DEFENSE ENVIRONMENTAL RESTORATION PROGRAM for FORMERLY USED DEFENSE SITES

FINDINGS

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

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ARCHIVES SEARCH REPORT FOR FORMER CAMP HERO MONTAUK, NEW YORK PROJECT NUMBER C02NY002403

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ORDNANCE AND EXPLOSIVES ARCHIVES SEARCH REPORT FOR FORMER CAMP HERO MONTAUK, NEW YORK PROJECT NUMBER C02NY002403

1. INTRODUCTION

a. Subject and Purpose

- (1) This report presents the findings of an historical records search and site inspection for ordnance and explosives (OE) presence located at the former Camp Hero, Montauk, New York. See plate 1 for general location map. The investigation was performed under the authority of the Defense Environmental Restoration Program for Formerly Used Defense Sites (DERP-FUDS).
- (2) The purpose of this investigation was to characterize the site for potential OE presence, to include conventional ammunition and chemical warfare materiel (CWM). This was achieved by a thorough evaluation of historical records, interviews, and an on-site visual inspection.

b. Scope

- The investigation focused on approximately 468.69 acres of ocean front land that was purchased by the War Department for the Department of the Army in 1942 to serve as Coastal Defense Installation defending the approaches to New York. Following the dissolution of the Coastal Defense Service in 1947, the camp became inactive for a period of time and then served as a training base for Antiaircraft Artillery (AAA) soldiers from 1951 until 1957. In addition, beginning in 1950, the Department of the Army began transfer proceedings to the Department of the Air Force for 96.4 acres of camp land so that a portion of the site could also be used as an Early Warning Radar Station. Camp Hero, later renamed the Montauk Air Force Station (following Army departure and increase in Air Force mission and lands), remained active until 1982. At that time the majority of lands not already transferred were declared surplus, and transfer of the majority of remaining lands to the State of New York (for park purposes) and Town of East Hampton (for low cost housing) began.
- (2) This report presents the site history, site description, real estate ownership information, and confirmed ordnance presence, based on available records, interviews, and

the site inspection. It further provides a complete evaluation of all information to assess potential ordnance presence where actual ordnance presence has not been confirmed.

- (3) For the purpose of this report, OE presence consists of live ammunition, live ammunition components, CWM or explosives which have been lost, abandoned, discarded, buried, fired, or thrown from demolition pits or burning pads. These items were manufactured, purchased, stored, used, and/or disposed of by the War Department (now Department of Defense). Such ammunition/components are no longer under accountable record control of any DOD organization or activity.
- (4) Expended small arms ammunition (caliber .50 or smaller) does not constitute an OE presence. OE further includes "explosive soil" which refers to any mixture in soil, sands, clays, etc., such that the mixture itself is explosive. Generally, 10 percent or more by weight of secondary explosives in a soil mixture is considered explosive soil.

2. PREVIOUS INVESTIGATIONS

a. 1990 Preliminary Assessment of Eligibility (PAE)

- (1) A PAE of the former Camp Hero was conducted under DERP-FUDS by the U.S. Army Corps of Engineers, New York District (CENAN) in October 1990 and revised in July 1998 (site number CO2NY002400). At that time, it was determined that the site was formerly used by the U.S. Army and Air Force (see document E-1 and plate 1).
- (2) The signed Findings and Determination of Eliqibility (FDE) concluded that the site consisted of 468.49 acres used from August 1944 to April 1983 and was eligible for restoration under the purview of DERP-FUDS (see table 2-1 and document E-1). However, during the course of this investigation it was discovered that actual fee acres consisted of 468.69 acres (see document L-4). In addition, a use agreement (.03 acres), three leases (totaling 2.24 acres), one permit (0 acres), and numerous cable and utility easements outside of the 468.69 fee parcel of Camp Hero Land were included in Camp Hero land acquisition. The land use agreement was for a .03 acre parcel in front of the Montauk Point Lighthouse in which a fire control tower (housing a 37mm AAA weapons section) and auxiliary power plant were built. This was the only addition to site lands which had a significant OE relevance, and should be considered for inclusion with site lands. The three leases, totaling 2.24 acres, were for pier, railhead, and cable center facilities outside of site lands, in which no evidence could be found of any OE presence or remaining presence. The permit was for the use of

a Navy pier and crane outside of site lands (see documents E-2 through E-4, G-1, G-3, L-4, L-5, and Plate 4). In addition to use agreement lands, an ocean firing zone, consisting of 756,491.75 acres, and a near shore ordnance area, consisting of 44.88 acres, were determined to exist due to coastal defense and antiaircraft artillery firing activities at Camp Hero and should be included with site acreage (see Plates 4 and 5). Although Area L is FUDS qualified, it will not be added to the FUDS database in accordance with Headquarters, U.S. Army Corps of Engineers Military Projects Office (CEMP-RF) memorandum, dated 15 March 1994 (see document F-18).

(3) Table 2-1 presents an overall view of the PAE phase.

BLE 2-1					
DERP-FU	DS PRELIMIN	IARY ASSESSI	MENT OF ELIGIE	SILITY PROJECTS	
Project	DERP	Present			
Number	Category	Phase	Comments	Location	
CO2NY002401	BD/DR		Recommended		
CO2NY002402	HTRW		Recommended		
CO2NY002403	OE	SI	Ordnance & Explosive	Camp Hero (see plates 1 & 2)	

b. Other Investigations

- (1) A Camp Hero Feasibility Study and Hazardous Materials Survey Preliminary Report was prepared in June 1998 by Cashin Associates, P.C., Hauppauge, New York, for the New York Office of Parks, Recreation, and Historic Preservation, Babylon, New York.
- (2) This report outlined several areas within the former Camp Hero which possessed an actual or potential Hazardous and Toxic Waste (HTW) presence, primarily associated with former building and utilities debris and residue and discarded containers. In addition, an area was addressed in this report in which projectile fragments were discovered, presenting an OE potential. This area was investigated during the course of this investigation due to the stated discovery and other discoveries in that immediate area, and will be identified later in this report in information pertaining to Area H (see reference B-9).

3. SITE DESCRIPTION

a. Existing Land Usage

(1) Former Camp Hero site lands are located on the extreme eastern tip of the south fork of Long Island, New York, approximately five (5) miles east of the Village of Montauk. The

former site is bounded by Montauk Highway (Route 27) to the north, the Atlantic Ocean to the south, Montauk Point State Park to the east, and an undeveloped nature preserve owned by the state to the west.

- (2) Presently, the major portion of former site lands serve as a New York State Park which is predominately restricted from public use, with the exception of the southern site bluff area. This is an area in which controlled access is provided to the beach for surf fishing. The beachfront and bluff area also may be accessed by pedestrians from the beachfront. Security patrols by park personnel occur daily through the majority of site lands.
- (3) Most of the remaining former military buildings on the site are unoccupied structures in various states of disrepair. Two of the former military buildings remain in use; a maintenance shop (utilized by State Park Service personnel) and a residence (occupied by a New York State Park Police Officer).
- (4) Projected future use of the land by the state includes opening the site for public uses that could include hiking, fishing, and accommodations in the form of cabins for rent. Some of the historic structures may be renovated for public touring (see document H-43).
- (5) Table 3-1 on the next page lists the current listed owners, acreage's and OE areas that are appropriate to this project.

b. Climatic Data

- (1) The climate of the area is broadly representative of the humid continental type which prevails in the Northeastern United States.
- (2) The average yearly rainfall is 46.07 inches, with most falling in March, April, and August. It is uncommon for the eye of a tropical storm to pass directly over Long Island. Tropical weather systems moving along the Atlantic Coast, however, are capable of producing episodes of heavy rain and strong winds in the late summer or fall.
- (3) The winter season is relatively mild. Below zero temperatures are reported on only one or two days in about half the winters. The average yearly snowfall is about 29 inches, with most falling December through March. Coastal low-pressure systems, Northeasters, are the principal source of this snow. These weather systems will occasionally produce a heavy snowfall.

There are usually extended periods during the winter that the ground is bare of snow.

- (4) The average annual temperature is 52.2 degrees Fahrenheit (F). In the summer months (June through August), the daily average is 71.1 degrees. The record high was 101 degrees in July of 1991. In the winter months (December through February), the average is 30.9 degrees. The record low was -7 degrees in January of 1988.
- (5) The average relative humidity at noontime is 55 per cent. Humidity is higher at night, and the average at dawn is 70 per cent. The sun shines 65 percent of the time possible in summer and 50 percent in winter. The prevailing wind is from the west-northwest. Wind-speed is highest, 14 miles per hour, in spring (See references B-7 and B-8).

TABLE 3-1					
	CURRENT LAND USAGE				
AREA	FORMER USAGE	PRESENT OWNER	PRESENT USAGE	SIZE/ ACRES	COMMENTS
Α	Fire Control/37mm AAA Station (Additional Lands)	U.S. Coast Guard (CG)	Lighthouse/ Museum	.03	See plates 4 & 8
В	Battery 216	New York State	State Park	2.90	See plates 4 & 8
C	AAA Firing Area	New York State	State Park	5.80	See plates 4 & 8
D	AAA Battalion Bivouac Area	New York State	State Park	11.00	See plates 4 & 8
E	Battery 113 (Dunn)	New York State	State Park	1.80	See plates 4 & 8
F	Battery 112	New York State	State Park	2.23	See plates 4 & 8
G	Makeshift Small Arms Firing Range	New York State	State Park	. 60	See plates 4 & 8
Н	Ordnance Destruction Range	New York State	State Park	8.00	See plates 4 & 8
I	Target Plane Launching Area	New York State	State Park	1.00	See plates 4 & 8
J	Plotting/Switchboard Rooms	New York State	State Park	.50	See plates 4 & 8
K	Near Shore Ordnance Area (Additional Lands)	New York State	State Park	44.88	See plates 4 & 8
L	Off Shore Ordnance* Area (Additional Lands)	New York State	State Park	756,491.75	See plates 4, 5, 6, & 8

TABLE 3-1 (continued) CURRENT LAND USAGE				
FORMER AREA USAGE	PRESENT OWNER	PRESENT USAGE	SIZE/ ACRES	COMMENTS
M All Other Lands	New York State, East Hampton Town, U.S. Coast Guard & Multiple Private Owners	CG Lorans		See plates 4, 8, & 9
	TOTAL FEE ACRES: TOTAL ADDITIONAL A TOTAL ACREAGE	ACRES:	468.69 756,536.66 757,005.35	

^{*} Note: Area L, although FUDS qualified, will not be added to the FUDS database in accordance with Headquarters, U.S. Army Corps of Engineers Military Projects Office (CEMP-RF) memorandum, dated 15 March 1994 (see document F-18)

c. Topography

The entire project area land rises abruptly along the ocean front and then gradually slopes northward. Several high points are in the area, and in general the land contour consists of numerous ridges and depressions. Most of the general topography drains into swamps, situated throughout the area. There is also approximately 5,500 feet of man-made drainage ditches on the site. The entire area, with the exception of the developed structures, roadways, oceanfront, and southern bluff area, is covered with a dense growth of scrub oak and brush.

d. Geology and Soils

- (1) The soils of Suffolk County are a complex mixture of weathered mineral material, organic matter, water, air, and living organisms. The mineral material, mainly granite, was deposited as a result of glaciation during the Wisconsin age.
- (2) As the glacier moved over the county, it carried large quantities of rock, much of which was ground into gravel, sand and silt-size particles. Part of this material was deposited directly by the glacier in a compact, heterogeneous mass called glacial till.
- (3) In addition to the materials within the glacier, the glacier moved large quantities of materials ahead of it, the material that was ahead of the glacier was left in place as a ridge called a terminal moraine.
- (4) After stopping, the glacial till melted and enormous quantities of swiftly flowing water ran from the glacier, carrying and sorting the glacially transported materials. In addition to carrying large quantities of material, the water reworked the mixed materials in the moraine and left much of it

in a stratified condition. Most of the material carried from the glacier was sand and well-rounded gravel, which was redeposited on a broad plain in front of the terminal moraine. These stratified sand and gravel deposits make up the substratum of most of the soils in the County.

- (5) Upon further retreat of the ice, most of the till and parts of the outwash and morainic deposits were covered by water or wind-deposited silt, clay, and fine or very fine sand to varying depths (see reference B-10).
- (6) According to the Soil Survey for Suffolk County, the former Camp Hero property contains the following soil types (see reference B-6):
- Bridgehampton silt loam, till substratum, 2 (two) to 6 (six) percent slopes (BhB): This soil type is a deep, well drained, medium textured soil that formed in thick silty deposits over coarse sand and gravel. This soil is generally level to gently sloping and is located mainly on uneven moraines in the project area. The surface layer is dark brown silt loam 11 (eleven) inches thick. The upper part of the subsoil, to a depth of about 23 (twenty-three) inches, is yellowish-brown and light olive-brown, friable silt loam. Below, to a depth of about 34 (thirty-four) inches, is friable, olive silt loam that contains grayish-brown mottles. The lower part of the subsoil, to a depth of 48 (forty-eight) inches, is strong brown, friable silt loam that contains yellowish-brown and olive gray streaks. The substratum is a gravely sandy loam till. The hazard of erosion of this soil type is moderate. This soil type has a high available moisture capacity. Permeability is moderate in the silt loam layers and moderately slow in the till substratum of the till phases.
- (b) Bridgehampton silt loam, till substratum, 6 (six) to 12 (twelve) percent slopes (BhC): This soil type is a deep, well drained, medium textured soil that formed in thick silty deposits over coarse sand and gravel. This soil is generally level to gently sloping and is located mainly on moraines in the project area. The profile of this soil is similar to that of BhB, except that it is generally a few inches shallower to the till of this type and it has a darker surface layer. This soil type has a high available moisture capacity. The hazard of erosion of this soil type is moderately severe. Permeability is moderate in the silt loam layers and moderately slow in the till substratum of the till phases.
- (c) Escarpments (Es): Escarpments are made up of bluffs that are present along the Atlantic coastline on the southern boundary of site lands. The soil horizons have not

formed in this actively eroding material. Except for a few scattered areas, this unit is devoid of vegetation. Height of the escarpments on site lands ranges from 20 (twenty) feet to more than 100 feet. The material in the escarpments is sandy loam or loamy sand. Many of the escarpments have large boulders embedded in the soil, which roll to the beach as the escarpment erodes.

- Montauk fine sandy loam, 3 (three) to 8 (eight) percent slopes (MfB): This soil type is a deep, well drained, moderately course textured soil that formed in fine sandy loam or in a mantle of silt loam and loam. This soil has a fragipan over a compact firm glacial till. This soil is found on moraines, and in many places slopes are complex or undulating. The profile of this soil is brown to dark brown fine sandy loam about 2 (two) inches thick. The subsoil is yellowish-brown, friable to very friable fine sandy loam to a depth of about 27 (twenty-seven) inches. The lower part is a dark-brown to reddish-brown sandy loam fragipan to a depth of about 40 inches. It is firm and brittle, and the content of gravel is 5 (five) to 10 (ten) percent. The substratum, to a depth of about 60 (sixty) inches, is reddish-brown to dark-brown loamy sand that is firm and brittle. This soil type has a moderate to high available moisture capacity. The hazard of erosion of this soil type is moderate to slight. Permeability is moderate to moderately rapid in the surface layer and in the upper part of the subsoil and moderately slow in the fragipan and underlying till.
- (e) Montauk fine sandy loam, 8 (eight) to 15 (fifteen) percent slopes (MfC): This soil type is a deep, well drained, moderately course textured soil that formed in fine sandy loam or in a mantle of silt loam and loam. This soil is on It has an uneven surface and many kettle holes that are characteristic of this landform. The profile of this soil is brown to dark brown fine sandy loam about 2 (two) inches thick. The subsoil is yellowish-brown, friable to very friable fine sandy loam to a depth of about 27 (twenty-seven) inches. lower part is a dark-brown to reddish-brown sandy loam fragipan to a depth of about 40 inches. It is firm and brittle, and the content of gravel is 5 (five) to 10 (ten) percent. substratum, to a depth of about 60 (sixty) inches, is reddishbrown to dark-brown loamy sand that is firm and brittle. soil type has a moderate to high available moisture capacity. The hazard of erosion of this soil type is moderately severe. Permeability is moderate to moderately rapid in the surface layer and in the upper part of the subsoil and moderately slow in the fragipan and underlying till.

- (f) Montauk silt loam, 3 (three) to 8 (eight) percent slopes (MkB): This gently sloping to undulating soil is on moraines. Areas of this soil are medium too large in size. The profile of this soil is similar to that of MfB, except that the surface layer is silt loam, and the underlying layers are loam. This soil also contains more gray streaks in the substratum than MfB. Also, on site lands, this soil has a thicker, darker surface layer than MfB, which indicates a higher organic matter content. The hazard of soil erosion is moderate to slight.
- (g) Montauk soils, graded, 0 (zero) to 8 (eight) percent slopes (MIB): This soil type consists of areas of Montauk fine sandy loam, of Montauk silt loam, or of both. The areas have been altered by grading and are used for housing developments, shopping centers, industrial parks, or similar nonfarm purposes. They are nearly level and gently sloping soils. In most places the surface layer and the upper part of the subsoil have been removed, stockpiled, and partly replaced during grading operations, but the general profile of these soils otherwise is similar to that of MfB.
- Montauk soils, graded, 8 (eight) to 15 (h) (fifteen) percent slopes (MIC): This soil type consists of areas of Montauk fine sandy loam, of Montauk silt loam, or of both. These areas have been altered by grading and are used generally as building sites for homes. They are small and generally are along the side slopes of drainageways. Slopes are complex. These soils have a profile similar to that of MfB, except that the surface layer and part of the subsoil have been removed during grading operations. The cut material is stockpiled and then partly replaced, but not to an extent that this is done in less sloping areas. Also, more cut material is used to fill natural irregularities in the landscape than on Montauk Soils, graded, 0 (zero) to 8 (eight) percent slopes. In these areas, the lower part of the subsoil and the substratum are generally left intact; consequently, they can be included in the Montauk The hazard of erosion is severe on these soils unless a cover of plants is established.
- (i) Montauk loamy sand, sandy variant, 3 (three) to 8 (eight) percent slopes (MnB): This soil type is made up of a deep, excessively drained, course textured soil that contains a fragipan over firm glacial till. This soil is found on gently sloping hillsides and gently undulating moraines. Areas are narrow and long on short side slopes along drainage channels. Areas that have complex slopes make up the larger acreages. The surface layer is very dark greet brown loamy sand about 3 (three) inches thick. The subsoil is friable or very friable, yellowish brown to dark yellowish-brown loamy sand to a depth of about 34

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(thirty-four) inches. The till substratum, to a depth of about 60 (sixty) inches, is dark yellowish-brown firm loamy sand. This soil type has a very low to low available moisture capacity. The hazard of erosion is slight on this Montauk sandy variant. Permeability is rapid in the upper 18 (eighteen) to 26 (twenty-six) inches, moderately slow in the fragipan, and moderate in the till.

- (j) Montauk loamy sand, sandy variant, 8 (eight) to 15 (fifteen) percent slopes (MnC): This soil type is on moraines along drainage channels and on large areas of complex, undulating to rolling topography where the dominant slope is 8 (eight) to 15 (fifteen) percent. The profile of this soil is similar to MnB, except that it has more gravel in the upper 2 (two) feet of some areas. The hazard of erosion is severe in areas that are cleared.
- (k) Montauk loamy sand, sandy variant, 15 (fifteen) to 35 (thirty-five) percent slopes (MnE): This soil is on the complex topography of the moraine. Most areas of this soil are large. Only a few small areas have simple slopes. Deep kettle holes and low steep sided ridges and mounds are characteristic in areas of this soil. The profile of this soil is similar to MnB, except expression of the fragipan is variable. Also, more areas of this soil contain as much as 15 (fifteen) percent coarse fragments, and more boulders are on the surface of this area. In places these soils have till below a depth of 4 (four) feet. Small knobs, ridges, and hogbacks included with this soil contain from 15 (fifteen) to 30 (thirty) percent gravel and cobblestones. These gravely areas are generally small, and they are in a complex pattern with non-gravely soil. The hazard of erosion is moderate to severe.
- (1)Muck (Mu): Muck is made up of very poorly drained organic soils that formed in partly decomposed or almost completely decomposed woody or herbaceous plants. The areas are generally level and occur in the bottom of closed depressions or kettle holes. Most areas on site lands are in many depressions that are irregular in shape. A few areas, however, are between tidal marshes and areas of better drained upland soils. made up of 16 (sixteen) to 48 (forty-eight) inches of spongy, black or dark-reddish organic materials over loose sand and The amount of partly decayed plants in the organic layer varies. The water table is at or near the surface most of the year. Several inches of water are on the surface late in winter and early in spring. Included with this land type in mapping are small areas that are muck to a depth of more than 48 (fortyeight) inches.

- Wallington silt loam, till substratum (Wa): This soil consists of deep, somewhat poorly drained, medium textured soils that have a fragipan at a depth of 18 (eighteen) to 24 (twenty-four) inches. Slopes are 5 (five) percent or less They formed in a mantle of silty material of moderately coarse textured or coarse textured material. It is mainly on wet draws and lower side slopes adjacent to the better drained, higher lying Bridgehampton silt loam, till substratum soil. representative profile of till substratum phase, a thin layer of leaves and organic matter is on the surface in the wooded areas. Below this layer is a surface layer of very dark gray silt loam about 2 (two) inches thick over a subsurface layer of grayishbrown to light brownish-gray silt loam that has a few distinct The subsurface layer extends to a depth of about 10 mottles. (ten) inches. The upper part of the subsoil, to a depth of about 18 (eighteen) inches, is mottled, greet brown friable silt loam. The lower part of the subsoil, to a depth of about 38 (thirtyeight) inches, is mottled light olive-brown silt loam that makes up a firm and brittle fragipan. The substratum to a depth of 47 (forty-seven) inches is mottled gray to light-gray, friable silt Below to a depth of about 60 (sixty) inches, the substratum consists of firm, strong-brown fine sandy loam glacial Wallington soils have a high water table within 6 inches of the surface during wet periods, but it drops to about 18 inches during dry periods. Available moisture capacity is moderate to high in the root zone. Permeability is high above the fragipan, moderately slow to slow in the fragipan, moderate in the upper part of the substratum, and moderate to moderately slow in the underlying till. The hazard of erosion is slight. Included with this soil in mapping are very poorly drained silt loams on the lowest part of the drainageways. In most cases these included soils have a thick surface layer of black, mucky silt loam. Near the dunes this soil is covered by 2 (two) to 3 (three) feet of overblown sand.
- Whitman sandy loam (Wh): This soil type consists of deep, very poorly drained, moderately coarse textured soils that contain a fragipan at a depth of 10 (ten) to 20 (twenty) inches. This soil formed in a mantle of sandy loam to light loam over thick deposits of moderately coarse textures to coarse textured glacial till. Slopes are 5 (five) percent or It is on wet draws and lower side slopes adjacent to better drained montauk soils on higher side slopes. Areas are small, and generally follow the drainage pattern of the landform. In a representative profile a thin layer of loose leaves and organic matter is on the surface in wooded areas. Below this layer is a surface layer of black sandy loam about 3 (three) inches thick. It is underlain by a subsurface layer of very dark gray loam to a depth of about 10 (ten) inches. Below is a very friable, mottled, dark grayish-brown light sandy loam layer. At

a depth of about 14 (fourteen) inches and extending to a depth of 50 (fifty) inches are firm and brittle fragipan layers of mottled grayish-brown, gray, and brown sandy loam. Whitman soils have a seasonal high water table within 6 (six) inches of the surface during wet periods, but it drops to a depth of about 24 (twentyfour) inches during dry periods. Permeability is moderately high above the fragipan, moderately slow or slow in the fragipan, and moderately slow below the fragipan. Available moisture capacity is moderate to a depth of 24 (twenty-four) inches in the root zone. The hazard of erosion is slight. Included with this soil in mapping are small areas of moderately well drained sandy loams and very poorly drained silt loams that are too small to map separately. Many areas that have large stones on the surface and throughout the soil are also included.

e. Hydrology

- (1) The sole source of fresh groundwater on the Montauk peninsula is a series of Pleistocene glacial deposits that are bounded below and laterally by salty groundwater and surface water. The lower unit of stratified drift is the only major freshwater-bearing unit in the Montauk area and is therefore referred to as the principal aquifer. According to U.S. Geological survey data, the aquifer ranges in thickness from about 85 (eighty-five) feet in the central part of the Hither Hills area to as much as 130 (one hundred thirty) near Montauk Point. In areas where overlying till or unstratified drift is absent, the unit is characterized by stratified outwash up to the surface. In these places the aquifer extends from the marine clay to the water table, a thickness not exceeding 130 (one hundred thirty) feet.
- (2) Overlying the lower unit of stratified drift (the principal aquifer) is an undifferentiated unit composed of tightly interbedded layers of till, stratified drift, and moraine deposits.
- (3) The bottom of the undifferentiated drift ranges from more than 30 (thirty) feet above sea level in the Montauk Point area to nearly 50 (fifty) feet above sea level in the Hither Hills area. The till acts as a confining layer.
- (4) Wherever the potentiometric surface of the aquifer is above the bottom surface of the till unit, the aquifer is confined; wherever this unit is absent or above the potentiometric surface, the aquifer is unconfined and responds as a water-table aquifer with a free-moving surface.

- (5) Precipitation that seeps into the soil and is not lost through evapotranspiration percolates downward into the till unit and discharges near the shore, the rest continues to move downward to the aquifer.
- (6) The till cannot yield substantial amounts of water to wells because of poor sorting and high clay content. Despite the numerous lenses of perched water, the till unit acts mainly as a confining bed that inhibits recharge to the underlying aquifer.
- (7) The amount of water recharging the principal aquifer is difficult to estimate. Although recharge is inhibited in places, the till unit is discontinuous, and water may move laterally around the confining layers. Also, high vertical gradients in the confining beds maintain downward flow. These two factors suggest that a large volume of water reaches the principal aquifer, despite the low permeability of the overlying deposits.
- (8) In summary, the configuration of the water table is controlled by the thickness and water-transmitting properties of the aquifer, by the water transmitting properties of the underlying deposits, by the quantity and location of recharge, and by the location and nature of natural recharge points (see references B-6 and B-10).

f. Natural Resources

- (1) Natural resources which may occur or are known to occur on former Camp Hero lands that are considered threatened, endangered, or of unusual concern are listed in Table 3-2 on the next page (also see document E-22).
- (2) Before any intrusive measures are initiated, interested parties should contact the New York State Department of Environmental Conservation, Wildlife Resources Center, Latham, New York (see Appendix A).

g. Historical/Cultural Resources

James Warren of the New York State Parks, Recreation, and Historic Preservation Field Services reported that there are archeologically sensitive areas and National Register of eligible historical structures on former Camp Hero lands as listed in Table 3-2 on the next page. **Any** actions taken within subject area may require oversight by the New York Historic Preservation Bureau. This office should be contacted prior to the conduct of any remediation (see Appendix A and document E-21).

	TABLE 3-2	- A		
NATURAL/CULTURAL RESOURCES				
Resource Classification	Type	Comment		
Wildlife	American Burying Beetle	Endangered (Federal & State)		
Vegetation	Golden Dock	Threatened (State)		
	Swamp Pink	Rare (State)		
	Rose Coreopsis	Rare (State)		
	Sandplain Gerardia	Threatened (State & Federal)		
	Black Crowberry	Rare (State)		
	Grassleaf Ladies'- Tresses	Rare (State)		
.	Salt-Marsh Spikerush	Rare (State)		
	Meadow Horsetail	Rare (State)		
	Black-Edge Sedge	Rare (State)		
	Meadow Horsetail	Rare (State)		
	Nantucket Juneberry	Endangered (State)		
	Crested Fringed Orchis	Endangered (Federal & State)		
Historical	National Register of Eligible Structures	WWII era batteries, former recreation hall and fire control station resembling cottage.		
Archaeological	Sensitive Area	Due to known sites nearby and history of the property.		

4. HISTORICAL ORDNANCE PRESENCE

a. Chronological Site Summary

- (1) Military Activity Not Associated with Camp Hero in the Montauk Point Area, Prior To and During the Period of Operation of Camp Hero (which may have contributed to an OE presence on Camp Hero, as discussed later in this report).
- (a) Military activity, for many service branches, was quite substantial in the Montauk Point area prior to the formulation of plans for the development of the Camp Hero coastal defense installation, and in some cases, extending into its period of operation and beyond.
- (b) Revolutionary War and War of 1812 American and British warships reportedly used the "Montauk Bluffs" for firing practice with cannons (see document H-26).
- (c) Teddy Roosevelt and his Rough Riders, part of an estimated 29,500 men force returning from the Cuba, Puerto Rico, and Florida campaigns of the Spanish American War in 1898, camped in the Fort Pond Bay area of Montauk. The installation established for this force was called Camp Wikoff and served as a quarantine station for these returning soldiers. This camp was active for only a few months in 1898 (see documents E-15 and L-10).
- (d) Between WWI and WWII a Navy observation post was present in the Montauk area. Two reconnaissance blimps were stationed at a hangar adjacent to the current Montauk Tower and a number of oceangoing seaplanes were positioned at a Naval Base on Fort Pond Bay (see document H-40 and reference B-3).
- (e) From 1921 (and possibly earlier) until around 1923, thousands of soldiers from Regular Army, National Guard, and Citizen Military Training Corps (CMTC) Field Artillery units camped and trained in the Montauk area. A campsite on the east side of Fort Pond Bay, presumably named Camp Walsh, was chosen to accommodate the training units. This was possibly the same site area used by returning Spanish American War soldiers, Camp Wikoff. The location in which any artillery fire occurred or impacted is unknown (see documents H-1 through H-5).
- (f) Commencing in 1936, Army Air Corps planes conducted bombing target practice on an island off of Montauk Point known as Gardiners Point. This island also contained an abandoned Spanish American War Fort known as Fort Tyler. Use of this bombing target area continued by the Army and Navy until around the 1970s (see documents H-6, H-8, and H-42).

(g) In 1942, the Department of the Navy built a facility on Fort Pond Bay to develop and test torpedo propulsion systems. This facility remained in existence until the end of WWII (see document H-40 and reference B-3).

(2) Camp Hero Site Approval and Acquisition

- (a) On 30 January 1933, the Harbor Defense Board of the First Corps Area provided for the development of a 100 acre harbor defense installation in the town of East Hampton, Suffolk County, Long Island, New York, for the location of a 16-inch fixed gun battery of two guns at Montauk Point (see document F-1).
- On or about 26 August 1941, the Secretary of War determined a military necessity existed for the acquisition of approximately 468.666 acres of land at Montauk, Long Island, New York (later to be named Camp Hero), to be used as a site for an approved harbor defense installation. This was based on the approved proceedings of a Board of Officers, which convened 21 October 1940, and whose findings were released 9 November 1940. Land for this installation was purchased and petitioned for military availability on 13 January 1942, with 468.69 acres fee acquired. Also included in installation lands was one use agreement (.03 acres), three leases (totaling 2.24 acres), and one permit (no acreage), outside of the 468.69 fee parcel of Camp Hero Land. The land use agreement was for a .03 acre parcel in front of the Montauk Point Lighthouse and under government ownership since 1796, in which Headquarters, New England Sector gained approval in 1942 from the U.S. Coast Guard and Chief of Naval Operations to construct a fire control tower and auxiliary power plant. The three leases, totaling 2.24 acres, were for a pier (.29 acres, Long Island Railroad Company) and railhead facility (.27 Acres, Montauk Beach Company) on/at Fort Pond Bay and an inland (Montauk) cable center (1.68 acres, Montauk Beach Company). The permit (no acreage, Department of the Navy) was for the use of a Navy pier and crane on Fort Pond Bay (see documents E-3, F-2, G-1, G-3, and L-4).
- (c) Based on 1941 Harbor Defenses of Long Island Sound modernization program guidelines, the Secretary of War directed the construction of three (3) batteries and supporting facilities to be constructed at Montauk Point (Camp Hero). Battery 112, containing two 16-inch casemated guns, Battery 113, containing two 16-inch casemated guns, and Battery 216, containing two 6-inch shielded guns were included in this directive (see document E-2).

(3) Camp Hero Development and Use

- Construction of 16-inch gun Battery 113 commenced on 23 March 1942 and was completed on 5 June 1943. Construction of 16-inch gun Battery 112 commenced on 5 June 1943 and was completed on 12 January 1944. Construction of 6-inch gun Battery 216 commenced on 26 May 1942 and was completed on 18 June 1943 (see document E-4). Each battery contained two (2) guns, with Batteries 112 and 113 containing Navy MKIIM1 16-inch guns on M4 mounts that were delivered to the batteries in January and August 1943 (see documents E-4 and F-7), respectively, and Battery 216 containing M1903A2 6-inch guns on M1 mounts that were delivered to the battery in January 1943 (see documents E-4 and Each battery was constructed as a self sufficient facility containing commercial and individual power supplies, water supply systems, powder and shell rooms, central traverse magazines, latrines, oil fired forced hot water heating systems, ventilation systems, and dehumidifying systems (see document E-4). improvement to the batteries may have included a gas defense system, a M1 collective protector unit model (see documents D-4 and E-3).
- In addition to battery construction, five fire (b) control/observation facilities and two plotting room structures were constructed on the Montauk Point installation (Camp Hero) in support of the installations' guns. The fire control and observation stations also supported off site guns of the Wilderness Point Battery 111 and Watch Hill Battery 114 reservations. The fire control and observation stations consisted of two cottage type structures (one near the ocean and one inland), two manhole type structures (one each at batteries 112 and 113), and one tower type structure (behind the Montauk Point Lighthouse). Fire control stations were also built on five sites outside of Camp Hero, four (4) westward and one (1) northward along the coast, to support the camp's Batteries 112, 113 and 216, and external (off-site) supported Batteries 111 and Two (2) stations were built in Ditch Plains, and one station (each) was built in Shagwong, Amagansett, Hither Hills, and Easthampton. Each station contained optical instruments, one for obtaining target angles for transmittal to a central battery plotting room, and one for obtaining the fall of shot and obtaining correction data. The two plotting room structures constructed on Camp Hero grounds were constructed outside and away from Batteries 112 and 113. Battery 216 contained an internal plotting room. Communications between all of the Montauk Point installations' facilities and external facilities of the harbor defense network of Long Island Sound were made possible through an elaborate cable network (see documents E-2, E-3, E-4, F-13, L-3, L-6 through L-8, and Plate 2).

- (c) On 2 May 1942, the Adjutant General of the Army designated the seacoast defense installation in the vicinity of Montauk, New York, as Camp Hero, in honor of Major General Andrew Hero. Major General Hero was the Chief of Coast Artillery during the 1920's (see document F-14).
- (d) In addition to gun batteries and battery support facilities, a cantonment area was requested and established at Camp Hero consisting of barracks, messhalls, hospital facilities, administrative facilities, a motor repair shop, a recreation facility, sentry boxes, and water supply and sewerage facilities to accommodate 600 enlisted men, 37 officers, and their required equipment (see documents F-5 and L-2). A few structures included in the purchase of Camp Hero lands were modified and utilized to meet aforementioned cantonment requirements (see documents L-1 and L-2).
- (e) To disguise Camp Hero from enemy observation by land or sea, elaborate obscurement actions were taken during and after construction activities. Above ground fire control and observation stations were constructed to resemble seacoast cottages or towers. Batteries were covered by earth and native vegetation species were planted upon them. In addition, similar planting, mulching, netting, toning, grading, and simulation activity occurred throughout the camp to insure total disguise (see documents E-4 and F-8).
- (f) On 10 August 1942, the Secretary of War designated Battery 113, at Camp Hero, as Battery Dunn in honor of the late Colonel John M. Dunn (see document F-3).
- From 1943 through 1944, upon the gradual completion of the construction of batteries and facilities, the site is believed to have become incrementally operational, serving in a harbor defense capacity for the eastern tip of Long Island and waterways leading to New York City, Providence, Rhode Island, and New Haven, Connecticut. Camp Hero was a subinstallation of the 11th Coast Artillery Regiment (Harbor Defense) located at Fort H.G. Wright, Fischers Island, Block Island Sound, New York. Fort H.G. Wright was under the control of the Eastern Defense Command. Elements from the 11th Coast Artillery Regiment, along with elements from the 242nd Connecticut National Guard Coast Artillery Regiment (Harbor Defense), which augmented the 11th Coast Artillery Regiment at Fort H.G. Wright, manned Camp Hero. Manning details of batteries varied somewhat, but ordinarily consisted of 160 men per 16-inch battery and 100 men per 6-inch battery. As previously stated, total manning for Camp Hero consisted of 600 (six hundred) enlisted men and 37 (thirty seven) officers, based on

construction estimates for that number of soldiers (see documents E-15, F-5, F-12, F-14, F-15, and I-17).

- (h) To protect Camp Hero from air attack, antiaircraft resources were assigned to Camp Hero. Although fixed antiaircraft armament was not available for Camp Hero (see document F-9), a 37mm weapons section (of two guns) and .50 caliber antiaircraft weapon platoons (of four (4) guns each) were utilized to provide antiaircraft defense of the camp proper. 37mm weapon section was located on the roof of the fire control and observation tower (located behind the lighthouse). (.50) caliber automatic weapon platoons of four (4) guns each were positioned at Batteries 112, 113, and 216 of the camp and an additional platoon was positioned on the roof of one of the fire control (cottage) structures of the camp. 37mm weapon sections were also positioned at locations outside the confines of Camp Hero at Ditch Plain (Windmill), Culloden Point, and Shagwong (see document E-2). In 1945, due to modernization program guidelines, 40mm guns replaced the 37mm guns at the aforementioned 37mm positions (see document E-3). Also supporting some of these antiaircraft assets were two (2) portable searchlights with 35foot towers at Camp Hero, two (2) searchlights at Hither Hills, and two (2) searchlights at Shagwong (see documents D-1, D-3,and E-2).
- (i) Battle allowances of ammunition and powder charges for the Camp Hero battery guns were stored within the individual batteries of the camp. A requirement for war reserve allowances of ammunition for the batteries also existed. this ammunition was stored outside of Camp Hero installation boundaries at an unknown central depot location under the control of the Chief of Ordnance. Batteries 112 and 113 (Dunn) had a battle allowance of 200 16-inch 2,240-lb projectiles and war reserve allowance of 300 16-inch 2,240-lb projectiles. 216 had a battle allowance of 200 6-inch 90-1b HE (high explosive) rounds and 300 6-inch 105-lb AP (armor piercing) rounds and a war reserve allowance of 300 6-inch 90-lb HE rounds and 400 6-inch 105-lb AP rounds. It is presumed that the antiaircraft weapon ammunition for Camp Hero and nearby facilities was also stored within the battery ammunition storage facilities of Camp Hero, as no other historical or physical evidence is present to display a separate storage facility for This was conceivably possible due to the storage capacity of 400 rounds of ammunition in Batteries 112 and 113, and a battle allowance requirement of only 200 rounds of ammunition (see documents D-1, E-2, and E-3).

- (j) On 22 June 1944, the .27 acre lease with the Montauk Beach Company for the railhead facility at Fort Pond Bay was transferred to the Department of the Navy (see documents L-3 and L-4).
- (k) On 22 February 1945, Battery "A" Coast Artillery Battalion (Mustard-HD) held a Gas Identification Exercise at Camp Hero, actual location unknown. During this exercise, men were sent into clouds of mustard, phosgene, and lewisite. On this day the weather conditions were less than favorable (inversion) and the clouds hung close to the ground: thus, a high number of men expierienced irritations on their faces and arms. Because the inversion conditions were the cause of the men's irritations, it was stated that the exercises would only be held on favorable weather days (see document E-20).
- (1) On 8 June 1945, the .29 acre lease with the Long Island Railroad Company, for the pier facility at Fort Pond Bay was terminated (see documents L-3 and L-4).
- (m) On 25 September 1946, Camp Hero (subinstallation of Fort H.G. Wright) was reclassified as a Class I subinstallation assigned to the $1^{\rm st}$ Army in accordance with War Department Circular Number 292, dated 25 September 1946 (see document F-12).
- (n) On 31 July 1947, Camp Hero was placed in an inactive status in accordance with Department of the Army Circular Number 23, dated 16 October 1947 (see document F-12). During the period of coastal defense operations at Camp Hero, the 6-inch and 16-inch guns of Camp Hero were fired occasionally in practice, never in hostility (see documents E-15, F-16, I-5, I-8, and I-17).
- (o) On 7 February 1949, completion of the demilitarization and scrap removal of Battery 112's, 113's, and 216's 16-inch and 6-inch guns occurred (see documents H-9 and K-1).
- (p) Effective 31 December 1949, Camp Hero was declared excess to the needs of the Department of the Army by Department of the Army General Orders No. 1, dated 3 January 1950. This was based on the discontinuation of harbor defense sites. Also on 31 December 1949, authorization for the transfer of 96.94 of Camp Hero lands to the Department of the Air Force was granted, based on an Air Force requirement for an aircraft control and warning station at that location (see documents F-10, F-12, G-2, and G-3).

- (q) On 9 May 1950, the U.S. Army Corps of Engineers, New York District, authorized the excessing of fire control station (tower) facilities, an auxiliary power plant, and an access road constructed on .03 acres of Coast Guard property permitted to the Army until 28 December 1952. The Coast Guard requested the improvements installed on its property under the permit on 17 December 1949. Transfer is believed to have occurred shortly after the excess action (see document G-1).
- (r) On 13 June 1950, the 1.68 acre lease with the Montauk Beach Company, for the cable facility at an inland Montauk area, was terminated (see documents G-3 and L-4).
- (s) On 28 August 1950, the permit with the Department of the Navy for pier and crane facilities on Fort Pond Bay was retransferred to the Department of the Navy (see documents G-3 and L-4).
- (t) On 24 January 1951, Camp Hero was withdrawn from excess status and designated a Class I sub-installation of Fort Totten, NY, in accordance with 1st Army General Order Number 20, dated 13 February 1951. The site was to be used as a firing range and field exercise area for Antiaircraft Artillery (AAA) units in the vicinity of New York (see documents F-12 and G-6).
- (u) On 6 April 1951, 96.94 acres of Camp Hero lands were officially transferred to the Department of the Air Force, based on an Air Force requirement for an aircraft control and warning station at that location (see documents G-2 and G-3). Army fee holdings were now reduced to 371.756 acres
- (v) On 27 November 1950, prior to the official transfer of Camp Hero lands to the Air Force, the $773^{\rm rd}$ Aircraft Control and Warning Squadron (ACWS), an entity under the command of the Eastern Air Defense Force, was activated at Camp Hero. Prior to the arrival of the $773^{\rm rd}$, an AN/TPS-1B long-range search radar was activated at Camp Hero in 1948. The $773^{\rm rd}$ ACWS began preparing for operations on Army owned Camp Hero lands while awaiting construction and completion of facilities on the property transferred to the Air Force (see documents E-5, E-6, E-9, F-17, and H-27).
- (w) In January 1951, a representative of the 69th AA Battalion, Fort Totten, arrived at Camp Hero to coordinate future Fort Totten AAA unit training operations with the 773rd ACWS that would commence when battalion equipment arrived at the camp. Arrangements were made for the stationing of a permanent Army AAA cadre at the camp, with buildings unused by the 773rd to be made available to them, to enable the continuous training of Regular Army AAA personnel (see document E-5).

- (x) February 1951 marked the beginning of AAA unit training at Camp Hero. Ninety Millimeter (90mm) and quad .50 caliber antiaircraft artillery began firing exercises from firing positions established on the southern bluff of the camp overlooking the Atlantic Ocean. Tow target planes and radio controlled aircraft were utilized to gauge firing accuracy (later towed barges were also used). Due to limited facilities for the training units, the units bivouacked at the Camp. Ammunition for training exercises, when required, was stored in the internal bunkers of the now unused Battery 216. Restrictions to the waterways effected by firing activities were posted (see documents D-1, D-3, D-7, E-5 through E-14, H-10 through H-17, H-19 through H-22, I-3 through I-8, I-10, I-11, I-13, I-15, and Plates 3, 4, and 6).
- (y) Sometime in 1956, Army Special Forces personnel reportedly airdropped into Camp Hero lands and went into the wooded area for a week of training. The type of training conducted is unknown (see document I-16).
- (z) Training of Fort Totten AAA units continued until 1957. Known AAA battalions (and their assigned batteries) of the 52nd AAA Brigade of Fort Totten to participate in firing missions at Camp Hero were the 41st, 69th, 245th, 521st, 536th, 703rd, 715th, and 737th battalions. Weapon systems known to be fired by these units included 90mm guns, 120mm guns, .50 caliber machine guns, and 3.5-inch rockets (see documents D-1, D-3, D-5, E-5 through E-14, H-10 through H-17, H-19 through H-22, I-3 through I-8, I-10, I-11, I-13, I-15, K-1, and Plates 3, 4, and 6).
- (aa) On 21 October 1955 and 12 July 1957, the Secretary of the Army transferred 4.11 and 8.1 acres (respectively) of Camp Hero land to the Secretary of the Air Force for additional Air Force family housing facilities. Army fee holdings were reduced to 359.54, and Air Force holdings were increased to 109.15 acres (see documents G-3 and G-4).
- (bb) Effective 31 December 1957, the remaining Army portion of Camp Hero land was placed in an inactive status, in accordance with Department of the Army General Orders No. 1, dated 3 January 1958 (see document F-11).
- (cc) Beginning 3 January 1958, the Army portion of Camp Hero began to be maintained on a caretaker basis (see document G-5).
- (dd) Returning to Air Force activity at Camp Hero, on 15 May 1951, the 773rd ACWS began their move to their newly constructed facilities on the Air Force portion of Camp Hero.

Beginning 6 February 1952, the Air Force property was renamed the Montauk Air Force Station (MAFS), at which time 773rd ACWS was reassigned to the 26^{th} Air Division (AD). The 773^{rd} was assigned the responsibility by the 26^{th} AD of operating the Air Defense Direction Center, with a mission of providing radar surveillance for the detection, identification, and interception of all aircraft entering its area of responsibility. Construction at the MAFS included the building, or modification of existing army buildings, of billeting, administrative, station support, and required radar facilities to perform their mission and accommodate a station compliment of approximately sixteen (16) officers and 160 airmen (see documents E-5, E-9, E-18, E-19, and F-17).

- (ee) On 8 January 1958, the 773rd ACWS was assigned to the New York Air Defense Sector (NYADS) in preparation for a change of mission. Due to the increase in speed and performance of manned aircraft and the use of missiles it was felt that manual air defense measures were not adequate and the 773rd would take it's place as a link in the new SAGE (Semi-Automatic Ground Environment) system. The SAGE system provided for the automatic transmission of radar data and the utilization of a centralized electronic computer system (at McGuire Air Force Base for NYADS) to furnish to the improved tracking and weapon handling resources the data required to cope with air raids by the enemy (see documents E-19, H-24, and H-27).
- (ff) On 1 October 1958, the 773rd ACWS was redesignated as the 773rd Radar Squadron (SAGE) and acquired their new mission. The new mission was to provide the NYADS with surveillance data of air traffic within their assigned subsector of responsibility; to accomplish radar mapping prior to the transmittal of such data to NYADS; to provide the 26th Air Division Combat Alert Center (Manual) and NYADS Sector Commander with the complete air picture in the event the SAGE direction center became disabled; and maintain a force in a maximum state of readiness for use in air defense. In order to accomplish this mission, a technically advanced AN/FPS-35 Specific Frequency Diversity Search Radar Unit was built at the MAFS, and became operational in December 1960 (see documents E-18 and H-27). Previous search and height finder radar units and later height finder radar units, with their dates of activation, may be found in document F-17.
- (gg) On 15 July 1960, approximately 359.54 acres of Army fee owned land and 3.1 acres of easement interest at Camp Hero were determined to be excess to Department of the Army requirements by Headquarters, Department of the Army, Office of the Deputy Chief of Logistics (see document G-5).

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- (hh) On 1 November 1960, the Army portion of Camp Hero land was placed under the care and custody of the U.S. Army Engineer District, New York. Contract care and custody of the camp continued (see document G-6).
- (ii) On 31 March 1964, the Department of the Army officially transferred 192.25 additional acres of Army Camp Hero lands to the Department of the Air Force. Army Camp Hero fee holdings were reduced to 167.296 acres, and Montauk Air Force Station holdings were increased to 301.40 acres (see document G-7).
- (jj) On 23 July 1970, the 3rd Naval District's Undersea Warfare Division and U.S. Navy Sea, Air, and Land Soldiers(SEALS) participated in an exercise on Camp Hero lands. The exercise was designed to test the operational capabilities of mobile equipment, contingency plans, and forces available for the protection of the sea approaches to the United States. The reservists defended the camp from an invasion of the SEALS who arrived by sea (see document H-29).
- (kk) On 26 December 1972, 6.25 additional acres of Army Camp Hero lands were officially transferred by the Department of the Army to the Department of the Air Force. Army Camp Hero fee holdings were reduced to 161.046 acres and Montauk Air Force Station holdings were increased to 307.65 acres (see document G-15).
- (11) On 18 July 1974, 119.26 acres of Army Camp Hero land was transferred to the State of New York by the Department of the Interior following the General Services Administration excess declaration of the property on 9 December 1965. Army Camp Hero holdings were reduced to 41.786 acres and Air Force holdings remained at 307.65 acres (see document G-16).
- (mm) On 16 September 1974 and 11 August 1977, 5.00 and 1.29 (respectively) additional acres of Army Camp Hero lands were officially transferred by the Department of the Army to the Department of the Transportation (U.S. Coast Guard). Army Camp Hero holdings were reduced to 35.496 acres, Air Force holdings remained at 307.65 acres, and Coast Guard holdings totaled 6.29 acres (see documents G-17 and G-18).
- (nn) On 26 June 1978, the Department of the Army officially transferred 17.40 additional acres of Army Camp Hero lands to the Department of the Navy. Army Camp Hero holdings were reduced to 18.09 acres, Air Force holdings remained at 307.65 acres, Coast Guard holdings totaled 6.29 acres, and Navy Holdings total 17.40 acres (see document G-19).

(4) Final Site Inactivation and Disposal

- (a) On 1 July 1980, the major mission of the Montauk Air Force Station was drastically reduced, leaving only five personnel to operate a ground-to-air radio station. Then in 1982, all activities at the station terminated (see document H-32).
- (b) On 15 March 1982, 4.39 Acres of Montauk Air Force Station (Camp Hero) land was declared excess by the General Services Administration. It was later transferred to the town of East Hampton on 1 June 1983. Army holdings totaled 18.09 acres, Air Force holdings totaled 303.26 acres, Coast Guard holdings totaled 6.29 acres, and Navy Holdings totaled 17.40 acres (see document L-9).
- (c) On 18 November 1982, the remaining 18.09 acres of Army Camp Hero lands were officially transferred by the Department of the Interior to the State of New York to be used for Public Park or public recreation purposes. Camp Hero Air Force holdings totaled 303.26 acres, Coast Guard holdings totaled 6.29 acres, and Navy Holdings totaled 17.40 acres (see document G-20).
- (d) On 1 June 1983, 24.40 Acres of Montauk Air Force Station (Camp Hero) land was transferred to the town of East Hampton. Air Force holdings totaled 278.86 acres, Coast Guard holdings totaled 6.29 acres, and Navy Holdings totaled 17.40 acres (see document L-9).
- (e) On 10 September 1984, 278 Acres of Air Force owned former Camp Hero land was transferred by the Department of the Interior to the State of New York by quitclaim deed. Camp Hero Air Force holdings totaled .86 acres, Coast Guard holdings totaled 6.29 acres, and Navy Holdings totaled 17.40 acres (see document L-9).
- (f) On 13 June 1985, 17.40 Acres of Navy owned owned former Camp Hero land was transferred to the Town of East Hampton (see document G-19). Camp Hero Air Force holdings totaled .86 acres and Coast Guard holdings totaled 6.29 acres. The Air Force remaining total is displayed as an unresolved .86 acre remaining balance on a final Montauk Air Force Station real estate project map (see document L-9). Current property ownership maps reflect a remaining government owned parcel of property in the amount of 7.5 acres on former Camp Hero property. The U.S. Coast Guard utilizes this parcel. However, it exceeds the 6.29 acres released to that entity (see document G-21).

(5) Post Site Activity and Use

The major portion of project lands, since their release from Department of Defense control, remain as limited access Public Park land. The predominant portion of the land is New York State owned, under the control of the New York State Parks Commission. The remaining local government interests includes a East Hampton Town controlled low income housing area, which consists of 27 former Air Force housing units, and a small amount of East Hampton Town owned undeveloped property. The U.S. Coast Guard continues to own 7.5 acres of former site lands at which they operate a LORANS-C station. Plans for predominately unrestricted public access to New York State Lands, once any former military hazards are removed, is being contemplated at this time. Controlled public access is now allowed to fisherman on the southern bluff area of the site.

b. Ordnance Related Records Review

- (1) An historical document search was conducted by the Site Inspection (SI) team to obtain ordnance-related records relevant to Camp Hero and the Montauk Air Force Station. Research sites included, but were not limited to, National and State Archives, state, county, and local libraries, historical centers and societies, local newspapers, state, county, and local law enforcement and explosive ordnance disposal agencies, and current owners of Camp Hero (see appendix A for a complete listing of contacts). The following documents are important to the verification of real property use by the Department of Defense and the presence or non-presence of ordnance and explosive items:
- (2) A War Department Adjutant General's Office memorandum, dated 19 July 1938, states that an approved site board report of 30 January 1933 (Harbor Defense Board of the First Corps Area) provided for a 100 acre harbor defense installation in the town of East Hampton, Suffolk County, Long Island, New York, for the location of a 16-inch fixed gun battery of two guns each at Montauk Point. Subsequent to the 16-inch battery determination was made, the plans were changed to provide for a 14-inch railway battery at Montauk, however, the 16-inch batteries were determined to be more prudent due to mobility, range, maintenance, and logistical problems encountered with 14-inch railway guns (see document F-1).
- (3) A War Department Adjutant Generals Office memorandum endorsement, dated 26 August 1941, states that the Secretary of War has determined the existence of a military necessity for the acquisition of approximately 468.666 acres of land at Montauk,

Long Island, New York, as a site for approved harbor defense installations (see document F-2).

- (4) A War Department Office of the Chief of Engineers report, dated 1941, discusses and illustrates harbor defense battery and battery support requirements for the modernization program of the Harbor Defenses of Long Island Sound. Facilities, systems, utilities, and networks approved for construction or awaiting approval for the Montauk Point Reservation (Camp Hero), facilities in the area of Camp Hero approved for construction or awaiting approval to support Camp Hero, units to provide support to Camp Hero, and diagrams displaying areas of coverage of Camp Hero facilities or systems described in this document are listed as follows (see document E-2):
- (a) Two (2) casemated 16-inch batteries of two (2) guns each (Batteries 112 and 113) and one (1) shielded 6-inch battery of two (2) guns (Battery 216) at Camp Hero. The guns to be installed in Batteries 112 and 113 of the Camp were Navy MKIIM1 16-inch types with M4 mounts. The guns to be installed in Battery 216 were M1903A2 6-inch types with M1 mounts.
- (b) Internal ammunition storage magazines for 400 rounds of 16-inch ammunition and 400 powder charges in Batteries 112 and 113 of Camp Hero. An interior ammunition storage magazine in Battery 216 of Camp Hero of unknown capacity.
- (c) Five (5) fire control and observation structures (and required equipment) at Camp Hero to support Batteries 112, 113, and 216 of the camp, which also supported external Batteries 111 and 114 at Wilderness Point and Watch Hill. The fire control and observation stations consisted of two (2) cottage type structures, two (2) manhole type structures, and one (1) tower type structure.
- (d) Six (6) additional proposed fire control station sites (and equipment) outside of Camp Hero, but in the vicinity, were also scheduled for construction to support the camp's Batteries 112, 113 and 216, and external supported Batteries 111 and 114. Stations were to be built in Ditch Plains, Shagwong, Amagansett, Hither Hills (Hill 100), and a station was to be built in Easthampton.
- (e) Thirty-Seven millimeter (37mm) antiaircraft automatic weapons sections of Two (2) guns each at Camp Hero, Ditch Plain (Windmill), Culloden Point, and Shagwong. The place of storage of the 37mm ammunition for these positions was to be at an unspecified location at Camp Hero. The 37mm gun position at Camp Hero was to be located in the fire control and observation tower (behind the lighthouse) on the roof.

- (f) .50 caliber antiaircraft automatic weapon platoons of four (4) guns each at Batteries 112, 113, and 216 of Camp Hero and an additional .50 caliber platoon at one of the camp's fire control and observation cottages. The .50 caliber cottage gun platoon position was to be located on the roof of one the fire control cottages, on the knoll 200-feet south of the lighthouse overlooking the ocean, with the command post for Antiaircraft Machine Gun Battery #4 positioned in the lower level of this cottage. The .50 caliber gun platoons for batteries 112, 113, and 216 (Batteries 1, 2, and 3, respectively) were shown to be located directly at the battery sites. The place of storage of the .50 caliber ammunition for these batteries was to be at the camp at an unspecified location.
- (g) Chemical Warfare collective protective systems (air filtration) at batteries 112, 113, and 216 of Camp Hero.
- (h) Two (2) portable searchlights with 35-foot towers at Camp Hero, two searchlights at Hither Hills, and two searchlights at Shaqwong.
- (i) Two (2) plotting-switchboard rooms (structures) for Batteries 112 and 113 at Camp Hero.
- (j) Several diagrams showing the firing fans and the maximum range of the guns at the Camp Hero batteries and showing the location of elements, cable routings, and searchlights of the Harbor Defenses of Long Island Sound to include Camp Hero.
- (5) A War Department Adjutant Generals Office memorandum, dated 10 August 1942, states that the Secretary of War has designated Battery 113 at Montauk Point "Battery Dunn" in honor of the late Colonel John M. Dunn (see document F-3).
- (6) A War Department Office of the Chief of Ordnance memorandum, dated 9 October 1942, cites the need to make immediate shipment of the two 16-inch guns for Battery 113 (Dunn) of Montauk point, Long Island, New York. The immediate shipment is required to relieve storage conditions at the Watervaliet Arsenal (see document F-4).
- (7) A War Department Office of the Chief of Engineers table, circa 1943, cites the delivery of armament and completion of emplacement dates for 6-inch batteries. The 6-inch gun battery (Battery 216) of Montauk Point was completed in October 1942 and the armament for this battery was delivered in January 1943 (see document F-6).

- (8) A War Department Office of the Chief of Engineers table, circa 1943, cites the delivery of armament and completion of emplacement dates for 16-inch batteries. The first listed 16-inch gun battery (Battery 113) of Montauk Point was completed in March 1943 and the armament for this battery was delivered in January 1943. The second listed 16-inch gun battery (Battery 112) of Montauk Point was completed in May 1943 and the armament for this battery was delivered in August 1943 (see document F-7).
- (9) A War Department Office of the Chief of Engineers memorandum (with attachments), dated 4 May 1943, displays the elaborate obscurement (camouflage) projects approved for and completed at Camp Hero, Long Island, New York, to disguise the batteries, battery support structures, and contonement areas from aerial observation (F-8).
- (10) A War Department Adjutant General's Office memorandum endorsement, dated 14 September 1943, states that no fixed antiaircraft armament was available or under procurement for the Fort Pond-Camp Hero area. The antiaircraft defense of this area was to be provided by mobile or semi-mobile antiaircraft units under the control of the Commanding General, Eastern Defense Command (see document F-9).
- (11) A War Department Adjutant General's Office supplemental report, dated 7 March 1945, updates harbor defense battery and battery support requirements for the Harbor Defenses of Long Island Sound as specified in the previous 1941 modernization program document. It also confirms the construction of facilities, systems, utilities, and networks that were awaiting approval for the Montauk Point Reservation (Camp Hero) in the original document. Changes to the original document, additions to the original document, and confirmation of facility construction that was pending approval in the original document are as follows (see document E-3):
- (a) The six (6) proposed fire control (FC) station sites outside of Camp Hero, but in the vicinity, were approved to support the camp's Batteries 112, 113 (Dunn) and 216, and external supported Batteries 111 and 114. The government procured two (2) parcels of land in Ditch Plains for FC stations, one parcel in Shagwong for a FC station, one parcel in Amagansett for a FC station, one parcel in Hither Hills for a FC station, and one parcel in Easthampton for a FC station.
- (b) The 37mm antiaircraft automatic weapons positions of two (2) guns each at Camp Hero, Ditch Plain, Culloden Point, and Shagwong were changed to 40mm gun positions of two (2) guns each at those locations. There were two (2) 40mm

gun positions of two (2) guns each displayed at Camp Hero; the other locations had one (1) position of two (2) guns each displayed.

- (c) The presence of SCR-296 radar systems at Ditch Plains, Prospect Hill of Camp Hero, and a second system at Camp Hero. An additional SCR-582 system was also displayed to be present at Camp Hero.
- (d) A battle allowance of 200 16-inch 2,240-lb projectiles and war reserve allowance of 300 16-inch 2,240-lb projectiles for Batteries 112 and 113 (Dunn) of Camp Hero. A battle allowance of 200 6-inch 90-lb HE (high explosive) rounds and 300 6-inch 105-lb AP (armor piercing) rounds and war reserve allowance of 300 6-inch 90-lb HE (high explosive) rounds and 400 6-inch 105-lb AP (armor piercing) rounds for Battery 216 of Camp Hero.
- (12) A War Department Office of the Chief of Engineers report, circa 1945, contains documents and maps which display and explain all of the completed battery related facility and utilities projects performed at Camp Hero. Of particular interest are the plans for Batteries 112, 113 (Dunn), and 216 (to include central traverse magazines, powder rooms, and firing platforms), camp fire control stations, camp plotting and switchboard structures, and camp radar installations (see document E-4).
- (13) A book written about the land and people of the South Fork of Long Island, New York, unknown date, states that the WWII era guns of Camp Hero were fired several times during wartime drills. The concussion of the guns firing rattled windows many miles away. It also states that these guns were never used in battle (see document F-16).
- (14) A newspaper article dated 6 February 1949, states that the process of dismantling the 6-inch and 16-inch guns of Montauk was almost complete (see document H-9).
- (15) Department of the Army General Orders No. 1, dated 3 January 1950, states that Camp Hero, Montauk Point, Long Island, New York, a sub-installation of Fort H.G. Wright, is excess to the needs of the Department of the Army effective 31 December 1949 (see document F-10).
- (16) A First U.S. Army Historical Data Card, circa 1961, displays that Camp Hero was designated a sub-installation of Fort Totten, New York, effective 24 January 1951 (see document F-12).

- (17) An historical report written by the Historical Officer of the $773^{\rm rd}$ Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 January through 31 January 1951, stated the following (see document E-5):
- (a) The 773rd AC&W remained stationed at Camp Hero, Montauk, New York. This was apparently attributed to the incomplete construction of the Air Force procured portion of Camp Hero, later to be called the Montauk Air Force Station.
- (b) An officer of the 69th Antiaircraft (AA) Battery of Fort Totten, Queens, New York visited the squadron to arrange policy and billeting for the AA training battery to be located in the squadron area. A permanent cadre was to be quartered at Camp Hero and continuous training was to be conducted for Regular Army AA personnel. Buildings unused by the 773rd AC&W was to be made available to the 69th AA Battery and they were to begin their training when battery equipment arrived at Montauk.
- (18) A newspaper article, dated 8 February 1951, stated that 120 mm guns were temporarily shifted from their Fort Totten installation base to Camp Hero to give crews a month's training in firing live ammunition (see document H-10).
- (19) An historical report written by the Historical Officer of the $773^{\rm rd}$ Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 February through 28 February 1951, stated the following (see document E-6):
- (a) The first units of the 69th AA Battalion, Fort Totten, New York, arrived during the first week of February and practice firing started as soon as the 90mm AA guns had been positioned. Although weather had hampered their operation, all batteries of the battalion were able to fire the required number of practice rounds by the 23rd of the month. Facilities were not available to house the entire battalion, so two batteries at a time bivouacked at Camp Hero, fired the required rounds and then returned to Fort Totten, making way for two more batteries. Tow target planes from Otis Air Force Base and Naval Air Station Floyd Bennett were utilized for firing problems for the 90's and radio controlled "drones" were used as targets for the multiple .50 caliber machine guns.
- (b) The 773rd's squadron area was officially an Army area. It would be completely taken over by the Army as soon as the squadron moved to its new site, still under construction. At that time there was no indication of any Air Force operational

association with the 69th AA Battalion. The site that was now occupied by the 773rd would in the future be used as an Army training area only. The only Army personnel remaining at Camp Hero when battalion training was not scheduled was strictly a caretaker force.

- (c) Colonel Kerr, the Commanding Officer of the Army battalions, indicated that batteries of 120mm AA guns would be arriving at Camp Hero late in March or early in April to conduct practice firing.
- (d) During the time the 69th AA was in operation, a direct line from squadron operations to the AA Command Post (CP) was utilized for close liaison. When batteries were ready to practice fire, the CP called operations for clearance. Scopes were checked to see if any aircraft might be entering the firing area, but in giving clearance the 773rd was not assuming responsibility for aircraft in the area. Operations also notified the Civil Aeronautics Administration, the ADCC and other stations when firing was being conducted.
- (e) The new squadron area was nearing completion, and, with the exception of the operations building and lack of mess equipment for the new mess hall, the majority of buildings would be ready in a few weeks time. A definite date for moving was not set, but everything indicated that the squadron would have to move into buildings in a piecemeal fashion when they were completed and the squadron would undoubtedly have to live in the new area but mess and operate in the Army area for some time. The present squadron area had already been turned over to the Army and they were most anxious to make use of the buildings occupied by the Air Force.
- (20) Several 1951 and 1952 newspaper articles address the closing of navigable waters in front of Camp Hero firing range locations due to antiaircraft artillery gun firing. 90 mm and 120 mm guns are the specified types of guns (in some of these articles) that were to be fired from Camp Hero (see documents H-11 through H-17).
- (21) An historical report written by a Staten Island, New York Historical Society, presented in the October through December 1957 issue, discusses antiaircraft artillery (AAA) training activity of AAA units stationed at Fort Wadsworth, Staten Island, New York. This article states that the 80th AAA Group was charged with supervising training within the 52nd Brigade (Fort Totten, New York), and one of the group's first major tasks was to chronograph all the brigade's guns, in order to standardize the muzzle velocities of the guns in each of the

batteries. Training at the Montauk Firing Range was conducted throughout the summer (see document H-22).

- (22) An historical report written by the Historical Officer of the $773^{\rm rd}$ Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 March through 31 March 1951, stated the following (see document E-7):
- (a) On March $13^{\rm th}$, several officers conducted an acceptance inspection of the new squadron area.
- (b) It was expected that the $69^{\rm th}$ AA Battalion would be active at Camp Hero towards the end of March. On March $30^{\rm th}$ units began arriving at Camp Hero, but as of the $31^{\rm st}$ of March, only one battery of 90mm AA guns had arrived and practice firing had not commenced.
- (c) 105 (one hundred five) Airmen fired familiarization rounds with .50 caliber machine guns (at an undisclosed location) as part of the ground training for the month.
- Officer of the 773rd Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 April through 30 April 1951, stated that one 69th AA Battalion 90mm battery was set up and practice firing by April 1st. A field phone was installed in the Squadron Operations Room connecting squadron operations with the AA Command Post (CP). Clearances were requested by the AA CP and granted by operations before firing began. Practice firing continued until two batteries had completed firing requisites. On completion, the battery returned to Fort Totten, leaving a caretaker force in the area (see document E-8).
- (24) An historical report written by the Historical Officer of the $773^{\rm rd}$ Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 May through 31 May 1951, stated the following (see document E-9):
- (a) On the 8th of May, General Minty accompanied by Colonel Murphy, 69th AAA Battalion, Fort Totten, New York, visited the squadron. General Minty and Colonel Murphy inspected squadron operations briefly and the Colonel was given a short briefing on operational procedures. Following the visit to operations, the visitors observed practice firing by a battery of 90mm AAA, the 41st AAA battalion, Fort Totten, NY.

- (b) Units of the $41^{\rm st}$ AAA Battalion arrived at Camp Hero from Fort Dix on the $4^{\rm th}$ of May and set up batteries of 90mm guns for the purpose of practice firing. Two batteries of the battalion arrived the week of the $4^{\rm th}$ and two more batteries the following week. During their stay, strength maintained by the battalion was of approximately 300 men. When firing requisites had been met, the batteries received orders to proceed to a new duty station, Fort Hancock, New Jersey.
- (c) On the 23rd of May, the 536th AAA battalion arrived from Fort Totten. The mission for the batteries of this battalion was practice firing of 120mm AAA, and it was anticipated that the firing requisites would not be completed until early in June. As of the 31st of May, approximately 500 men were stationed at Camp Hero and a total of approximately 750 men were expected to participate in the firing exercise. Firing activities were coordinated with squadron operations and a field phone connecting Operations with the AA Command Post was installed so that warning could be given of any aircraft entering the firing area for the AAA. Squadron operations were notified prior to firing and when guns were secured. When firing was completed the units of the battalion would return to Fort Totten.
- (d) The move to the new squadron area started on May $15^{\rm th}$ and the official address of the squadron was now Montauk, not Camp Hero, although operations and communications were still operating in the Camp Hero Area.
- Officer of the $773^{\rm rd}$ Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 June through 30 June 1951, stated that the units of the $536^{\rm th}$ AAA Battalion completed their firing requisites in the first week of June and personnel returned to Fort Totten with the battery of 120mm AA guns which had been practice fired during this training period. At the time of departure for Fort Totten, the Army indicated that there would be no further firing at Camp Hero until the second week of July, when they anticipate a return to the practice range with a full battalion of 120mm guns (see document E-10).
- (26) An historical report written by the Historical Officer of the 773rd Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 September through 30 September 1951, stated the following (see document E-11):
- (a) The $703^{\rm rd}$ AAA Battalion, which arrived at Camp Hero in August for practice firing, departed on the $19^{\rm th}$ of September, and on the $20^{\rm th}$ of September units of the $41^{\rm st}$ AAA

Battalion arrived at the training and began setting up for their firing period. At the end of September, this battalion was still in the process of conducting firing problems.

- (b) During the month of September, targets for qualification of the .45 automatic pistol were set up and utilized and qualification firing of the .30 caliber carbine continued. This was part of the Air Force squadron-training program.
- (27) An historical report written by the Historical Officer of the 773rd Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 October through 31 October 1951, stated the following (see document E-12):
- (a) The $41^{\rm st}$ AAA Battalion completed their firing requisites during the past month and was replaced at Camp Hero by units of the 521st AAA Battalion.
- (b) Firing by the $521^{\rm st}$ AAA Battalion was conducted for the first two weeks of October, and upon completion, the battalion returned to Fort Totten and was replaced by the $715^{\rm th}$ AAA Battalion.
- (c) The $715^{\rm th}$ AAA Battalion set up their firing line and went into operation on the $25^{\rm th}$ of October, and at the end of the month they were still practice firing at Camp Hero.
- (28) An historical report written by the Historical Officer of the $773^{\rm rd}$ Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 November through 30 November 1951, stated that the $715^{\rm th}$ AAA Battalion, who arrived in October, departed Camp Hero on November $9^{\rm th}$. They were replaced by the $245^{\rm th}$ AAA Battalion on November $12^{\rm th}$, who departed on the $29^{\rm th}$ of November (see document E-13).
- (29) An historical report written by the Historical Officer of the $773^{\rm rd}$ Aircraft Control and Warning Squadron (AC&W), Camp Hero, Montauk, New York, covering the period of 1 December through 31 December 1951, stated that the 41st AAA Battalion arrived at Camp Hero on December 1st. They remained until the $11^{\rm th}$, and during their period of activity fired daily employing both towed targets and Radio Controlled Aircraft Targets (RCAT). Following their departure, their was no additional AAA activity at Camp Hero (see document E-14).

- (30) A newspaper article, dated 8 December 1955, stated that a premature explosion of a 90mm shell at Camp Hero caused the death of a soldier and the injury of three other soldiers (see document H-19).
- (31) A newspaper article, dated 23 May 1957, discusses military equipment demonstrated during Armed Forces Day activities at Camp Hero. Army equipment demonstrated was a 90mm antiaircraft gun (controlled by an M-33 radar set), a quad .50 caliber machine gun, and a drone type airplane used as a target for antiaircraft guns (see document H-21).
- (32) A group of historical photographs, circa 1957, shows .50 caliber and 3.5'' rocket firing practice at Camp Hero. Also shown is an old fire control station on a bluff overlooking the ocean (see document K-2).
- (33) Department of the Army General Orders No. 1, dated 3 January 1958, state that Camp Hero, New York, a sub-installation of Fort Totten, New York, is placed in an inactive status effective 31 December 1957. This signified the end of antiaircraft artillery unit firing at Camp Hero (see document F-11).
- (34) An historical report released by Headquarters, First U.S. Army, Governors Island, New York, dated 14 January 1958, describes the history of installations that were within "Long Island's Eastern Shield" of defenses, to include Camp Hero. This document discusses the Coastal Defense activities of Camp Hero from 1942 to 1947, to include the periodic booming of the guns during target practice and the camouflaging of Camp Hero to make it appear like a fishing village from the air and sea. It also discusses the return of heavy guns to the post from 1951 until 1957, the period in which Camp Hero was a sub-installation of the Army Antiaircraft Artillery Command (see document E-15).
- (35) An historical report written by the Historical Officer of the 773rd Aircraft Control and Warning Squadron (ACWRON), Camp Hero, Montauk, New York, for the period ending 31 March 1958, provided a list of weapons maintained by the Air Police Section. The section maintained 15 (fifteen) .45 caliber pistols, 26 (twenty six) .30 caliber M1 rifles, 48 (forty eight) .30 caliber carbines, five (5) .45 caliber submachine guns, and seven (7) .30 caliber Browning automatic rifles. The section also maintained the ammunition associated with the aforementioned weapons (see document E-16).
- (36) An Army Corps of Engineers disposal memorandum, dated 20 October 1960, states that in 1951 Camp Hero was withdrawn from an excess status and placed under the jurisdiction

of the Commanding General, 1^{st} United States Army, for use as a firing range and field exercise area for AAA units in the vicinity of New York (see document G-6).

- (37) An historical report of the 773rd Radar Squadron (SAGE), Montauk, New York, for the period ending 31 December 1961, stated that all squadron personnel were scheduled for and completed marksmanship training and qualified with the appropriate weapon during November and December 1961. It is presumed that this qualification occurred somewhere on Camp Hero or the Air Force portion of Camp Hero (see document E-17).
- (38) A newspaper article, dated 26 July 1962, discusses old and new ordnance items discovered by an Air Force Explosive Ordnance Disposal Unit on the beach near Camp Hero during a search. Cannonballs, artillery projectiles and projectile fuzes, practice rockets, an intact hand grenade, 70 (seventy) rounds of assorted ammunition, and several unidentified objects were found and brought to the West Hampton Air Base (Suffolk County Air Force Base) for destruction (see document H-26).
- (39) An historical report of the 773rd Radar Squadron (SAGE), Montauk, New York, for the period ending 31 December 1963, stated that the Unit Supply Office was moved from the old gun bunker to the former TROPO building. The supply office was located in the old gun bunker for more than five years (see document E-18).
- LORAN-C Map for Block Island Sound, dated 18 September 1993, displays three areas in the ocean south and southwest of the former Camp Hero shoreline which displayed an unexploded ordnance hazard (see reference B-142). These areas are displayed on Plate 5. An attempt to obtain the ordnance incident information which prompted the placement of these markings on the map proved futile, they could not be found, only the documents which provided the map posting coordinates of unidentified ordnance locations were recovered. These areas may be associated with an ordnance dumping ground area, mentioned in a newspaper article, said to be present off of Montauk Point (see document H-41). They may have also been associated with Camp Hero firing activities.
- (41) A Draft U.S. Army Program Manager for Chemical Demilitarization Survey and Analysis Report, dated December 1996, describes a troop chemical defense exercise, which occurred at Camp Hero in 1945, in which diluted chemical agents from a Chemical Agent Identification Set was utilized. On 22 February 1945, Battery "A" Coast Artillery Battalion (Mustard-HD) held a "Gas Identification Exercise". During this exercise, men were

sent into clouds of mustard, phosgene, and lewisite. On this day weather conditions were less than favorable (inversion) and the clouds hung close to the ground; thus, a high number of men experienced irritations on their faces and arms. Because the inversion conditions were the cause of the men's irritations, it was stated that the exercises would only be held on favorable weather days (see document E-20).

c. Interviews with Site Related Personnel

- (1) Several persons were interviewed that were able to provide general site and OE related information pertaining to Camp Hero and the Montauk Air Force Station.
- Mr. Dess is the State Park Manager for six (6) parks in the Montauk complex of parks, with the majority of the former Camp Hero lands being one of the parks under his control. worked in this managerial capacity for 7 years, having had exposure to the former Camp Hero throughout this period. to his appointment to this position he had visited the former Camp Hero in an unofficial capacity since the late 1970's. Throughout Mr. Dess's exposure to the former Camp Hero, he is aware of three incidents involving the discovery of OE on the camp. A former employee, Donald Balcuns, was a maintenance worker for the state whose place of duty was in a former Camp Hero building, used by the state as a maintenance facility. On a windowsill of this facility Mr. Balcuns had on display six artillery shells (projectiles) and two cannon balls, presumably found on the camp, with two of the projectiles being intact. The type, condition, and type of fuzing of the intact projectiles was unknown, however, the diameter of the projectiles described fit in the 75mm or 90mm category. The present location of these ordnance items is unknown, and the former employee (Donald Balcuns), although living in the Montauk Area, has suffered a stroke and would be incapable of being interviewed. A second incident involved the discovery of a projectile by a fisherman on the south side of the camp, on a trail by the bluffs. occurred around 1992 or 1993. A third incident involved the discovery of a projectile, around three years ago, by a fisherman on the south shore of the former camp. Mr. Dess is not aware of the presence of any formal firing range evidence on the former camp, however, a circular area in the southwestern portion of the camp may have been associated with firing (see document I-1).
- (3) Mr. Schneidmuller is a maintenance worker for the State Park Service. He has worked in this capacity since 1978, having exposure to the former Camp Hero throughout this period. From 1993 to 1995, Mr. Schneidmuller actually worked in a former Camp Hero building, used as a state maintenance building. Prior to Mr. Schneidmuller's employment with the state he had visited

the former Camp Hero in an unofficial capacity since 1969. Throughout Mr. Schneidmuller's exposure to the former Camp Hero, he is aware of a few instances of ordnance discoveries. working in the Camp Hero maintenance building during the aforementioned period, a former employee, Donald Balcuns, had ordnance items on display on a shelf. He recalled that these items were large, solid steel projectiles of unknown exact dimensions or description. The present location of these ordnance items and the place in which they were discovered is unknown, and the former employee is in extremely bad health and would not be capable of responding to questions. Mr. Schneidmuller stated that he personally discovered a large projectile six years ago along the shoreline at extreme low tide. This discovery was slightly west of the southwestern boundary of the former Camp Hero he believed. The item was left in place and was not reported or removed. Mr. Schneidmuller stated that ordnance debris is occasionally found weathering out of the bluff west of the sewer outflow pipe at the southern end of the former camp. In fact, he had in his possession one of these items of debris, which was an expended .50 caliber shell casing of 1942 vintage (see document I-2).

- (4) Mr. Silipo began is the Administrative Manager for the State Park Service at Montauk. He has worked in this capacity since 1989, having exposure to the former Camp Hero throughout this period. Prior to Mr. Silipo's employment with the state he had visited the former Camp Hero in an unofficial capacity since 1960. From 1960 to 1989 his sister's husband was the State Park Manager at Montauk. He would visit his sister, and during the visits, explore the former Camp Hero. He explored a considerable portion of the former camp, never discovering any actual ordnance and explosives items. On one occasion, however, Coast Guard and Air Force dependent children showed him an area near the east gate of the former camp which contained expended small arms casings, empty ammo cans, and some general rubbish such as ration debris (see document I-3).
- (5) Mr. Ganga was an Ordnance Ammunition Officer (Lieutenant) stationed at Fort Totten, New York, from December 1955 to November 1957. Fort Totten was the major command for subordinate antiaircraft artillery units in the New York area. Mr. Ganga was responsible for inspecting all of the subordinate unit ammunition storage sites, to include one at Camp Hero, to determine the condition of the ammunition stored. Mr. Ganga stated that 90mm mobile guns were fired from Camp Hero. 90mm ammunition was stored in the old 6-Inch gun battery at Camp Hero. 90mm gunfire occurred from Camp Hero, the guns fired at drones from bluffs facing the Atlantic. Mr. Ganga stated that any unserviceable ammunition from Camp Hero was sent to Raritan Arsenal in New Jersey for disposal. Mr. Ganga is not aware of

the conduct of any chemical defense training at Camp Hero. Mr. Ganga could recall one ordnance related accident occurring at Camp Hero. In 1955, upon his arrival to Fort Totten, he was detailed to investigate a 90mm gun accident in which a soldier was killed at Camp Hero. A faulty feed mechanism caused the breech to open and a 90mm round to eject rearward following propellant ignition. The round struck a soldier killing him. In conclusion, Mr. Ganga stated that a rifle and pistol range was present at Camp Hero, somewhere inland, which contained makeshift targets. He couldn't describe the exact location (see document I-4).

- Mr. Kelsall is a lifetime Montauk area resident. Mr. Kelsall stated that in the early 1940's, while in school, he witnessed trains passing, which were destined for Montauk, from the schoolhouse windows. These trains were bearing armored personnel carriers, ambulances, and half-tracks. Mr. Kelsall said that train driven Mack trucks originating from Westbury, New York, also passed frequently delivering concrete to Camp Hero for the gun batteries. Mr. Kelsall often heard firing occurring from the Montauk area in the early 1940's. The firing would cause the windows to rattle. Mr. Kelsall is not sure which branch of service was performing this firing. Mr. Kelsall stated that antiaircraft artillery units would convoy through the area to Camp Hero in the late 1940's to 1950's. The convoys would be towing three or four 90mm guns. Mr. Kelsall stated that another local resident, Ben Tyler, discovered a target drone in the woods at Hither Hills, which is west of Camp Hero (see document I-5).
- Mr. Campbell was a Cable Splicer for the New York Telephone Company from 1955 to 1980. His place of duty was Camp Hero, primarily servicing the complex communications system for the Air Force portion of Camp Hero known as the Montauk Air Force Station. Mr. Campbell stated that Army ordnance firing took place at Camp Hero during the first few years of his employment there, from the south side of the camp facing the ocean. Mr. Campbell stated that smaller projectiles (believed to be .50 cal and 20mm to 40mm) were fired at a ground launched drone. A barge target was also towed in the ocean in which small and large projectiles were fired at. There were three permanent firing positions along the southern bluff of the camp in which the Army fired from. Mr. Campbell serviced the communication lines to The drones were launched from a field on the southwestern portion of the camp. Mr. Campbell stated that small arms firing also took place at a crude small arms range on the south side of the NCO Club. Mr. Campbell stated that station trash from the base was thrown over the bluffs on the south side into the ocean (see document I-6).

- (8) Mr. Disunno is a lifetime Montauk area resident who has lived in the vicinity of the former Camp Hero since 1924. Mr. Disunno stated that in 1942 he was employed by a concrete contractor who was pouring the concrete for two (2) of the gun batteries of Camp Hero. Mr. Disunno assisted in the construction of two (2) 16-Inch gun batteries. In August of 1943, Mr. Disunno entered the Army where he served in an antiaircraft artillery battalion until his release from service in December of 1945. Mr. Disunno returned to the Montauk area following his period of service and has lived there since. Mr. Dissunno remembers the passing of convoys hauling guns through the area to Camp Hero in the late 1940's through the 1950's. He does not recall the type of guns (see document I-7).
- Mr. Cangiolosi a lifetime Montauk area resident who has lived in the vicinity (in the same house) of the former Camp Hero for 73 years. Mr. Cangiolosi stated that in 1942 he was employed by the Corps of Engineers to assist in the camouflaging of the gun emplacements (batteries) of Camp Hero. Mr. Cangiolosi assisted for almost a year in the placement of natural vegetation, as part of a group of thirty men, on top of the batteries and fire control stations of Camp Hero. Native vegetation planted included roses, bayberry, red maple, and beach In April of 1943, Mr. Cangiolosi entered the Navy where he served until his release from service in 1945. Mr. Cangiolosi returned to the Montauk area following his period of service and has lived there since. Mr. Cangiolosi stated that during World War II approximately 15,000 men of all services were stationed in the Montauk area. Mr. Cangiolosi remembers the passing of convoys hauling artillery pieces through the area to Camp Hero in the 1940's and 1950's; they would pass through around every two months. He does not know the type(s) of artillery pieces hauled. He also recalls the closure of the waterway in front of the south side of Camp Hero for firing practice, and a boat towing targets for the firing practice. Mr. Cangiolosi could also recall hearing the occasional firing of large guns prior to entering service in 1943 (see document I-8).
- Police Department since 1970. This agency provides police services to Montauk, and has a sub-post at that location. Shortly after joining the department, he recalls the discovery of a projectile, 2 feet long and around 6 inches in diameter, east of Ditch Planes on the shore. This item was discovered by fisherman, and apparently had a shipping plug in the nose of the item. Since then, he believes around 10-12 ordnance discoveries have been made in the Camp Hero area. He stated that he would search the archives and fax the reports if found (nothing received prior to completion of report). LT. Claflin is not aware of the discovery of any chemical warfare related materials

on or associated with Camp Hero. LT. Claflin is not aware of any accidents resulting from the discovery of remaining OE on or removed from Camp Hero land (see document I-9).

- Mr. Robert Tuma is a lifetime Montauk resident. (11)departed the Montauk area from 1942 to 1945 to serve during World War II as a fighter pilot in the Navy. Upon his return from the war he returned to Montauk and became a commercial fisherman. Mr. Tuma can recall Army Anti-Aircraft units firing from Camp Hero, from the early 1950's until the middle to latter 1950's. Mr. Tuma stated that the waterway from the Montauk Lighthouse to Caswell Point would be restricted from watercraft usage during that time, and the restricted area extended to 12 miles offshore. Large caliber guns would fire at plane towed targets from Camp Hero on weekdays. Mr. Tuma could recall observing and hearing, from outside the restricted areas, the detonation of these large projectiles 10 to 12 miles offshore. Mr. Tuma could recall only one ordnance associated incident/accident occurring in the Montauk area. A local fisherman's son, Stan Nagle, was killed when trying to cut open a 3" projectile with a torch. incident occurred in the 1950's. The projectile was discovered at an unknown location in Montauk, possibly dredged from Montauk Mr. Tuma also stated that the fixed guns at Camp Hero, the 6-inch and 16-inch guns, were never fired to his knowledge (see document I-10).
- (12) Mr. Frank Tuma is a lifetime Montauk resident. Mr. Tuma assisted a private firm in the construction of the 16-inch batteries at Camp Hero when in High School. Around the 1942 time frame, Mr. Tuma recalls observing convoys entering Camp Hero. He believes that artillery pieces were present in the convoys. Mr. Tuma departed the Montauk area from 1942 to 1946 to serve during World War II as a communications navigation officer in the Navy. Upon his return from the war he returned to Montauk and has remained there since. Mr. Tuma could recall that the Atlantic in front of Camp Hero was restricted from 1948 or 1949 until sometime in the 1950's. This was attributed to the firing of artillery at Camp Hero (see document I-11).
- (13) Mr. Jacob served with the Air Force's 773rd Radar Squadron as the Computer Section Chief at Camp Hero, then known as the Montauk Air Force Station, from 1964 through 1973. Mr. Jacob stated that during his tour of duty no Army activity took place at Camp Hero. Mr. Jacob stated that a portion of the abandoned Army 16-inch Battery 212 was used for the storage of Air Force equipment and supplies. It was also used as a shelter for station personnel and local civilian residents during hurricanes. Mr. Jacob also stated that a gun point circle of the abandoned Army 6-inch battery 216 was used as a training area for fire fighting personnel. Mr. Jacob was aware of the presence of

an informal small arms range on Camp Hero, the only range present to his knowledge. A crude berm near the station power plant was used for weapons qualification. During Mr. Jacob's tour of duty at Camp Hero, he is not aware of the discovery of any items of OE or OE residue or of any accidents associated with the discovery of OE on or off base. He is also not aware of the conduct of any type of chemical defense training or the discovery of any chemical defense training materials (see document I-12).

- Mr. Beckwith is a lifetime Montauk resident who has lived in the area since 1925. He departed the Montauk area from 1942 to 1946 to serve during World War II in the Navy. Beckwith can recall Army Anti-Aircraft Artillery units towing guns to Camp Hero from the late 1940's to the middle to latter Mr. Beckwith stated that these units would have to tow the guns across the Shinnecock Bridge to get to Montauk. was a real problem because the bridge could not withstand the weight of the vehicles and heavy guns combined. The trucks would have to drive across the bridge without the guns attached, then winch the guns across. Mr. Beckwith stated that the ocean in front of Camp Hero was restricted due to firing activities in that area during that time frame. Targets would be towed behind boats, with one mile long lines separating the boats from the targets, for the guns to fire at (see document I-13).
- (15) Mr. Foley is a property owner of a portion of the former Camp Hero in which a radar tower was once present. He has owned the property since 1976, but has visited the Montauk Area since 1957. Mr., Foley has never discovered OE or OE debris on his property and has never heard of the discovery of OE on any part of Camp Hero or in the Montauk area (see document I-14).
- (16) Mr. DeSousa was an Air Force Air Policeman stationed with the 773rd Radar Squadron at the Air Force portion of Camp Hero, known as the Montauk Air Force Station, from 1956 through 1959. Mr. DeSousa stated that during his tour of duty at Montauk, Army Anti-Aircraft Artillery units would arrive on weekends and spend two weeks at Camp Hero. They would fire small caliber mobile guns at radio controlled planes. The rounds fired would not give off a loud report after detonating. However, a puff of smoke would be visible. The target planes would fly from west to east on the south side of Camp Hero over the ocean, with the guns positioned on the southern bluffs firing towards the south (also over the ocean). Mr. DeSousa stated that the Army did not have many permanent party personnel stationed at Camp There was only a limited staff present to support the units that would come to fire. Mr. DeSousa was aware of the presence of an informal small arms range on Camp Hero, the only range present inland to his knowledge. The southern berm of Battery Dunn (113) was used for qualification firing of .45

caliber pistols and .30 caliber carbines. Makeshift targets would be placed at this location with the battery berm as a backdrop to catch the bullets. During Mr. DeSousa's tour of duty at Camp Hero, he did not participate in, witness, or hear about the conduct of chemical defense training. Mr. DeSousa never discovered or heard about the discovery of OE, or of any incidents or accidents associated with the discovery of OE, throughout his tour of duty at Camp Hero. He stated that being an Air Policeman, he would have been the first to know of any such discoveries or incidents or accidents. Mr. DeSousa stated that all station trash was hauled to an off-base landfill off of Flamingo Road, with the exception of mess hall food waste. This went to a local pig farmer (see document I-15).

Mr. Repsher was stationed at the Air Force portion of the former Camp Hero, known as the Montauk Air Force Station, from 1964 to 1968. He was a Radar Technician assigned to the 773rd Radar Squadron. Throughout his period of service, Mr. Repsher investigated all Camp Hero property. This was a personal endeavor based on his extreme interest. During his personal search, he never discovered any live OE items. Mr. Repsher, during a search of the old hotel building (now removed) on the southeastern portion of the reservation, discovered army exercise debris to include small arms shell casings and canteens. Mr. Repsher's investigation of the abandoned army infirmary, he discovered beds, other furnishings, medical records, scalpels and other assorted medical utensils. He was perplexed why the Army failed to clear the building upon departure. It appeared that they left in a hurry. Mr. Repsher stated that he investigated the battery complexes during his tour of duty at Camp Hero. entered and explored three of them that were accessible at the time, never finding any evidence of OE. He mentioned that externally, the only difference that is noticeable at the battery sites, was the absence of a wooden fire control structure on Battery 216, and the concrete closure of the access doors of all the batteries. Mr. Repsher stated that his organization performed .30 caliber carbine qualification firing on the south side of a former battery, described to have been Battery Dunn (113). Makeshift targets were set up against the batteries earthen berm for qualification. No other form of qualification (i.e. grenade, projectile, etc.) occurred by station personnel during his tour of duty. No other ranges were established or used by station personnel during his tour of duty. Mr. Repsher recalled a training mission by Army Special Forces personnel at Camp Hero. Around 1966, Special Forces paratroopers dropped into the tennis court area one evening, presumably unannounced. He persuaded an Air Force Policeman to refrain from opening fire on They went into the woods for a week of training, after which they emerged and went into the NCO Club for a drink prior to departing. Mr. Repscher did not participate in or hear of the conduct of chemical defense training at the former Camp Hero (see document I-16).

- (18) Mr. Hill is an Army veteran who was stationed at Fort H. G. Wright on Fishers Island from 1940 to 1943. as a supply person at this installation, ordering all the supplies for his organization, the 242nd Coast Artillery Regiment. Mr. Hill stated that Fort H. G. Wright was the major command for all of the Harbor Defense Installations of Long Island Sound, to include Fort Michie on Great Gull Island, Fort Terry on Plum Island, and Camp Hero. Mr. Hill stated that the 11th Coastal Artillery Regiment (Regular Army) was the controlling organization at Fort H. G. Wright, and was later joined by the 242nd Connecticut National Guard Coast Artillery Regiment. Members of these organizations manned the individual Coastal Defense Batteries to include those at Camp Hero. Hill stated that he knew that 16-inch Gun Batteries were located and functioning at Fort Terry, Fort Michie, and Camp Hero. A 16inch gun battery was also built at Fort H. G. Wright, and the guns were delivered, however, the guns were never installed. antiaircraft battery of 3-inch guns and 155mm guns was present at Fort H. G. Wright, which frequently practice fired the guns, utilizing high explosive rounds. Mr. Hill stated that battery guns at all the command installations were required to fire the guns in practice at regular intervals. The guns were never fired in hostility to his knowledge. The 16-inch guns were fired less frequently in practice due to the damage they caused to residence windows and complaints. Mr. Hill stated, in example, that at Fort Michie the 16-inch guns, utilizing unknown types of rounds, practice fired every three to four months. The frequency at Camp Hero is unknown, but believed to be similar. Mr. Hill stated that he is not aware of the order or receipt of Chemical Agent Training kits during his period of service at Fort H. G. Wright. The only chemical defense training conducted at Fort H. G. Wright, to his knowledge, consisted of mask confidence exercises. These were conducted in a gas chamber utilizing irritant agents. He is uncertain if these exercises were conducted at Camp Hero. He is additionally unaware of any ordnance related incidents or accidents associated with any of the command's installations and believes that any unserviceable or excess ammunition at any of Fort H. G. Wright subinstallations were shipped off the installations for disposal or reuse (see document I-17).
- (19) Mr. Powers is a State Park Police Officer for the New York State Parks Office, and has worked in this capacity for 11 years. He was assigned to the former Camp Hero from 1992 until 1999. Around 1996 or 1997, he responded to an incident involving the discovery of an ordnance item on the southern oceanfront area of the former camp, an item that had been discovered by a fisherman. The area of the discovery was an area

west of the drainage effluent pipe, in the area identified as the Ordnance Destruction Range of this report (Area H). The item was described as being eight (8) to twelve (12) inches long and three (3) to four (4) inches in diameter with three (3) fins. A further description provided described the general features of a 3.5-inch rocket. Mr. Powers stated that the Suffolk County Police Bomb Squad responded to this incident. Members of that organization, at the time of response, stated that the item was live and removed it. Mr. Powers did not personally respond to any other ordnance related incidents or did not personally discover any ordnance items at Camp Hero during his period of assignment there. However, Mr. Powers stated that he has heard that a lot of items have washed up on the shore of the former camp (see document I-18).

- SGT Peyton is a member of the Suffolk County Police (20)Department Emergency Services Division Arson/Explosives Unit. has been a member of this unit for eighteen (18) years, with a total service time in the Suffolk County Police Department of thirty-six (36) years. His organization is normally notified of all ordnance and explosive incidents that occur in Suffolk County. SGT Peyton stated that he is aware of a former military usage at Camp Hero, and is aware of the discovery of ordnance items in that area. To the best of his recollection, though, all items discovered were devoid of energetic material. He stated that he would have his records clerk check all ordnance incidents that his unit responded to on the eastern end of Long Island and send this information. SGT Peyton stated that the majority of their military related responses in Suffolk County are to the former Camp Upton military area in Yaphank, New York. recovered hand grenades, mortars, land mines, and projectiles dating back to as far as the Civil War in this area. Some of the items discovered were Japanese and British. SGT Peyton stated a portion of the former Camp Upton lands, in which ordnance items have been discovered, are under the control of the Brookhaven National Laboratories, and another portion of land where items were discovered are outside of the laboratories' current boundaries.
- (21) Mr. Cox is an Army veteran who served at Fort Hancock, New Jersey, as a jeep mechanic for a 90mm AAA battalion from 1957 to 1958. Around November 1957, Mr. Cox was required to travel with his battalion to Camp Hero, New York, where they conducted firing practice for a few weeks. The battalion fired 90mm guns from points on the southern bluff of Camp Hero southward towards the ocean, at targets towed by planes. The types of rounds fired are unknown. Quad .50 caliber machine guns and 3.5-inch rockets were also fired for familiarization towards the ocean. Mr. Cox stated that firing of any weapon would not have been directed inland. Mr. Cox stated that while at Camp

Hero, all personnel stayed in old barracks buildings. Mr. Cox stated that no form of chemical defense training occurred at Camp Hero during the battalion's short training exercise there. Mr. Cox provided pictures of the aforementioned training exercise, which illustrated some of the firing conducted at Camp hero and a fire control structure of Camp Hero (see documents I-20 and K-1).

5. SITE ELIGIBILITY

a. Confirmed Formerly Used Defense Site

- Former land usage by the Departments of the Army and Air Force is substantiated by numerous historical maps, documents, interview information, and physical evidence which suggests an approximate 468.72 acres of an OE associated land usage by both services and an additional 756,536.66 acres of ocean and near shore usage by the Army for gun firing during the period of operation of Camp Hero. The Army and Air Force also acquired numerous additional easements, leases, and permits, however, due to a usage not bearing an OE significance, they have been omitted from reporting. Camp Hero was utilized by the Army as a coastal defense installation during WWII, whose 6-inch and 16-inch guns fired into the ocean periodically for practice (see documents E-15, F-16, I-5, I-8, I-17, and Plates 4, 5, and 6). Army Antiaircraft Artillery unit's fired .50 caliber, 90mm, and 120mm guns and 3.5-inch rockets from the southern bluffs of Camp Hero into the ocean during 1950's practice firing exercises (see documents E-5 through E-14, H-10 through H-17, H-19 through H-22, I-3 through I-8, I-10, I-13, I-15, K-1, and Plates 3, 4, and 6). Air Force soldiers manned a radar site at Camp Hero from 1950 until 1982, firing small arms weapons for qualification at Camp Hero during that period (see documents E-11, E-16, E-17, I-12, I-15, I-16, Plates 3 and 4, and Photo J-16).
- The FDE for this site, however, qualified only 468.49 acres of land as being FUDS eligible (see document E-1). This was apparently based on an oversight which incorrectly listed the fee acreage, which was actually 468.69 acres (see document L-4), and took into consideration only military owned (fee) lands, not an additional .03 acre use agreement area, used as a fire control station and 37mm AAA gun position (see documents E-2, E-3 and G-1), an additional 756,491.75 acre ocean firing area, in which projectiles were fired, and an 44.88 acre oceanfront area, where ordnance items have been discovered as a result of ordnance firing and destruction activity at Camp hero (see documents E-5 through E-14, E-15, F-16, H-10 through H-17, H-19 through H-22, I-3 through I-10, I-13, I-15, I-17, K-1, and Plates 2 through 6). Total site acreage actually consisted of approximately 757,005.35 acres. The FDE should be amended to reflect total former site acreage. Although Area L is FUDS

qualified, it will not be added to the FUDS database in accordance with Headquarters, U.S. Army Corps of Engineers Military Projects Office (CEMP-RF) memorandum, dated 15 March 1994 (see document F-18).

b. Potential Formerly Used Defense Sites

During the course of this investigation, historical documentation and interview information suggests the presence of six (6) potential Formerly Used Defense sites in the Suffolk County, New York, area.

- (1) Gardiners Point, an island northwest of Montauk Point, was used as an Army and Navy bombing target area from the 1930's to the 1970's. Bombs, to include the high explosive variety, have been discovered on the island, some of them destroyed by Navy Explosive Ordnance Disposal personnel (see documents H-6, H-8, and H-42). This location was listed as DERP-FUDS Site CO2NY0021 in the Formerly Used Defense Site Management Information System (FUDSMIS) database. This database suggested that no OE projects were recommended or assigned to this site.
- (2) Camp Upton was located in Yaphank, New York, and was a major Army maneuver and firing area for an unknown period of time. A portion of the former Camp Upton property was taken over by Brookhaven National Laboratories for nuclear research around 1947. The Army was still utilizing remaining portions of the former camp in 1956. A Suffolk County Police Department Emergency Services Division Arson/Explosives Unit Sergeant stated that the majority of their military related responses in Suffolk County are to the former Camp Upton military reservation. His unit has recovered hand grenades, mortars, land mines, and projectiles dating back to as far as the Civil War in this area. Some of the items discovered were Japanese and British (see documents H-7, H-20, and I-19). This location was listed as DERP-FUDS Site C02NY0597 in the FUDSMIS database. database suggested that no OE projects were recommended or assigned to this site.
- (3) A Fire Control Station was constructed along the shore in Ditch Plain, New York, to support the guns of Camp Hero during WWII. Historical documents reflect the placement of a 37mm (later replaced by a 40mm) AAA weapons section at this location (see documents E-2, E-3, and L-3). This location was listed as DERP-FUDS Site C02NY0603 in the FUDSMIS database. This database suggested that no OE projects were recommended or assigned to this site.

- (4) A Fire Control Station was constructed along the shore at Shagwong Point, New York, to support the guns of Camp Hero during WWII. Historical documents reflect the placement of a 37mm (later replaced by a 40mm) AAA weapons section at this location (see documents E-2 and E-3).
- (5) A Fire Control Station was constructed along the shore at Culloden Point, New York, to support the guns of Camp Hero during WWII. Historical documents reflect the placement of a 37mm (later replaced by a 40mm) AAA weapons section at this location (see documents E-2 and E-3).
- (6) A Fire Control Station was constructed along the shore in Hither Hills, New York, to support the guns of Camp Hero during WWII. Although no documents discovered suggested the presence of AAA guns at this facility, an interview source stated that a target drone was discovered in the woods at this location, possibly indicating the conduct of target practice there (see documents E-2, E-3, I-5, and L-6).

6. VISUAL SITE INSPECTION

a. General Procedures and Safety

- (1) During the period of 8 through 14 November 1999, members of the Assessment Team, Mr. Nick Iaiennaro and Mr. Thomas Knapp, visited the project portions of the former Camp Hero. The primary task of the team was to assess potential OE presence and usage of the site as a coastal defense installation. The site inspection was limited to non-intrusive methods; i.e. subsurface sampling was not authorized nor performed.
- (2) Real estate rights-of-entry were not obtained by the team due to the willingness of State representatives to allow the team to visit the property. Representatives were briefed on the non-intrusive nature of the inspection and the safety measures used by the inspection team.
- (3) A site safety plan was developed and utilized by the assessment team to assure safety from injury during the site inspection of the area (reference B-5). Prior to the inspection, a briefing was conducted which stressed that military EOD personnel should only handle OE.
- (4) Prior to the site visit, a thorough review of all available reports, historical documents, texts, and technical ordnance reference materials gathered during the historical records search was made to ensure awareness of potential ordnance types and associated hazards.

b. Area A: Fire Control Station/37mm AAA Station (Additional Lands)

- (1) This area contains a fire control tower and auxiliary power plant built by the Army to serve as a fire control station for the batteries of guns at Camp Hero and a couple of outlying gun batteries. The tower and auxiliary power plant are built on a .03 acre parcel of flat land on the east side of the Montauk Point Lighthouse. Target angles and projectile fall and correction data were fed from this location, during the coastal defense period of operation in the 1940's, to a separate plotting room on Camp Hero where fire was adjusted for accurate target acquisition purposes (see documents D-1, E-2, E-3, E-4, F-13, G-1, Photo J-1, and Plates 2, 4, and 7).
- (2) Historical documents reflect that the .03 acre parcel of land where this facility was built was located outside of the confines of the Camp Hero reservation, on lands gained through use agreement with the U.S. Coast Guard and Department of the Navy. Historical documents also reflect the placement of a 37mm (later changed to 40mm) automatic weapons section on the roof of the fire control tower in this area (see documents D-1, E-2, E-3, E-4, G-1, and L-5).
- (3) No historical data, interview information, or physical evidence could be found to indicate actual ordnance firing from this location or a remaining ordnance presence at this location.

c. Area B: Battery 216

- (1) This area, consisting of 2.90 acres, served as a coastal defense 6-inch gun battery from 1943 through 1947. It is situated on a sparsely vegetated parcel of land on the southern bluff area of the site, overlooking the Atlantic Ocean (see Plates 2 and 4).
- (2) Historical documents concerning this area indicate the following:
- (a) This battery was constructed as an underground self sufficient facility containing commercial and individual power supplies, a water supply system, powder and shell rooms, central traverse magazine, latrines, an oil fired forced hot water heating system, ventilation system, dehumidifying system, and gas defense system (see documents E-3 and E-4).
- (b) This battery was covered with earth and camouflaged with natural vegetation to prevent enemy observation (see documents F-8 and I-8).

- (c) This battery was completed in October 1942 and the armament for this battery was delivered in January 1943 (see document F-6). The guns installed in this battery were two shielded M1903A2 6-inch models with M1 mounts (see documents D-4 and E-2).
- (d) A .50 caliber antiaircraft automatic weapon platoon of 4 guns was positioned at this battery (see documents D-3 and E-2).
- (e) A battle allowance of 200 6-inch 90-lb HE (high explosive) rounds and 300 6-inch 105-lb AP (armor piercing) rounds and war reserve allowance of 300 6-inch 90-lb HE (high explosive) rounds and 400 6-inch 105-lb AP (armor piercing) rounds was prescribed for this battery (see documents D-1 and E-3).
- (f) This battery, along with the other Camp hero batteries, fired occasionally in practice (see documents F-16, E-15, I-5, I-8, and I-17).
- (g) The guns were removed from this battery in 1949 (see document H-9).
- (h) The internal bunker of this battery was used for the storage of AAA ammunition during AAA firing activities in the 1950's (see document I-4).
- (i) A gun circle of this battery was used for firefighting training in the 1950's (see document I-12).
- (j) This battery area was used as a observation post during a joint Naval Reserve and Navy SEAL training exercise in 1970 (see document H-29).
- (3) A thorough inspection of the exterior battery area and area surrounding the battery by the inspection team failed to reveal a remaining OE or OE debris presence. The inspection team was unable to inspect the interior of the battery due to the sealing with conrete of all possible access points due to unauthorized entry and vandalism. This area was visited and thoroughly investigated by a credible witness following the Army usage period when access to the battery was still possible. This individual failed to discover a remaining OE presence at that time (see document I-16 and Photos J-2 through J-6 and Plate 7).

d. Area C: AAA Firing Area

- (1) This area consists of approximately 5.80 acres of sparsely vegetated land located on the southern bluffs of the site overlooking the Atlantic Ocean. This area was utilized as an AAA firing area, consisting of three firing points, during AAA unit firing activities from 1951 to 1957 (see Plates 3 and 4).
- (2) Historical documents concerning this area indicate the following:
- (a) Three permanent firing positions were established in this area, with communication cables running to them (see document I-6).
- (b) Numerous AAA Battalions assigned to Fort Totten fired 90mm guns, 120mm guns, quad .50 caliber machine guns, and 3.5-inch rockets from this area. Tow target planes, radio controlled target airplanes (drones), and towed target boats, located in or over the Atlantic Ocean, were utilized to gauge firing accuracy of the firing conducted from this area. Restrictions to the waterways effected by area firing were posted to prevent mariner entry (see documents D-1, D-3, D-5, E-5 through E-14, H-10 through H-17, H-19 through H-22, I-4 through I-8, I-10, I-11, I-13, I-15, I-20, and K-1).
- (c) An initial inspection of this area by the site inspection team revealed that the bluff, which once supported the firing positions, has eroded to a point where only communication cables that once extended to the firing points (dropping downward from the bluff towards the beach) mark the general location of the firing points. The bluffs erode at a rate of approximately one (1) foot a year according to the State Park Service Manager. A thorough inspection of the bluff area and remainder of area lands failed to reveal the presence of OE or OE related residue or debris (see Photos J-7, J-8, and Plate 7).

e. Area D: AAA Battalion Bivouac Area

- (1) This area consists of approximately 11 acres of relatively flat and moderately vegetated land, which was identified as a bivouac site by historical documentation, interview information, and physical evidence (see Plates 3 and 4).
- (2) Historical and interview documents concerning this area indicate the following:
- (a) Due to the lack of available facilities early to house an AAA battalion in 1951, two 90mm AAA batteries at a

time bivouacked at Camp Hero, fired the required rounds, then returned to Fort Totten, making way for two more batteries (see document E-6).

- (b) An interview source, as a child, was shown expended small arms casings, empty ammunition cans, and some general field training rubbish (such as field ration debris) in this area (see document I-3)
- (6) An examination of this area by the site inspection team failed to reveal any evidence of an OE or an OE related debris presence. The inspection team did, however, find a concrete slab and rock lined dirt walkways in this area, which are characteristic features of an established bivouac area (see Photos J-9 and Plate 7).

f. Area E: Battery 113 (Dunn)

- (1) This area, consisting of 1.80 acres, served as a coastal defense 16-inch gun battery from 1943 through 1947. It is situated in a moderately vegetated parcel of land on the west central portion of site lands (see Plates 2 and 4).
- (2) Historical documents concerning this area indicate the following:
- (a) This battery was constructed as an underground self sufficient facility containing commercial and individual power supplies, a water supply system, powder and shell rooms, central traverse magazine, latrines, an oil fired forced hot water heating system, ventilation system, dehumidifying system, and gas defense system. The internal powder and shell rooms (internal storage magazines) were designed to contain 400 rounds of 16-inch ammunition and 400 powder charges (see documents E-2, E-3, and E-4).
- (b) This battery was covered with earth and camouflaged with natural vegetation to prevent enemy observation (see documents F-8 and I-8)
- (c) This battery was completed in March 1943 and the armament for this battery was delivered in January 1943 (see document F-7). The guns installed in this battery were two casemated Navy MKIIM1 models with M4 mounts (see documents D-4 and E-2).
- (d) A .50 caliber antiaircraft automatic weapon platoon of 4 guns was positioned at this battery (see documents D-3 and E-2).

- (e) A battle allowance of 200 16-inch 2,240-lb projectiles and war reserve allowance of 300 16-inch 2,240-lb rounds was prescribed for this battery (see documents D-1 and E-3).
- (f) This battery, along with the other Camp hero batteries, fired occasionally in practice (see documents F-16, E-15, I-5, I-8, and I-17).
- (g) The guns were removed from this battery in 1949 (see document H-9).
- (h) The southern exposure of this battery was used as a makeshift small arms range for the small arms weapon qualification of Air Force personnel. Targets were just set up on the raised battery earthen mound, without any formal range development ever occurring (see documents D-3, I-15, and I-16).
- (3) A thorough inspection of the exterior battery area and area surrounding the battery by the inspection team failed to reveal a remaining OE or OE debris presence, to include any evidence associated with small arms weapon firing. The inspection team was unable to inspect the interior of the battery due to the sealing with concrete of all possible access points due to unauthorized entry and vandalism. This area was visited and thoroughly investigated by a credible witness following the Army usage period when access to the battery was still possible. This individual failed to discover a remaining OE presence at that time (see document I-16, Photos J-10 through J-12, and Plate 7).

g. Area F: Battery 112

- (1) This area, consisting of 2.23 acres, served as a coastal defense 16-inch gun battery from 1943 through 1947. It is situated in a moderately vegetated parcel of land on the west central portion of site lands (see Plates 2 and 4).
- (2) Historical documents concerning this area indicate the following:
- (a) This battery was constructed as an underground self sufficient facility containing commercial and individual power supplies, a water supply system, powder and shell rooms, central traverse magazine, latrines, an oil fired forced hot water heating system, ventilation system, dehumidifying system, and gas defense system. The internal powder and shell rooms (internal storage magazines) were designed to contain 400 rounds of 16-inch ammunition and 400 powder charges (see documents E-2, E-3, and E-4).

- (b) This battery was covered with earth and camouflaged with natural vegetation to prevent enemy observation (see documents F-8 and I-8).
- (c) This battery was completed in May 1943 and the armament for this battery was delivered in August 1943 (see document F-7). The guns installed in this battery were two casemated Navy MKIIM1 models with M4 mounts (see documents D-2 and E-2).
- (d) A .50 caliber antiaircraft automatic weapon platoon of 4 guns was positioned at this battery (see documents D-3 and E-2).
- (e) A battle allowance of 200 16-inch 2,240-lb projectiles and war reserve allowance of 300 16-inch 2,240-lb rounds was prescribed for this battery (see documents D-1 and E-3).
- (f) This battery, along with the other Camp hero batteries, fired occasionally in practice (see documents F-16, E-15, I-5, I-8, and I-17).
- (g) The guns were removed from this battery in 1949. (see document H-9).
- (h) This battery was used as a supply storage area for Air Force equipment and supplies and a shelter during hurricanes for Air Force personnel and members of the local community (see documents E-18 and I-12).
- (3) A thorough inspection of the exterior battery area and area surrounding the battery by the inspection team failed to reveal a remaining OE or OE debris presence. The inspection team was unable to inspect the interior of the battery due to the sealing with concrete of all possible access points due to unauthorized entry and vandalism. This area was visited and thoroughly investigated by a credible witness following the Army usage period when access to the battery was still possible. This individual failed to discover a remaining OE presence at that time (see document I-16, Photos J-13 through J-15, and Plate 7).

h. Area G: Makeshift Small Arms Firing Range

(1) This area, consisting of approximately .60 acres of irregular shaped terrain lined with numerous drainage ditches and the spoils from digging these ditches, served as a makeshift small arms weapon qualification range by Air Force personnel.

- (2) Two interview sources described the location of this area and the small arms weapon qualification firing which occurred in this area. Targets were reportedly set up on an earthen berm in this area, without any formal range development ever occurring (see documents D-3, I-6 and I-12).
- (3) An inspection of the berms in this area, that had an adequate accessible field of fire for small arms weapons firing, failed to display any remaining target or OE evidence (see Photo J-16 and Plate 7).

i. Area H: Ordnance Destruction Range

- (1) This area consisting of approximately 8 acres of bluff, swamp, and heavily overgrown and irregularly shaped inland area, was determined by the site inspection team to be an area that was used for the destruction of ammunition. This area extends from the southern bluff of the site, overlooking the Atlantic Ocean, northward. An old sewage effluent pipe emerges from the bluff to the beach approximately two (2) to three (3) hundred yards east of the center of the southern edge of this area.
- (2) The heavy vegetation of this area, in areas that will support vegetation, consists of scrub oak and brush.
- (3) The soil types of this area are Es, MfB, MfC, MIB, and MIC (see paragraph 3 (d) of this document and reference B-6). These are mentioned for geophysical survey preparation purposes in the event of future remediation.
- (4) No historical documentation was located to specify military usage of this area. A hazardous material feasibility study of this area, that was conducted by a private firm for the State of New York in 1998, cites the discovery of projectile fragments in this area (see reference B-9). Several ordnance discoveries are believed to have occurred in this area or near this area, a few possibly associated with the erosion of the areas southern bluff. These included projectiles, a 3.5-inch rocket, and an expended .50 caliber cartridge casing (see documents D-1, D-3, D-5, I-1, I-2, and I-18).
- (5) An inspection of the southern portion of this area revealed that OE items were weathering from the bluff to the Near Shore Ordnance Area (Area K). Items weathering from the bluff included projectile fragments, functioned projectile fuzes, fuze debris, a 1942 .50 caliber cartridge casing, and a .50 caliber bullet. In the upland area north of the bluff an empty 17-23-pound fragmentation bomb body, projectile fragments, projectile bases, and a partially buried 3.5-inch rocket were discovered

(see Documents D-1, D-2, and D-3). Heavy vegetation and some swampy areas prevented a thorough inspection of this area. A cursory magnetometer check of this upland area also displayed the presence of numerous subsurface ferrous metal anomalies (see Photos J-17 through J-22 and Plate 7). Some of the items found in this area cannot be associated with Camp Hero ordnance activity, but may have been associated with other military activity over the years in the Montauk area (see paragraph 4, subparagraph a).

j. Area I: Target Plane Launching Area

- (1) This area, consisting of 1 acre, was used for the launching of AAA radio controlled airplane targets from 1951 to 1957. The area contained a circular launching area surrounded by a paved roadway, with the circular launching area now heavily vegetated wit scrub oak and brush (see plates 3 and 4).
- (2) Historical documents and interview information concerning this area indicate that radio controlled aircraft targets were launched from this area during AAA firing exercises in the 1950's, with the actual firing taking place over the Atlantic Ocean (see documents E-14, H-21, I-1, I-4, I-6, and I-15).
- (3) An inspection of this area by the site inspection team failed to reveal a remaining target plane, target launcher, OE, or OE debris presence (see photo J-23 and Plate 7).

k. Area J: Plotting/Switchboard Rooms

- (1) This area, consisting of two separate structure areas totaling .50 acres, served as plotting and switchboard rooms for 16-inch Batteries 112 and 113 of Camp Hero. Target angles and projectile fall and correction data were fed to these structures, during the coastal defense period of operation of the camp the 1940's, where fire was adjusted from the data collected to assure accurate target acquisition. These areas are located in moderately vegetated wooded areas in the vicinity of the aforementioned batteries (see document F-13 and Plates 2 and 4).
- (2) There was no historical or interview data discovered to substantiate any form of ordnance activity in this area. This area was listed as an OE project area due to the misconception that these were ammunition storage bunkers. Historical documentation clearly displays that they were substantial self sufficient concrete structures (with earthen cover) used solely to receive and transmit firing information to batteries, and they contained no ordnance related facilities or capability whatsoever (see documents E-4 and F-13).

(3) The site inspection team failed to discover an OE presence or OE debris presence in this area.

1. Area K: Near Shore Ordnance Area (Additional Lands).

- (1) This area consists of approximately 44.88 acres of relatively flat, rocky, and unvegetated shore front land, extending south from the southern bluffs of site lands to a point 100 yards beyond the mean high water line (see Plate 4).
- (2) The soil type of this area is Es (see paragraph 3 (d) of this document and reference B-6). This is mentioned for geophysical survey preparation purposes in the event of future remediation.
- (3) Historical and interview documents concerning this area indicate the following:
- (a) A skin-diver found a 90mm projectile in this area. This led to an Air Force Explosive Ordnance Disposal (EOD) team investigation and clearance of this area in June 1962. Over 200 OE items were discovered in this area to include cannon balls, modern artillery projectiles, projectile fuzes, practice rockets, an intact hand grenade, 70 rounds of assorted ammunition, and several unidentified objects. These items were suspected to have been deposited in this area after a March storm. The cannon balls were believed to have been associated with Revolutionary War and War of 1812 American and British ships that fired into the Montauk bluffs for target practice. Skin divers had found cannon balls embedded in the bluffs several years prior to the recent discovery (see documents D-1, D-3, D-5, and H-26).
- (b) A reportedly live 3.5-rocket was found in this area by a fisherman around 1996 or 1997 (see documents D-5, I-1, and I-18). This was possibly associated with the weathering of the southern bluff of Area H, which, as previously mentioned, caused the deposition of OE items (see paragraph 6, subparagraph I above).
- (c) A state employee discovered a projectile in this area (which he believed to be west of this area) about six (6) years ago (see document I-2).
- (d) A police official stated that about 12 (twelve) to 13 (thirteen) incidents involving OE have occurred at Camp Hero over the years, presumably in this area (see document I-9).

(4) The site inspection team discovered projectile fragments, functioned projectile fuzes, fuze debris, a 1942 .50 caliber cartridge casing, and a .50 caliber bullet in this area, resulting from the erosion of the southern bluff of Area H as previously discussed. The inspection team was unable to find any additional OE evidence or OE debris evidence in this area during low tide. However, due to the rocky nature of the shoreline and the general coloration of the rocks, items may have been easily missed. In addition, shifting sands may have covered the items, precluding observation (see documents D-1, D-3, Photo J-18, and Plate 7).

m. Area L: Off Shore Ordnance Area (Additional lands).

- (1) This area consists of approximately 756,491.75 acres of Atlantic Ocean, which was used as a practice firing area for 90mm, 120mm, 6-inch, and 16-inch projectiles, quad .50 caliber machine-guns, and 3.5-inch rockets (see Plates 2 through 6).
- (2) Historical and interview documents concerning this area indicate the following:
- (a) From 1943 to 1947, 6-inch and 16-inch coastal defense guns fired into this area for practice purposes (see documents D-1, E-15, F-16, I-5, I-8, and I-17). The firing fans of these guns and the ranges were illustrated in a historical document (see document E-2 and Plate 5).
- (b) From 1951 to 1957, AAA battalions fired 90mm and 120mm projectiles, quad .50 caliber machine-guns, and 3.5-inch rockets into this area for practice purposes. The firing fans for these weapons fall within the firing fans of the 6-inch and 16-inch guns. The firing fans and ranges of the 90mm and 120mm guns are illustrated on Plate 5 (see documents D-1, D-3, D-5, E-5 through E-14, H-10 through H-17, H-19 through H-22, I-3 through I-8, I-10, I-11, I-13, and I-15).
- (c) A 1993 National Ocean Service Coast and Geodetic Survey LORAN-C Map for Block Island displays three areas in the ocean south and southwest of the former Camp Hero shoreline which displayed an unexploded ordnance hazard (see reference B-142). These areas are displayed on Plate 6. An attempt to obtain the ordnance incident information which prompted the placement of these markings on the map proved futile, they could not be found, only the documents which provided the map posting coordinates of unidentified ordnance locations were recovered. These areas may be associated with an ordnance dumping ground area mentioned in a newspaper article to present off of Montauk Point (see document H-41). They may have also been associated with Camp Hero firing activities.

(3) Due to obvious reasons, the site inspection team was unable to inspect this area. However, due to a large volume of fire which was directed into this area, and the discovered presence of a substantial quantity of OE items over the years in Area K, a significant ordnance presence is also believed to remain in Area L.

m. Area M: All Other Lands

This area consists of all property and structures identified as part of the former Camp Hero (Montauk Air Force Station), other than that contained within Areas A through K (approximately 434.86 acres). The assessment team found no historical, interview, or physical evidence of an OE presence within this area. However, a document related to CWM was found during the site investigation discussing an exercise in 1945 in which a Chemical Agent Identification Set was utilized in training. This is believed to have been an infrequent or singular training event. There was no additional historical, interview, or physical evidence of additional CWM usage or remaining CWM presence in this area or other areas of this site (see documents D-8, E-20, Photos J-24 through J-26 and Plates 2, 3, 4, and 7).

7. EVALUATION OF ORDNANCE HAZARDS

a. General Procedures

- (1) The site was evaluated to determine confirmed, potential, or no ordnance presence.
- Confirmed ordnance presence is based on verifiable historical record evidence or direct witness of OE items (with explosive components and/or inert debris/fragments) since site closure. Additional field data is not needed to identify a confirmed site. Verifiable historical record evidence is based on OE items actually seen on site since site closure and authenticated by: historical records (Archive Records, Preliminary Assessment Reports, Site Investigation Reports), local fire departments and law enforcement agencies/bomb squads, military Explosive Ordnance Disposal (EOD) Units, newspaper articles, photographs, or maps. Direct witness of OE items consists of the site inspection team(s) and other credible witnesses as determined by the ASR Research Team Leader (landowners, on-site workers, soldiers who served there, etc.) verifying that they have seen OE presence on the surface or subsurface since site closure.

- Potential ordnance presence is based on a lack of confirmed OE presence. Potential OE presence is inferred from records, present day site features, non-verifiable direct witness, or indirect witness. Additional field data is needed to confirm potential OE sites. Inference from historical records is based on no OE items located on site since site closure and would include documentation (records, aerial photographs, maps) indicating possible OE presence derived from common practice in production, storage, use, or disposal at that time and from records indicating known OE usage. Inference from present day site features would be the indication of possible OE presence from such obvious features as target circles, depressions, mounds/backstops, OB/OD areas/pits, etc. Indirect witness would be people who have stated that they have heard of OE presence on site (hearsay evidence).
- (4) **No Ordnance Presence** is based on a lack of confirmed or potential ordnance evidence. There is no reasonable evidence, either direct or inferred, to suggest present day ordnance presence. Additional field data is not needed to assess no ordnance presence sub-sites.

b. Area A: Fire Control Station/37mm AAA Station (Additional Lands)

This area is considered to be an area of no ordnance This area contained a fire control tower and auxiliary power plant built by the Army to serve as a fire control station for the batteries of guns at Camp Hero (and a couple of outlying qun batteries), and a 37mm (later 40mm) AAA position to defend Camp Hero in the event of air attack. Target angles and projectile fall and correction data were fed from this location, during the coastal defense period of operation in the 1940's, to a separate plotting room on Camp Hero, where fire was adjusted for accurate target acquisition of battery guns. In the event of air attack, the 37mm (later 40mm) automatic weapons section, which was positioned on the roof of the tower, stood ready to defend Camp Hero. No historical data, interview information, or physical evidence could be found to indicate actual ordnance firing from this location or a remaining OE presence at this location (see documents E-2, E-3, E-4, F-13, G-1, and J-1).

c. Area B: Battery 216

- (1) This area is considered to be an area of **no ordnance presence**.
- (2) Two Army 6-inch shielded M1903A2 gun emplacements were present upon this self sufficient battery, and this battery

contained powder and shell rooms and a central traverse magazine system to store the ammunition for the guns and feed the ammunition to the guns. A .50 caliber antiaircraft automatic weapon platoon of 4 guns was positioned at this battery to protect it from air attack (see documents E-2 and E-4).

- (3) A battle allowance of 200 6-inch 90-lb HE (high explosive) rounds and 300 6-inch 105-lb AP (armor piercing) rounds filled the shell room of this battery, and a sufficient amount of propellant to fire these rounds were stored in the powder room. A greater amount of ammunition may have been stored in this battery due to practice firing requirements. The type, quantity, and storage location for .50 caliber AAA ammunition for this battery is unknown (see documents E-2 and E-3).
- (4) During AAA usage of a portion of Camp Hero from 1951 to 1957, AAA OE was stored in this. OE known to have been used by the AAA at Camp Hero included 90mm and 120mm projectiles, .50 caliber ammunition, and 3.5-inch rockets (see documents E-5 through E-14, H-10 through H-17, H-19 through H-22, I-3 through I-8, I-10, I-11, I-13, and I-15). Only the storage of 90mm projectiles in this battery can be confirmed (see document I-4).
- (5) Although a significant quantity of OE can be associated with this battery, no historical, interview, or physical evidence could be located to substantiate a remaining OE or OE debris presence in this area.

d. Area C: AAA Firing Area

- (1) This area is considered to be an area of **no ordnance presence**.
- (2) This area was utilized as an AAA firing area, consisting of three firing points, during AAA unit firing activities from 1951 to 1957. 90mm guns, 120mm guns, quad .50 caliber machine guns, and 3.5-inch rockets were fired for training purposes from this area, at targets in or over the Atlantic Ocean (see documents E-5 through E-14, H-10 through H-17, H-19 through H-22, I-3 through I-8, I-10, I-11, I-13, I-15, and Plates 3 and 4).
- (3) The actual firing point locations of this area are now diminished due to the erosion of the bluff in which they were placed (see Photos J-2, J-3, and Plate 7).
- (4) Although a significant amount of firing occurred from this area towards the ocean, no historical, interview, or physical evidence could be found to substantiate a remaining OE presence in this area.

e. Area D: AAA Battalion Bivouac Area

- (1) This area is considered to be an area of **no ordnance presence**. This area contained a bivouac site for AAA battalions participating in artillery firing exercises over the Atlantic Ocean from 1951 to 1957. The area was used for bivouac purposes only, due to limited facilities available to the Army during this time period, as verified by historical documents and the discovery of rock lined earthen walks and a concrete slab in the area by the inspection team (see document E-6, Photo J-9, and Plates 3, 4, and 7).
- (2) A person interviewed had once discovered expended small arms cartridge casings and empty ammunition boxes in this area (see document I-3). The site inspection team was unable to find any firing range evidence in this area. Additionally, the site inspection team was unable to find any historical or interview evidence citing the construction of a range in this area, or any additional historical, interview, or physical evidence of a remaining OE presence in this area.

f. Area E: Battery 113 (Dunn)

- (1) This area is considered to be an area of **no ordnance presence**.
- (2) Two Navy casemated MKII gun emplacements were present within this self-sufficient battery, and this battery contained powder and shell rooms and a central traverse magazine system to store the ammunition for the guns and feed the ammunition to the guns. The internal powder and shell rooms (internal storage magazines) were designed to contain 400 rounds of 16-inch ammunition and 400 powder charges (see documents E-2, E-3, and E-4). A .50 caliber antiaircraft automatic weapon platoon of 4 guns was positioned at this battery to protect it from air attack (see documents E-2 and E-3).
- (3) A battle allowance of 200 16-inch 2,240-lb projectiles were stored in the shell room of this battery, and a sufficient amount of propellant to fire these rounds were stored in the powder room (see document E-3). A greater amount of ammunition may have been stored in this battery due to practice firing requirements and a greater available storage capacity, and also for the storage of site coastal defense era AAA ammunition. The type, quantity, and actual storage location the .50 caliber AAA ammunition for this battery was not specified in available historical documents (see documents E-2 and E-3).

- (4) Air Force personnel, in later years, used the southern earthen face of this battery as a makeshift small arms weapon range for weapons qualification purposes (see documents I-15 and I-16).
- (5) Although a significant quantity of OE can be associated with this battery, no historical, interview, or physical evidence could be located to substantiate a remaining OE or OE debris presence in this area (see Photos J-10 through J-12 and Plates 2, 4, and 7).

g. Area F: Battery 112

- (1) This area is considered to be an area of **no ordnance presence**.
- (2) Two Navy casemated MKII gun emplacements were present within this self-sufficient battery, and this battery contained powder and shell rooms and a central traverse magazine system to store the ammunition for the guns and feed the ammunition to the guns. The internal powder and shell rooms (internal storage magazines) were designed to contain 400 rounds of 16-inch ammunition and 400 powder charges (see documents E-2, E-3, and E-4). A .50 caliber antiaircraft automatic weapon platoon of 4 guns was positioned at this battery to protect it from air attack (see documents E-2 and E-3).
- (3) A battle allowance of 200 16-inch 2,240-lb projectiles were stored in the shell room of this battery, and a sufficient amount of propellant to fire these rounds were stored in the powder room (see document E-3). A greater amount of ammunition may have been stored in this battery due to practice firing requirements and a greater available storage capacity, and also for the storage of site coastal defense era AAA ammunition. The type, quantity, and actual storage location the .50 caliber AAA ammunition for this battery was not specified in available historical documents (see documents E-2 and E-3).
- (4) Although a significant quantity of OE can be associated with this battery, no historical, interview, or physical evidence could be located to substantiate a remaining OE presence in this area (see Photos J-13 through J-15 and Plates 2, 4, and 7).

h. Area G: Makeshift Small Arms Firing Range

(1) This area is considered to be an area of **no ordnance presence**. Two interview sources described the utilization of this area as a crude, not to military standard, small arms weapon

qualification range. Targets were reportedly set up on a earthen berm in this area, a berm formed by the spoils of a drainage ditch (see documents I-6 and I-12).

(2) There was no historical, interview, or physical evidence discovered to substantiate a remaining OE presence in this area (see Photo J-16 and Plates 3, 4, and 7).

i. Area H: Ordnance Destruction Range

- (1) This area is considered to be an area of **confirmed** ordnance presence.
- Although no historical documentation could be found to substantiate the military use of this area, the site inspection team determined that this area was used for the destruction of ammunition. A hazardous material feasibility study of Camp Hero cited the discovery of projectile fragments in this area (see reference B-9). Several ordnance discoveries are believed to have occurred in this area or near this area, a few possibly associated with the erosion of the areas southern bluff. These discoveries included projectiles, a 3.5-inch rocket, and an expended .50 caliber cartridge casing (see documents I-1, I-2, and I-18). An inspection of the southern portion of this area revealed that OE items were weathering from the bluff of this area to the Near Shore Ordnance Area (Area K). Items found weathering from the bluff included projectile fragments, functioned projectile fuzes, fuze debris, a 1942 .50 caliber cartridge casing, and a .50 caliber bullet (see Photo J-18 and In the upland area north of the southern bluff boundary of this area, an empty 17 to 23-pound fragmentation bomb body, projectile fragments, projectile bases, and a partially buried 3.5-inch rocket were discovered (see Photos J-19 to J-21). A cursory magnetometer check of the upland area also displayed the presence of numerous subsurface ferrous metal anomalies (see Photo J-22 and Plate 7). Some of the items found in this area cannot be associated with Camp Hero ordnance activity, but may have been associated with other military activity over the years in the Montauk area (see paragraph 4, subparagraph a). this area was used to destroy the 200 or so ordnance items discovered in Area K by Air Force EOD personnel in 1962, although the newspaper article that described this activity stated that the items were brought to a location away from Camp Hero lands for destruction (see document H-26).

j. Area I: Target Plane Launching Area

(1) This area is considered to be an area of **no ordnance presence**. This area was used solely for the launching of AAA radio controlled airplane targets from 1951 to 1957. The actual

firing at these targets occurred over the Atlantic Ocean (see documents E-13, I-1, I-4, I-6, and I-15).

(2) There was no historical, interview, or physical evidence discovered to substantiate an OE usage in this area or a remaining OE presence in this area.

k. Area J: Plotting/Switchboard Rooms

- (1) This area is considered to be an area of **no ordnance presence**.
- (2) Historical documentation clearly displays that the plotting/switchboard rooms of this area were substantial self sufficient concrete structures (with earthen cover) used solely to receive and transmit firing information to batteries, and that they contained no ordnance related facilities or capability whatsoever (see documents E-4 and F-13).
- (3) There was no historical data, interview information, or physical evidence discovered to substantiate any form of OE activity in this area or of a remaining OE presence in this area. This area was only listed as an OE project area due to the misconception that these were ammunition storage bunkers (see Plates 2 and 4).

1. Area K: Near Shore Ordnance Area (Additional Lands).

- (1) This area is considered to be an area of **confirmed** ordnance presence.
- A skin-diver found a 90mm projectile in this area. (2) This led to an Air Force Explosive Ordnance Disposal (EOD) team investigation and clearance of this area in June 1962, ending with the discovery of 200 OE items to include cannon balls, modern artillery projectiles, projectile fuzes, practice rockets, an intact hand grenade, 70 rounds of assorted ammunition, and several unidentified objects (see document H-26). A reportedly live 3.5-inch rocket was found in this area by a fisherman around 1996 or 1997 (see documents I-1 and I-18). This was possibly associated with the weathering of the southern bluff of Area H (see paragraph 6, subparagraph I above). A state employee discovered a projectile in this area (which he believed to be west of this area) around 1994 (see document I-2). A police official stated that about 12 (twelve) to 13 (thirteen) incidents involving OE have occurred at Camp Hero over the years, presumably in this area (see document I-9). The site inspection team discovered projectile fragments, functioned projectile fuzes, fuze debris, a 1942 .50 caliber cartridge casing, and a .50 caliber bullet in this area, resulting from the erosion of

the southern bluff of Area H (see photo J-18 and Plates 4 and 7).

- m. Area L: Off Shore Ordnance Area (Additional Lands).
- (1) This area is considered to be an area of **confirmed** ordnance presence.
- From 1943 to 1947, 6-inch and 16-inch coastal (2) defense guns fired into this area for practice purposes (see documents E-15, F-16, I-5, I-8, and I-17). The firing fans of these guns and the ranges were illustrated in a historical document (see document E-2 and Plate 5). From 1951 to 1957, AAA battalions fired 90mm and 120mm projectiles, quad .50 caliber machine-guns, and 3.5-inch rockets into this area for practice purposes (see documents E-5 through E-14, H-10 through H-17, H-19 through H-22, I-4 through I-8, I-10, I-11, I-13, I-15, I-20, and The firing fans for these weapons fall within the firing fans of the 6-inch and 16-inch guns (see Plates 5 and 6). 1993 National Ocean Service Coast and Geodetic Survey LORAN-C Map for Block Island displays three areas in the ocean south and southwest of the former Camp Hero shoreline which displayed an unexploded ordnance hazard (see reference B-142). These areas are displayed on Plates 5 and 6. These areas may be associated with an ordnance dumping ground area mentioned in a newspaper article to present off of Montauk Point (see document H-341). They may have also been associated with Camp Hero firing activities.

m. Area M: All Other Lands

This area is considered to be an area of no ordnance This area consists of all property and structures identified as part of the former Camp Hero (Montauk Air Force Station), other than that contained within Areas A through K (approximately 434.86 acres). The assessment team found no historical, interview, or physical evidence of an OE presence within this area. However, a document related to CWM was found during the site investigation discussing an exercise in 1945 in which a Chemical Agent Identification Set was utilized at Camp Hero in training. This is believed to have been an infrequent or singular training event. There was no additional historical, interview, or physical evidence of additional CWM usage or remaining CWM presence in this area or other areas of this site (see documents D-8, E-20, Photos J-24 through J-26 and Plates 2, 3, 4, and 7).

8. SITE ORDNANCE TECHNICAL DATA

a. End Item Technical Data.

- (1) Table 8-1 contains a listing of ammunition and explosive fillers for items with a potential or confirmed use within the project portion of the former Camp Hero .
- (2) Technical data and drawings relative to the end items listed in table 8-1 can be found in Appendix D.

TAM		TABLE 8-1 D EXPLOSIVE/CHEMICAL FILL	ar,
ITEM	MODEL/TYPE	FILLER/WEIGHT	FUZE/TYPE
	SM	ALL ARMS AMMUNTION	
Cal .30 cartridge	M1 Ball	Propellant - 52.0 gr IMR 4198 Bullet - 115.5 gr lead/antimony slug with 54.5 gr copper alloy jacket	N/A
	M2 Ball	Propellant - 50.0 gr IMR 4895 Bullet - 100.0 gr lead/antimony slug with 52.0 gr copper alloy jacket	N/A
	M3 Grenade cartridge	Propellant - 45.0 gr IM 4895	N/A
	M1909 Blank	Propellant - 12.0 gr SR 4990	N/A
	M1 Tracer	Propellant - 50 gr IMR 4895 Bullet - lead/antimony slug with copper alloy jacket Tracer - R256	N/A
	M25 Tracer	Propellant - 50 gr WC 852 Bullet - 145.5 gr lead/antimony slug with copper alloy jacket Tracer - R321	N/A
	M2 AP	Propellant - 55 gr WC 852 Bullet - 165.7 gr steel core with lead point filler and copper alloy jacket	N/A
	M40 Dummy	(INERT)	N/A

AMMUNI	PRE CHAR CERU NOT!	TABLE 8-1 LOSIVE/CHEMICAL FIGHER (Co.	ntinued)
ITEM	MODEL/TYPE	FILLER/WEIGHT	FUZE/TYPE
	SMALL ARI	MS AMMUNTION (Continued)	
Cal .30 carbine cartridge	M1 Carbine ball	Propellant - 13.0 gr WC 820 Bullet - 83.0 gr lead/antimony slug with 25.0 gr steel jacket	N/A
	M6 Grenade cartridge	Propellant - 21.0 gr IMR 4809 and black powder	n/a
	M18 Ball	Propellant - 14.0 gr HPC 5 Bullet - 118.0 gr lead/antimony slug with 34.0 gr gilding metal jacket	n/A
	M27 Tracer	Propellant - 13 gr WC 820 Bullet - lead/antimony slug with gilding metal jacket	N/A
	M13 Dummy	(INERT)	N/A
.38 cal cartridge	Ball	Propellant - smokeless powder Bullet - lead/antimony slug with gilding metal jacket	N/A
	M41 Ball, special	Propellant - 4.8 gr SR 7325 Bullet - lead/antimony slug with gilding metal jacket	N/A
	Wad cutter	Propellant - smokeless powder Bullet - lead/antimony slug with gilding metal jacket	N/A
.45 cal cartridge	M1911 Ball	Propellant - 5 gr SR 7970 Bullet - 234 gr lead/antimony slug with gilding metal jacket	N/A
	M26 Tracer	Propellant - 6 gr SR 7970 Bullet - lead/antimony slug with gilding metal jacket Tracer - R256	N/A
5.56mm cartridge	M193 Ball	Propellant - 28.5 gr WC 844 or 26.5 gr CMR-170 Bullet - 56.0 gr steel slug with gilding metal jacket	N/A
	M855 Ball	Propellant - 26.1 WC 844 Bullet - 62.0 gr steel slug with gilding metal jacket	N/A

AMMUNET	ion used and e	TABLE 8-1 XPROSIVE/CHEMICAL FILLER (Co	ntinued)
ITEM	MODEL/TYPE	FILLER/WEIGHT	FUZE/TYPE
	SMALI	ARMS AMMUNTION (Continued)	
	M196 Tracer	Propellant - 28.5 gr CMR-170	N/A
		Bullet - 54.0 gr steel slug with	
		gilding metal jacket	
		Tracer - R284	
	M856 Tracer	Propellant - 24.7 gr WC 844	N/A
		Bullet - 63.7 gr steel slug with	
		gilding metal jacket Tracer - R284	
		Tracer - R284	į
	M200 Blank	Propellant - 7 gr HPC 13	N/A
	M199 Dummy	(INERT)	n/A
.50 cal	M1 Ball	Propellant - 240 gr WC 860	N/A
cartridge		Bullet - 325 gr lead/antimony slug	
		with 263 gr copper alloy jacket	
.50 cal	M2 Ball	Propellant - 235 gr WC 860	N/A
cartridge	•••	Bullet - 400 gr steel slug with 253	
(continued)		gr copper alloy jacket	
]		Point filler - 56.5 gr lead/antimony	
	M33 Ball	Propellant - 235 gr WC 860	N/A
		Bullet - steel slug with copper	
		alloy jacket	
		Point filler - lead/antimony	
	M2 AP	Propellant - 235 gr WC 860	N/A
		Bullet - steel slug with copper	
		alloy jacket	
		Point filler - lead/antimony	
	Ml Tracer	Propellant - 240 gr IMR 5010	N/A
		Bullet - lead/antimony slug	
		with gilding metal jacket	
		Tracer - R256	
	M10 Tracer	Propellant - 240 gr IMR 5010	n/A
Į.		Bullet - 207 gr lead/antimony slug	
		with 365 gr gilding metal jacket	
		Tracer - R256	
	M17 Tracer	Propellant - 225 gr IMR 5010	
		Bullet - 207 gr lead/antimony slug	
		with 365 gr gilding metal jacket	
L		Tracer - R256	

AMMUNITI	ON USED AND EXP	TABLE 8-1 LOSIVE/CHEMICAL FILLER (CO	ntinued)
ITEM	MODEL/TYPE	FILLER/WEIGHT	FUZE/TYPE
	M1 Blank	Propellant - 46 gr WC 150	N/A
	M1A1 Blank	Propellant - 42 gr Dupont Hi Skor 700X	N/A
	M2 Dummy	(INERT)	N/A
ROCKETS			:
Rocket, 3.5	M28 HEAT	Explosive filler - 1.93 lb comp B Propellant - 0.36 lb M7	M404 or M404A1 BD
	M28A2 HEAT	Explosive filler - 1.90 lb comp B Propellant - 0.35 lb M7	M404A1 or M404A2 BD
	M29A1, M29A2 Practice	Filler - (INERT) Propellant - 0.35 lb M7	M405 Dummy
ANTIAIRCRA	AFT ARTILLERY PRO	DJECTILES	
Shell, 37mm	M54 HE-T	Explosive filler - 0.10 lb tetryl Tracer - 0.025 lb tracer comp Propellant - 0.38 lb M1, M2, or M5	M56 PD
	M55A1 TP-T	Tracer - 0.017 lb tracer composition Propellant - 0.38 lb M1, M2 or M5	M50 dummy
Shot, 37mm	M59A1 APC-T	Tracer - 0.01 lb tracer composition Propellant - 0.31 lb M1	N/A
	M74 AP-T	Tracer - 0.01 lb tracer composition Propellant - 0.31 lb M1	(None)
Shell, 40mm	Mk 2 HE-T	Explosive filler - TNT Tracer - tracer composition Propellant - 11.49 oz M1	Mk 27, M71 PD
	Mk 2 TP-T	Tracer - tracer composition Propellant - 11.49 oz M1	M69 dummy
	M91 TP-T	Tracer - 0.02 lb tracer composition Propellant - 11.49 oz M1	M69 dummy
Shot, 40mm	M81A1 AP-T	Tracer - 0.02 lb tracer composition Propellant - 10.4 oz M1	(None)
Shell, 90mm	M71 HE	Explosive filler - 2.04 lb TNT Propellant - 7.31 lb M6	M43A4 MT; M51A4 PD

AMMUNITI	ON USED AND EXP	TABLE 8-1 TOSTVE/CHEMICAL FILLER (Co.	ntinued)
ITEM	MODEL/TYPE	FILLER/WEIGHT	FUZE/TYPE
	ANTIAIRCRAFT AR	TILLERY PROJECTILES (continued)	
	M71 TP	Filler - (INERT)	M73 dummy
		Propellant - 7.31 lb M6	
	M58 Practice	Filler - (INERT)	M43A2 dummy
		Spotting charge - 0.56 lb black powder	
		Propellant - NH smokeless powder	
Shot, 90mm	M77 AP-T	Tracer - 0.01 lb tracer composition Propellant - 7.31 lb M6	(None)
Shell, 120mm (4.7 inch)	м73 не	Explosive filler - 5.26 lb TNT, 4.8 lb 50/50 amatol or 5.42 lb trimonite Propellant - NH smokeless powder	M61 MT
SEACOAST	ARTILLERY PROJEC	CTILES	
Shell, 6 inch	90 lb, Mk IIA1 HE	Explosive filler - 13.98 lb TNT Propellant - 29 lb M18	M51 PD
Shot, 6 inch	108 lb, Mk XXXIII AP	Explosive filler - 4.53 lb exp. D Propellant - 29 lb M16	M60 BD
Projectile, 16 inch	Mk 5 AP	Explosive filler - 33.6 lb exp. D Tracer - Mk 5 Propellant - NH smokeless powder	Mk 21, Mk 23 BD
BOMBS			
Bomb, Fragmentation 20 pound	AN-M41A1	Explosive filler - 2.7 lb TNT or 2.8 lb comp B	AN-M110, AN-M158 or AN-M120 nose
MISCELLAN	EOUS		
Set K951/K952	Ml War Gas ID Set, Instructional	Ampoules - 1.4 oz 5% H solution in chloroform (x12) - 1.4 oz 5% L solution in chloroform (x12) - 1.4 oz 50% PS solution in chloroform (x12) - 1.4 oz CG	N/A
	M1 Set Gas ID, Detonation	Contents - blasting caps	n/A

b. Chemical Data of Ordnance Fillers

Table 8-2 has been developed to provide information on the explosive/chemical compounds used in the ordnance cited in Table 8-1.

CHEMICAL	TABLE 8-2 DATA OF ORDNANCE FILLE	2
FILLER	SYNONYM(S)	CHEMICAL FORMULA
Amatol		
TNT		$CH_3C_6H_2$ (NO ₂) 3
Ammonium Nitrate		NH ₄ NO ₃
Ammonium Nitrate		NH ₄ NO ₃
Antimony		Sb
Ballistite	(see double base powder)	
Barium Nitrate		Ba (NO ₃) ₂
Black Powder	Saltpeter, Niter	
74% Potassium Nitrate	•	KNO ₃
11% Sulfur		s
15% Charcoal		C
Charcoal	Carbon	C
Chemical Agents		
Chloropicrin	PS	$C(NO_2)Cl_3$
Lewisite	L, Dichloro (2-	ClCH: CHAsCl ₂
	chlorovinyl) arsine	
Mustard	H, Dichloro-diethyl	(ClCH ₂ CH ₂) ₂ S
	Sulfide	
Distilled Mustard	HD, Dichloro-diethyl Sulfide	(ClCH ₂ CH ₂) ₂ S
Phosgene	CG, Carbonyl Chloride	COCl ₂
Chloroform		CHCl ₃
Composition B	Comp B	
60% RDX		$C_3H_6N_3$ (NO ₂) ₃
39% TNT		$CH_3C_6H_2$ (NO ₂) ₃
Copper		Cu
Dinitrotoluene	DNT	$\mathrm{CH_3C_6H_3}$ (NO ₂) ₂
Diphenylalamine	Stabilizer DPA	(C ₆ H ₅) ₂ NH

CHEMICAL DATA O	TABLE 8-2 F ORDNANCE FLUMERS (CO)	ntinued)
FILLER	SYNONYM(S)	CHEMICAL FORMULA
Double-Base Powder 60% Nitrocellulose 39% Nitroglcerine 0.75% Diphenylalamine	DB powder, Ballistite	$[(C_6H_8)_5(NO_2)_3]_n$ $(CH_2NO_3)_2CHNO_3$ $(C_6H_5)_2NH$
E.C. Blank Powder 80.4% Nitrocellulose 8.0% Potassium Nitrate 8.0% Barium Nitrate 3.0% Starch 0.6% Diphenylalamine	Single-Base Powder	$[(C_6H_8)_5(NO_2)_3]_n$ KNO_3 $Ba(NO_3)_2$ $(C_6H_5)_2NH$
Explosive D	Ammonium Diouete Dunnite	
	Ammonium Picrate, Dunnite	C_6H_8 (NO ₂) ₃ ONH ₄
Lead		Рþ
Magnesium		Mg
Nickel		Ni
Nitrocellulose	Guncotton; Pyroxylin; Nitrocotton; Cellulose Nitrate	$[(C_6H_8)_5(NO_2)_3]_n$
Nitroglycerine		(CH ₂ NO ₃) ₂ CHNO ₃
Potassium Nitrate		KNO ₃
Propellants M1		
85.00% Nitrocellulose 10.00% Dinitrotoluene 5.00% Dibutylphthalate		[(C ₆ H ₈) ₅ (NO ₂) ₃] _n CH ₃ C ₆ H ₃ (NO ₂) ₂
M2 77.45% Nitrocellulose 19.50% Nitroglycerine 1.40% Barium Nitrate 0.75% Potassium Nitrate 0.60% Ethyl Centralite 0.30% Graphite		[(C ₆ H ₈) ₅ (NO ₂) ₃] _n (CH ₂ NO ₃) ₂ CHNO ₃
M5 81.95% Nitrocellulose 15.00% Nitroglycerine 1.40% Barium Nitrate 0.75% Potassium Nitrate 0.60% Ethyl Centralite 0.30% Graphite		[(C ₆ H ₈) ₅ (NO ₂) ₃] _n (CH ₂ NO ₃) ₂ CHNO ₃

CHEMICAL DATA OF	TABLE 8-2 FORDNANCE FILLERS (Con	tinued)
FILLER	SYNONYM(S)	CHEMICAL FORMULA
Propellants (Continued) M6 87.00% Nitrocellulose 10.00% Dinitrotoluene 3.00% Dibutylphthalate		[(C ₆ H ₈) ₅ (NO ₂) ₃] _n CH ₃ C ₆ H ₃ (NO ₂) ₂
M7 54.6% Nitrocellulose 25.5% Nitroglycerine 7.8% Potassium Perchlorate 0.9% Ethyl Centralite 1.2% Carbon Black		[(C ₆ H ₈) ₅ (NO ₂) ₃] _n (CH ₂ NO ₃) ₂ CHNO ₃
IMR 80.00% Nitrocellulose 10.00% Nitroglycerine 9.00% Dibutylphthalate 1.00% Diphenylamine		[(C ₆ H ₈) ₅ (NO ₂) ₃] _n (CH ₂ NO ₃) ₂ CHNO ₃
RDX	Cyclotrimethylenetrini- tramine, Hexogen, Cyclonite	C ₃ H ₆ N ₃ (NO ₂) ₃
Single Base Powder	(see E.C. Blank Powder)	
Smokeless Powder Flashless- nonhygroscopic(FNH) Nonhygroscopic(NH)	(see nitrocellulose)	
Sulfur		s
Tetryl	Trinitrophenyl- methylnitramine	$(NO_2)_3C_6H_2N(NO_2)CH_3$
TNT	Trinitrotoluene, Triton, Trotyl, Trilite, Trinol, Tritolo	CH ₃ C ₆ H ₂ (NO ₂) ₃

9. OTHER ENVIRONMENTAL HAZARDS

a. Hazardous, Toxic, and Radiological Waste

 $$\operatorname{\textsc{No}}$ information has been found to indicate that there are potential HTRW sites/sources other than those previously identified by CENAN.

b. Building Demolition/Debris Removal

No information has been found to indicate that there are potential BD/DR sites other than those previously identified by CENAN.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX A

REFERENCE SOURCES

REFERENCE SOURCES The following organizations and personnel are acknowledged for their support				
The following organization	Name	Telephone	Nature of Support	
FEDERAL AGENCIES DEPARTMENT OF DEFENSE	GOVERNMENT SO			
Defense Technical Information Center (DTIC) and Secure STINET 8725 John J. Kingman Rd., Suite 0944 Fort Belvoir, VA 22060-6218	Computer Search	(703) 427-8274 (703) 767-8228	No site-specific information	
Department of Defense Explosives Safety Board Historical Accident Database 2461 Eisenhower Ave. Alexandria, VA 22331	Computer Search (DDESB)	(703) 325-1369	No site-specific information	
National Imagery and Mapping Agency Attn: ISDFR 4600 Sangamore Road Bethesda, MD 20816	Mr. Bill Harris	DSN 287-2495	No site-specific information	
ARMY				
754th Ordnance Company (EOD) Building 289 Fort Monmouth, NJ 07703	SFC Cremeans	(908) 532-7055	No site-specific information	
HQ, US Army Corps of Engineers, Office of History Humphreys Engineer Center ATTN: CEHO-ZA 7701 Telegraph Road Alexandria, VA 22310	Contractor	(703) 428-6554	See Appendix B, Section II, Parts A & B	
IOC Historical Office AMSIO-EAH Bldg. 390 Rock Island, IL 61299	Mr. Tom Slattery	(309) 794-1450	Not staffed to do research. Referred to NARA, Washington, DC	

REFERENCE SOURCES				
	zations and personnel a			
Organization	Name	Telephone	Nature of Support	
ARMY (continued)				
MANSCEN Library 597 Engineer Loop Bldg. 3202, Suite 200 Fort Leonard Wood, MO 65473-8928	Ms. Joyce Waybright	(573) 563-4109 DSN 676-4109	Chemical publications, no site specific information	
Rock Island Arsenal Museum Attn: SIORI-CFS-M Bldg. 60 Rock Island, Il 61299-5000	Ms. Chris Leinicke	COM: (309) 782-5021 FAX: (309) 782-3598	Not staffed to do research	
U.S. Army Center of Military History 103 Third Ave Fort McNair Washington, DC 20319-5058	Contractor	(202) 685-2733 DSN: 325-2733	See Appendix B, Section II, Parts A & B	
U.S. Army Military History Institute Archives Branch Carlisle Barracks Carlisle, PA 17013-5008	Mr. David Keough	(717) 245-3189	No site-specific information	
U.S. Army Military History Institute Reference Library 22 Ashburn Drive Carlisle Barracks Carlisle, PA 17013-5008	Ms. Louise Frend	(717) 245-3611 Extension 3103	No site-specific information	
U.S. Army Military History Institute Photo Archives Branch Carlisle Barracks Carlisle, PA 17013-5008	Mr. Mike Winey	(717) 245-3434	No site-specific information	

REFERENCE SOURCES				
	zations and personnel			
Organization	Name	Telephone	Nature of Support	
ARMY (continued)	GOVERNMENT SO	DURCES		
U.S. Army Ordnance Museum Aberdeen Blvd. Aberdeen Proving Ground, MD 21005-5201	Dr. Atwater	(410) 278-3602	No site-specific information	
U.S. Army SBCCOM Attn: AMSSB-SCI-H 5232 Fleming Road Aberdeen PG, MD 21010-5423	Ms. Kathleen Ciolfi	(410) 679-4430 DSN 584-4430	Review of SBCCOM former site listings. No site-specific information	
USACE New York District 26 Jakob K. Javits Federal Bldg. Room 2007 New York, NY 10278	Mr. Gordon Orlow Mr. James Hill Ms. Noreen Dresser	(212) 264-6238 (212) 264-0143	Maps and real estate documents	
USACE New York District 26 Jakob K. Javits Federal Bldg. Room 2007 New York, NY 10278	Mr. Constancio Labeste	(212) 264-0255	Real estate documents	
AIR FORCE				
Air Force Historical Research Agency Information Systems Division 600 Chennault Circle Bldg. 1405 Maxwell AFB, Al 36112-6424	Ms. Sheila Roten (IRIS) Ms. Essie Roberts (IRIS microfiche)	(334) 953-6884 (334) 953-2439 DSN: 493-xxxx FAX: (334) 953-7428	No site-specific information	
305 CES/EOD Maguire AFB, NJ 08641	TSGT Paul Dries	(609) 724-2205	No site-specific information	

The following organi	REFERENCE SOU		an Abada awasan
Organization	zations and personnel . Name	Telephone	
Organizacion	GOVERNMENT SO		Nature of Support
	OUTHER DO		
AIR FORCE (continued)			
Air Force Historical Research Agency, Research Division 600 Chennault Circle, Bldg. 1405 Maxwell AFB, Al 36112-6424	Ms. Ann Web Mr. Joe Caver	(334) 953-2395 Ext. 5834	Numerous Historical Documents
Air Force Air University Library 600 Chennault Circle, Bldg. 1405 Maxwell AFB, AL 36112-6424	Reference Services	(334) 953-2888 DSN 493-28888	No site-specific information
NAVY			
Marine Corps Historical Center Washington Navy Yard 901 M St., SE Washington, DC 20374-5040	Contractor	(202) 433-3447 DSN 288-3447	See Appendix B, Section II Parts A & B
Naval Construction Battalion Center (NCBC) NAVFAC Historian Office CB Logistics Center, Code 09 (Bldg.99) 4111 San Pedro St. Port Hueneme, CA 93043	Dr. Vince Transano Ms. Carol Marsh	(805) 982-5913 (805) 982-5563 DSN: 551-XXXX	No site-specific information
Naval construction Battalion Center (NCBC) Technical Information Center Attn: Code 72 1100 23 rd Ave Port Hueneme, CA 93043-4370	Mr. Brian Thompson	(805) 982-1124 DSN 551-1124	No site-specific information

	REFERENCE S	OURCES	
		. are acknowledged fo	
Organization	Name	Telephone	Nature of Support
	GOVERNMENT S	SOURCES	
NAVY (continued)			
Naval Construction Battalion Center (NCBC) Officer in Charge Naval Facilities Engineering Command Detachment CB Logistics Center Code 462 (Bldg. 1443) 4111 San Pedro Street Port Hueneme, CA 93043-4410	Ms. Mona Leon- Guerrero	(805) 982-3057 DSN: 551-xxxx	No site-specific information
Naval Historical Center Washington Navy Yard Navy Department Library 901 M St. SE Washington, DC 20374-5060	Contractor	(202) 433-4132 DSN: 288-xxx	See Appendix B, Section II, Parts A & B
Naval Historical Center Washington Navy Yard Naval Aviation History Branch 901 M St. SE Washington, DC 20374-5060	Contractor	(202) 433-4407 DSN: 288-xxxx	See Appendix B, Section II, Parts A & B
Naval Historical Center Washington Navy Yard Operational Archives 901 M St. SE Washington, DC 20374-5060	Contractor	(202) 433-4407 DSN: 288-XXXX	See Appendix B, Section II, Parts A & B
U.S. Naval War College Archives 686 Cushing Rd. Newport, RI 02841-1207	Dr. Evelyn Cherpack	(401) 841-2435	No site-specific information
U.S. Naval War College Library 686 Cushing Rd. Newport, RI 02841-1207	Ms. Alice Juda Ms. Maggie Rauch	(401) 841-4551	No site-specific information

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	REFERENCE SO		
The following organiza			
Organization	Name	Telephone	Nature of Support
NAVY (continued)	GOVERNMENT SO	DURCES	
U.S. Naval War College Museum 686 Cushing Rd. Newport, RI 02841-1207	Mr. Tony Nicolosi Mr. Bob Cembrola	(401) 841-4052	No site-specific information
NATIONAL ARCHIVES AND RECORDS ADMINIST	RATION (NARA)		
NARA-Northeast Region (New York City) 201 Varick St., 12 th Floor New York, NY 10014	Mr. John Celardo	(212) 337-1300	See Appendix B, Section III, Parts A&B
NARA - Archives I (Old Military & Civil Textual Branch) Pennsylvania Ave & 7 th St. NW Washington, DC 20408	Contractor	(202) 208-1903 (202) 219-6273 (202) 208-0370	See Appendix B, Section II, Parts A & B
Archives II (Cartographic and Architectural Branch) 8601 Adelphi Road College Park, Md 20740	Contractor	(301) 713-7040	See Appendix B, Section II, Parts A & B
Archives II (Motion Picture, Sound, and Video Branch) 8601 Adelphi Road College Park, Md 20740	Contractor	(202) 713-7060	See Appendix B, Section II, Parts A & B
Archives II (Still Picture Branch) 8601 Adelphi Road College Park, Md 20740	Contractor	(301) 713-6660	See Appendix B, Section II, Parts A & B
Archives II (Textual Reference Branch) 8601 Adelphi Road College Park, MD 20740	Contractor	(301) 713-7250	See Appendix B, Section II, Parts A & B

	REFERENCE S	OURCES		
The following organizations and personnel are acknowledged for their support				
Organization	Name	Telephone	Nature of Support	
	GOVERNMENT S	SOURCES		
NATIONAL ARCHIVES AND RECORDS ADMINIS	TRATION (NARA) (cont	inued)		
National Personnel Records Center (Military Personnel Records) 9700 Page Ave. St. Louis, MO 63132	Mr. Wilson Sullivan	(314)538-4085	See Appendix B, Section III, Parts A & B	
Washington National Records Center 4205 Suitland Road Suitland, MD 20746-8001	Contractor	(301) 457-7190	See Appendix B, Section II, Parts A & B	
LIBRARY OF CONGRESS				
Library of Congress Prints and Photographs Division 101 Independence Ave SE Washington, DC 20536	Contractor	(202) 707-5000	See Appendix B, Section II, Parts A & B	
Library of Congress Geography and Map Division 101 Independence Ave SE Washington, DC 20540-4650	Contractor	(202) 707-5000	See Appendix B, Section II, Parts A & B	
DEPARTMENT OF AGRICULTURE				
Consolidate Farm Service Agency 209 East Main Street Riverhead, NY 11901	Ms. Sue Bruno	(516) 727-2732	Aerial photos from 1969 to 1994	
Natural Resource Conservation Service 300 Center Drive, Room N210 River County Center Riverhead, NY 11901	Ms. Liz Podlaski	(516) 727-2315	Soil survey for Suffolk County and aerial photos	

	REFERENCE SO	URCES		
The following organizations and personnel are acknowledged for their support				
Organization	Name	Telephone	Nature of Support	
	GOVERNMENT SO	OURCES		
DEPARTMENT OF COMMERCE				
NOAA National Climatic Data Center, Federal Bldg 151 Patton Ave, Room 120 Asheville, NC 28801-5501	Mr. Sam McCowan Ms. Yolanda Goosch	(704) 271-4272	Climatic Data	
DEPARTMENT OF THE INTERIOR				
U.S. Geological Survey Denver Federal Center P.O. Box 25286 Denver, CO 80225	Customer Service Mr. Tony Benger (NIMA)	(303) 202-4200 (703) 264-3001 Fax: 3133	Topographic Maps	
STATE				
New York Natural Heritage Program Department of Environmental Conservation 700 Troy-Schenectady Rd. Latham, NY 12110-2400	Ms. Betty Ketcham	(518) 783-3932 Fax: 3916	Information on rare or state-listed animals and plants species occurring on site	
New York State Archives and Records Administration 11th Floor Cultural Education Center Albany, NY 12230	Unnamed Spokesperson	(518) 8955	No site-specific information. Provided referral to local library.	
New York State Office of Parks, Recreation, and Historic Preservation Historic Preservation Field Services Bureau Peebles Island, P.O. Box 189 Waterford, NY 12188	Ms. Mark Peckham Ms. Cynthia Blakemore	(518) 237-8643	Information on historical, cultural and archaeological resources	

REFERENCE SOURCES				
The following organiz				
Organization	Name	Telephone	Nature of Support	
	GOVERNMENT SO	OURCES		
STATE (continued)				
Montauk Point State Park 50 South Fairview Avenue Montauk, New York	Mr. Tom Dess Mr. Frank Silipo Mr. James Schneidmuller	(516) 668-3781	Historical documents and interview information. See interviews I-1 thru I-3	
New York State Park Service P.O. Box 247 Babylon, NY 11702	Edward Powers	(516) 669-2500	See Interview I-18	
LOCAL				
East Hampton Assessor Office 300 Pantigo Place East Hampton, NY 11937	Staff	(516) 324-4187	Provided plat map and current ownership information	
East Hampton Police Department 300 Pantigo Place East Hampton, NY 11937	LT John Claflin	(516) 324-0024	<pre>Incident Information and Referrals (See interview I-9)</pre>	
Suffolk County Police Department 30 Yaphank Avenue Yaphank, NY 11980	Chief	(516) 852-6308	Referral	
Suffolk County Police Department Emergency Services Division 2173 Smithtown Avenue Ronkonkoma, NY 11779	SGT Bruce Peyton	(516) 669-2500	See Interview I-19	
Suffolk County Sheriff's Department 100 Center Drive Road Waterford, NY 12188-1089	Chief Deputy Frank Jenkins	(516) 852-2211	Site information and referrals	

	REFERENCE SO			
The following organizations and personnel are acknowledged for their support				
Organization	Name	Telephone	Nature of Support	
	NON-GOVERNMENT	SOURCES		
National				
Coast Defense Study Group, Inc. 1560 Somerville Rd. Bel Air, MD 21015	Publication		No site-specific information	
Council on America's Military Past 518 W Why Worry Lane Phoenix, AZ 85021	Heliogram Publication	(800) 396-4693	No site-specific information	
On-line Computer Library Center & First Search 6565 Franz Road Dublin, OH 43017-3395	Computer Search	(800) 848-5878	No site-specific information	
Scientific & Technical Information Library System Defense Ammunition Center John L. Byrd, Jr. Technical Library Attn: SIOAC-ESM 1C Tree Road McAlester, OK 74501-9002	Computer Search	(918) 420-8772 (918) 420-8771 DSN 956-XXXX	No site-specific information	
LOCAL				
Suffolk County Historical Society 300 West Main Street Riverhead, NY 11901-2894	Mr. Wally Broege	(518) 727-2961	Historical documents and photographs	
East Hampton Free Library 159 Main Street East Hampton, NY 11937	Ms. Dorothy King	(516) 324-0024	Historical documents	
Montauk Historical Society Montauk Highway Montauk, New York 11954	Staff	(516) 668-5340	Referrals	

REFERENCE SOURCES				
The following organizations and personnel are acknowledged for their support				
Organization	Name	Telephone	Nature of Support	
	NON-GOVERNMENT S	SOURCES		
SITE RELATED PERSONNEL				
Local Veteran P.O. Box 258 Wainscott, NY 11975	Mr. Antonio Ganga	(516) 537-3950	See interview I-4	
Local Resident 171 Newton Lane East Hampton, NY 11937	Mr. Trevor Kelsall	(516) 324-1556	See interview I-5	
Local Resident 84 Meadow Way East Hampton, NY 11937	Mr. George Campbell	(516) 324-1217	See interview I-6	
Local Resident 96 Bluff Road Amagansett, NY 11930	Mr. Joseph Disunno	(516) 267-3311	See interview I-7	
Local Resident 91 Accabonac Road East Hampton, NY 11937	Mr. Anthony Cangiolosi	(516) 324-4019	See interview I-8	
Local Resident S. Fairview Avenue Montauk, NY 11954	Mr. Robert Tuma	(516) 668-2357	See interview I-10	
Local Resident Fairlawn Drive Montauk, NY 11954	Mr. Frank Tuma	(516) 668-2830	See interview I-11	
Local Resident 83 Davis Drive Montauk, NY 11954	Mr. Ken Jacob	(516) 668-3525	See interview I-12	
Local Resident 83 Davis Drive Montauk, NY 11954	Mr. Eugene Beckwith	(516) 668-4807	See interview I-13	

REFERENCE SOURCES The following organizations and personnel are acknowledged for their support			
Organization	Name	Telephone	Nature of Support
	NON-GOVERNMENT S	SOURCES	
SITE RELATED PERSONNEL (continued)			
Local Resident Signal Hill Montauk, NY 11954	Mr. Don Foley	(516) 668-5776	See interview I-14
Local Resident Gates Avenue Montauk, NY 11954	Mr. John DeSousa	(516) 668-3992	See interview I-15
Camp Hero Veteran 1940 E. Long Street Carson City, NV 89706	Mr. Jeffrey Repsher	(775) 887-1262	See interview I-16
WWII Fort H.G. Wright Veteran P.O. Box 1343 Charleston, RI 02813	Mr. Edward Hill	(401) 364-3353	See interview I-17
Fort Hancock Veteran P.O. Box 222 Massapequa, NY 11758	Mr. Donald Cox	(516) 537-3950	See Interview I-20

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ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX B

REFERENCES AND ABSTRACTS

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Section II: National Capitol Region Archives Search Reference

Part A: Positive Findings Part B: Negative Findings

SECTION III: Regional National Archive Findings

Part A: Positive Findings Part B: Negative Findings

APPENDIX B

SECTION I: BIBLIOGRAPHY

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 The Final Era, U.S. Naval Institute Proceedings, January, 1968 (F-13).
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- B-62. ENG Form 836, U.S. Army Corps of Engineers, New York District, Chief, Real Estate Division, 6 January 1956, subject: Real Property Management and Disposal Report, USACE New York District, Real Estate Records (G-3).
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 Administration to Montauk Beach Company, 25 May 1966, subject:
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 Easement Under Tracts 31E, 32E, and 33E, USACE New York
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- B-120. Newsday, "Feeling Trapped at Camp Hero", 20 August 1989 (H-39).
- B-121. Newsday, "Montauk-The War Years", July/August 1995 (H-40).
- B-122. Newsday, "Navy Explodes Bomb from Bay", 21 August 1995 (H-41).
- B-123. The New York Times, "Saving Birds While Endangering Himself", 12 July 1998 (H-42).
- B-124. The New York Times, "State Plan for Camp Hero Assailed", 2 January 2000 (H-43).
- B-125. 1949 Photograph of a 16-Inch Gun Being Dismantled at Camp Hero (K-1).
- B-126. 1950's historical photo set consisting of .50 caliber firing, 2.36-inch rocket firing, and a firing control station; all taken to/from the southern bluff's of Camp Hero. The firing control station is no longer present, probably due to extensive bluff erosion since that time (K-2).
- B-127. 1958 Photograph of Two Height Finder and Two Surveillance Radar Assemblies at the Air Force Portion of Camp Hero (Montauk Air Force Station) (K-3).
- B-128. 1959 Photograph of the Air Force Portion of Camp Hero. The construction of the AN/FPS-35 Radar Building is visible in the back round (K-4).
- B-129. 1998 Photograph of the AN/FPS-35 Radar Building at the Former Camp Hero Air Force Portion (Montauk Air Force Station) (K-5).
- B-130. Aerial Photograph, 1999, Former Camp Hero Lands (K-6).
- B-131. Map, U.S. Army Corps of Engineers, New York District, 29 October 1941, "Property Survey and General Map", USACE New York District, Real Estate Records (L-1).
- B-132. Map, U.S. Army Corps of Engineers, New York District, 12 December 1942, "Harbor Defenses of Long Island Sound, Troop Housing, General Layout Plan, Camp Hero, Montauk PT., L.I., New York", USACE New York District, Real Estate Records (L-2).

- B-133. Map, War Department, Office of the Chief of Engineers, August 1946, "Final Project Map, Real Estate, Ditch Plain, East Hampton, New York", USACE New York District, Real Estate Records (L-3).
- B-134. Map, War Department, Office of the Chief of Engineers, February 1947, "Final Project Map, Real Estate, Camp Hero Military Reservation, Sheet 1", USACE New York District, Real Estate Records (L-4).
- B-135. Map, War Department, Office of the Chief of Engineers, February 1947, "Final Project Map, Real Estate, Camp Hero Military Reservation, Sheet 2", USACE New York District, Real Estate Records (L-4).
- B-136. Map, War Department, Office of the Chief of Engineers, July 1947, "Project Ownership Map, Real Estate, Montauk Point Military Reservation, USACE New York District, Real Estate Records (L-5).
- B-137. Map, War Department, Office of the Chief of Engineers, February 1948, "Project Ownership Map, Hither Hills Fire Control Station", USACE New York District, Real Estate Records (L-6).
- B-138. Map, War Department, Office of the Chief of Engineers, February 1948, "Project Ownership Map, Amagansett Fire Control Station", USACE New York District, Real Estate Records (L-7).
- B-139. Map, War Department, Office of the Chief of Engineers, February 1948, "Project Ownership Map, East Hampton Fire Control Station", USACE New York District, Real Estate Records (L-8).
- B-140. Map, U.S. Army Corps of Engineers, New York District circa 1984, "Final Project Ownership Map, Real Estate, Montauk Air Force Station (Z-45), New York Military Reservation", USACE New York District, Real Estate Records (L-9).
- B-141. Historical Map Reproduction, Montauk Historical Society, unknown date, "Field Map of the Encampment of Colonel Theodore Roosevelt and the Rough Riders at Camp Wikoff, Montauk, Long Island, New York from 15 August 1898 through 15 September 1898", East Hampton Library, East Hampton, New York (L-10).

- B-142. Maritime Map, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Coast and Geodetic Survey, dated 18 September 1993, "United States East Coast, Block Island Sound, Map #13205, LORAN-C Overprinted".
- B-143. Memorandum, U.S. Army Corps of Engineers, Washington, D.C., 15 March 1994, subject: Defense Environmental Restoration Program Site Eligibility Policy Clarification for Ordnance and Explosive Waste at Formerly Used Defense Sites (F-18).

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CAMP HERO, NY

Also Researched Under: Long Island Sound Harbor Defenses; Long Island Harbor Defenses; Montauk Point, NY; Long Island, NY; Montauk Air Force Station; Battery Dunn; Batteries 112 and 113; and Montauk Aircraft Control and Warning Station.

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Also Researched Under: Long Island Sound Harbor Defenses; Long Island Harbor Defenses; Montauk Point, NY; Long Island, NY; Montauk Air Force Station; Battery Dunn; Batteries 112 and 113; and Montauk Aircraft Control and Warning Station.

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WW II Posts, Camps, and Stations

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Sanborn Map Collection
US Department of the Interior, Geological Surveys

LIBRARY OF CONGRESS - PRINTS AND PHOTOGRAPHS DIVISION WASHINGTON, DC

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RG 30 (Records of the Bureau of Public Roads)

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RG 92 (Records of the Office of the Quartermaster General)

RG 111 (Records of the Office of the Chief Signal Officer)

RG 156 (Records of the Office of the Chief of Ordnance)
RG 165 (Records of the War Department General and Special Staffs)

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Military Reservations Volume, 1941

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Accession 52 - 0017

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Accession 56 - 0398

Accession 56 - 0417

Accession 62 - 1477

Accession 63 - 1540

Accession 63 - 1551

Accession 64 - 2125

Accession 65 - 3184

Accession 66 - 3183

Accession 68 - 1925

Accession 69 - 2583

Accession 70 - 1100

Accession 70 - 1101

Accession 70 - 1102

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Accession 70 - 1119

Accession 71 -2966

Accession 71 - 2967

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Accession 72 - 4032

Accession 72 - 4035

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Accession 75 - 0041

Accession 73 - 0042

Accession 73 -0050

Accession 74 - 0028

SECTION III REGIONAL NATIONAL ARCHIVES FINDINGS PART A POSITIVE FINDINGS

CAMP HERO

NARA, NORTHEAST REGION NEW YORK, NY

RG 77, Records of the Office of the Chief Engineers
Accession #62A505
Box # 596360
Map, Real Estate, Camp Hero, Feb 1947
Memo, Subject: Disposal of Real Estate-Camp Hero,
31 Mar 1960, w/indorsements
Memo, Subject: Transfer of tracts, Camp Hero, New York to
the Department of Air Force, 5 April 1960
Memo, Subject: Disposal of Camp Hero, Montauk Point, Long
Island, New York-Congressional Clearance, 20 Oct 1960,
W/indorsements

SECTION III REGIONAL NATIONAL ARCHIVES FINDINGS PART B NEGATIVE FINDINGS

CAMP HERO

NARA, NORTHEAST REGION NEW YORK, NY

- RG 18, Records of the Army Air Forces
 All Entries
 Nothing Found
- RG 92, Records of the Office of the Quartermaster General All Entries
 Nothing Found
- RG 96, Records of the Farmers Home Administration All Entries Nothing Found
- RG 103, Records of the Farm Credit Administration All Entries
 Nothing Found
- RG 111, Records of the Office of the Chief Signal Officer All Entries Nothing Found
- RG 121, Records of the Public Buildings Service All Entries Nothing Found
- RG 156, Records of the Office of the Chief of Ordnance All Entries Nothing Found
- RG 165, Records of the War Department General and Special Staffs All Entries Nothing Found
- RG 175, Records of the Chemical Warfare Service All Entries Nothing Found

- RG 269, General Records of the General Services Administration All Entries Nothing Found
- RG 270, Records of the War Assets Administration All Entries Nothing Found
- RG 338, Records of U.S. Army Commands
 All Entries
 Nothing Found
- RG 342, Records of the U.S. Air Force Commands, Activities
 And Organizations
 All Entries
 Nothing Found
- RG 392, Records of the U.S. Army Coast Artillery Districts and Defenses, 1901-1942
 Entry 28, box 1, Entry 30, box 1, Entry 152 thru 156B, box 1
 Nothing Found

NARA, NATIONAL PERSONNEL RECORDS CENTER ST. LOUIS, MO

All Entries Nothing Found ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX C

GLOSSARY

APPENDIX C

GLOSSARY

AA Antiaircraft

AAA Antiaircraft Artillery

AD Air Division

ACWS Aircraft Control and Warning Squadron

ASR Archives Search Report

BD/DR Building Demolition/Debris Removal
CAIS Chemical Agent Identification Set
CEHNC Corps of Engineers, Huntsville Center

CEMVR Corps of Engineers, Mississippi Valley Division,

Rock Island District

CENAN Corps of Engineers, New York District

CWM Chemical Warfare Material DA Department of the Army

DERP Defense Environmental Restoration Program

DOD Department of Defense

DOI Department of the Interior

EE/CA Engineering Estimate and Cost Analysis

EPA Environmental Protection Agency
EOD Explosive Ordnance Disposal

FC Fire Control

FDE Findings and Determination of Eligibility

FUDS Formerly Used Defense Site(s)
GSA General Services Administration

HTRW Hazardous, Toxic and Radiological Waste

HTW Hazardous and Toxic Waste
INPR Inventory Project Report
IRA Interim Removal Action

LT Lieutenant

M Model

MAFS Montauk Air Force Station

MK/MOD Mark/Model MM Millimeter

NARA National Archives Records Administration

NDAI No DOD Action Indicated

NOAA National Oceanic and Atmospheric Administration

NYADS New York Air Defense Sector OE Ordnance and Explosives

PAE Preliminary Assessment of Eligibility

PN Project Number

RAC Risk Assessment Code

RG Record Group

SAGE Semi-Automatic Ground Environment

SCS Soil Conservation Service

SEAL Sea, Air, and Land SI Site Inspection

SFC Sergeant First Class

SGT Sergeant

SSG Staff Sergeant

TCRA Time Critical Removal Action USACE U.S. Army Corps of Engineers

USADAC U.S. Army Defense Ammunition Center

USATCES U.S. Army Technical Center for Explosives Safety

UXO Unexploded Ordnance

WD War Department

ORDNANCE AND EXPLOSIVES
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APPENDIX D

TEXTS/MANUALS

APPENDIX D

TEXT/MANUALS

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- D-1. Text/Illustration of 37mm, 40mm, 90mm, 120mm, 6-Inch, and 16-Inch Projectiles (B-11, B-12, and B-13).
- D-2. Text/Illustration of 20-Pound Fragmentation Bombs (B-14).
- D-3. Text/Illustration of Small Arms Ammunition (B-13).
- D-4. Text/Illustration of 6-Inch and 16-Inch Guns and Mounts (B-15).
- D-5. Text/Illustration of 2.36-Inch and 3.5-Inch Rockets (B- 16 and B-17).
- D-6. Seacoast Artillery and Antiaircraft Artillery Symbols and Markings (B-18).
- D-7. Text/Illustration of Radio Controlled Airplane Targets (B-19).
- D-8. Text/Illustration of Chemical Agent Identification Sets (B-20).

ARTILLERY AMMUNITION

The canister, high-explosive, and drill rounds are packed 1 round per fiber container, 20 containers (20 rounds) per unlined wooden box.

The armor-piercing, armor-piercing capped, and target-practice rounds are packed in two ways:

- 1. 1 round per fiber container, 20 containers (20 rounds) per unlined wooden box.
 - 2. 20 rounds per metal-lined wooden box.

Packing information on the old type blank ammunition for tank and antitank guns is not available at this time. The new type is packed in a chest containing 10 Adapters M2; 100, 10-gage blank cartridges; and 1 ramrod. Subsequent shipments of 25 to a carton, 20 cartons (500 cartridges) to a wooden box.

AMMUNITION FOR 37-MM AUTOMATIC GUN M1A2 (ANTIAIR-CRAFT).

General.

Weapon. With the advent of aviation as a major factor in combat, it became necessary to develop a light, mobile, automatic antiaircraft weapon that would fire an explosive projectile. First, the 37-mm Automatic Gun M1A1, and later, the M1A2 were adopted to serve this purpose. The M1A2 is a fully automatic weapon. It is loaded automatically from a clip carrying 10 rounds. A cartridge case with an extracting groove in the base is required for ejection by the automatic extractor mechanism of the gun. The gun is mounted on a 4-wheeled trailer carriage capable of being towed 50 miles per hour on good roads. Antitank as well as antiaircraft firing is possible with this weapon.

Types of ammunition. There are three types of rounds used in the M1A2 antiaircraft gun:

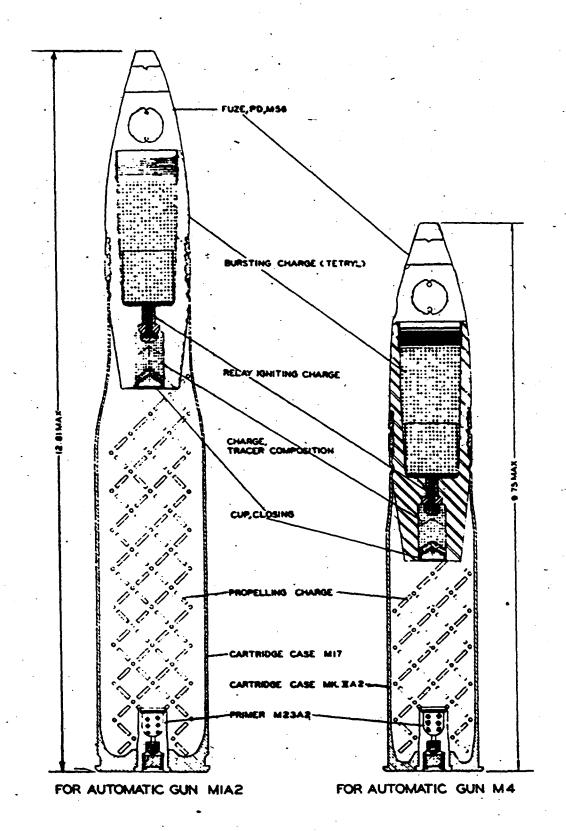
• Types	Filler
High-explosive	 Tetryl
Armor-piercing	 None
Practice	 None

Cartridge cases. The Cartridge Case M17 is made of cartridge brass, and is the same size and shape as the M16 used in the 37-mm tank and antitank guns (page 345). The only difference in the two cases is that the M16 has an extracting flange while the M17 has an extracting groove located just above the head of the cartridge case.

The Cartridge Case M17B1 is "Substitute Standard." Except for being made of steel and having a slightly thinner head and primer seat, it is exactly the same as the M17 Cartridge Case.

Primer. The M23A2, 20-grain, Percussion Primer is "Standard" for all 37-mm antiaircraft ammunition. Some rounds may be found primed with M23A1 Primer (primers, page 331).

AMMUNITION INSPECTION GUIDE



RA PD 22924

Figure 138 — SHELL, H.E., M54. for 37-mm Guns M1A2 and M4 $\sim 10^{-1}$

ARTILLERY AMMUNITION

SHELL, Fixed, H.E., M54 w/S.D. TRACER.

Complete round. The burst of the M54 High-explosive Shell is one of the best means known by the Army to discourage attack by enemy aircraft. The combination of a tetryl loaded shell and supersensitive fuze spells destruction for light material targets such as planes. The same projectile is used in the M4 (Aircraft) Gun against planes.

Cartridge Cases. The M17 Case is "Standard," the M17B1 is "Substitute Standard" (cartridge cases, page 353).

Primer. The M23A2 is "Standard." Some rounds on hand may be primed with the M23A1 (primers, page 331).

Propelling charge. A muzzle velocity of 2,600 feet per second is imparted to the projectile by 6 ounces of FNH powder.

Projectile. The Projectile M54, as fired, weighs 1.34 pounds and is about 5.9 inches long. It is the same projectile as the M54 fired from the M4 Aircraft Gun. The projectile consists of three components: the body with its bursting charge; the Point-detonating Fuze M56; and the shell-destroying tracer.

The body is machined from bar steel and is 4.13 inches long. Only 2.32 inches of the body itself protrudes from the cartridge case. The base of the projectile is very thick (over 1½ inches) and is tapered for streamlining purposes. The cavity for the shell-destroying tracer is machined into this heavy base. The bursting charge of 0.10 pound of tetryl is pressed into the body in two increments: a base pellet and a main charge.

The shell-destroying tracer assembly consists of a quantity of tracer composition, an ignited charge, a celluloid closing cup, a relay igniting charge and a relay pellet. The tracer charge is held in place by a celluloid cup sealed with adhesive compound. The celluloid cup transfers the flame from the propellant to the igniter charge of 20 grains of igniter composition. The igniter fires the red tracer composition which weighs 90 grains. When the tracer composition is almost completely burned, it initiates the relay igniting charge of 1.68 grains of black powder contained in a steel housing which screws into the tracer cavity just below the tetryl base pellet. This relay igniter carries the flame to the relay pellet of 23 grains of black powder which covers the entire base of the bursting charge cavity. The relay pellet is sufficient to effectively detonate the tetryl base pellet of the bursting charge, and finally the main bursting charge itself.

The maximum vertical range of the high-explosive shell is 6,200 yards and the maximum horizontal range is 8,875 yards. The tracer compound, however, burns out and ignites the black powder relay pellet after approximately 3,500 yards of vertical travel or 4,000 yards of horizontal travel, so the shell is destroyed before it reaches its maximum limit. This eliminates the possibility of the shell's

AMMUNITION INSPECTION GUIDE

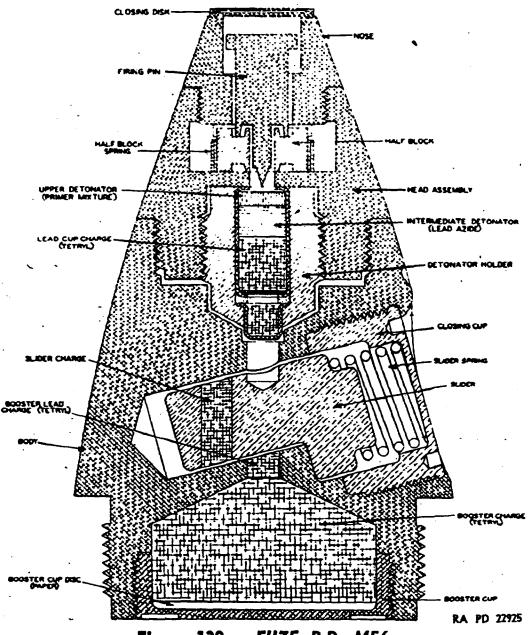


Figure 139 — FUZE, P.D., M56

falling to the ground, detonating, and causing casualties among friendly troops.

FUZE, point-detonating, M56. Since the High-explosive Round M54 is required to function on impact with light materials such as those used in planes, a supersensitive fuze is needed. A supersensitive fuze is one which will detonate on very slight impact such as with a double thickness of airplane fabric. The M56 is both supersensitive and superquick because the firing pin is protected only by a very thin aluminum closing cup and rests, at the time of impact, right on the detonator which initiates an almost uninterrupted train of detonating explosives.

The body of the fuze is divided into three parts; the body loading assembly, the head assembly, and cap. The booster of tetryl is

ARTILLERY AMMUNITION

pressed into a cavity in the lower part of the body, and is held in place by an aluminum closing cup which screws into the base of the fuze. The body loading assembly also contains an eccentrically weighted slider. The slider incorporates a charge of tetryl and is held in place, with its charge out of line with the rest of the explosive train, by a spring backed up by a cup-shaped brass retaining screw which assembles into the side of the fuze body. The detonator assembly consists of a brass detonator holder, which screws into the body loading assembly; a detonator of priming mixture, lead azide and tetryl, and a lead charge of tetryl. Semicircular, brass half blocks held together by a flat steel spring sit loosely in a cavity in the head assembly which screws over the detonator holder and into the body loading assembly. These half blocks have beveled notches which seat a rim on the firing pin. The firing pin fits into a cap closed with a very light aluminum cup. The cap containing the firing pin screws into the head assembly. All of the parts just described except the slider, the detonator holder, and the half blocks and their spring, are made of aluminum alloy.

The function of the fuze begins when the projectile has cleared the muzzle of the weapon and centrifugal force comes into play. The velocity with which the projectile rotates as it leaves the gun causes the eccentrically weighted slider to compress its spring and bring its tetryl charge into line with the explosive train. At the same time, the half blocks spread outward against their spring and the firing pin rides up the beveled notches. As the half blocks spread a sufficient distance apart, the firing pin comes gradually down between them and rests on the light aluminum closing disc of the detonator. When the projectile contacts the material of the target, the light aluminum closing cup in the cap is pushed in, and forces the firing pin into the priming mixture. The priming mixture initiates the explosive train of detonator, lead azide and tetryl, lead charge of tetryl, slider charge of tetryl, tetryl booster, and bursting charge of tetryl. These explosives are arranged in a practically uninterrupted train which gives the fuze superquick action.

Identification. The complete round of M54, H.E. Shell can be identified for the Antiaircraft Gun M1A2 by the extracting groove in the cartridge case. The presence of the M56 Fuze identifies the round as H.E. M54. The only other 37-mm round for the M1A2 Gun that has a fuze is the practice round. The fuze for the practice shell is a dummy made of cast aluminum. The M54 is painted olive drab and stenciled in yellow. The complete round is 12.81 inches long and weighs 2.62 pounds.

SHELL, Fixed, Practice, M55A1 w/TRACER.

Complete round. This round was designed to simulate the M54, H.E. Shell for practice firing.

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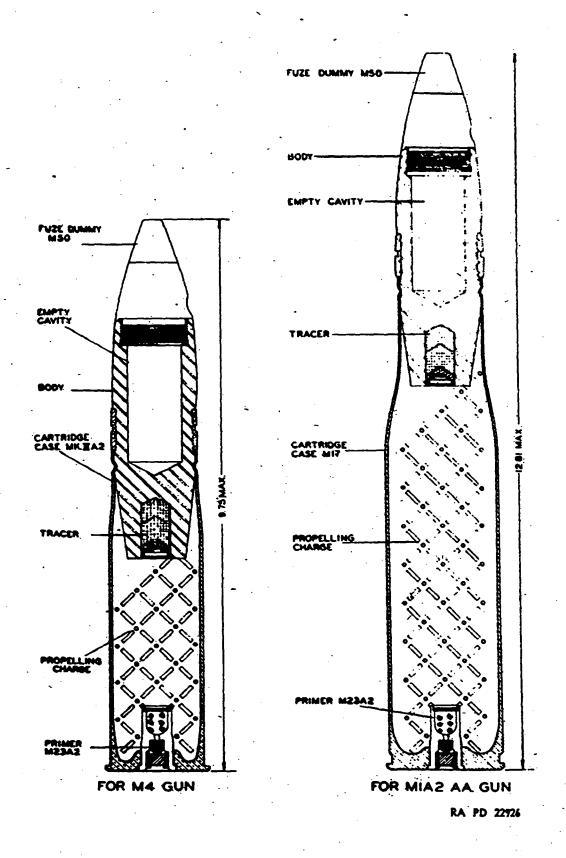


Figure 140 — SHELL, Practice, M55A1, for 37-mm Guns M4 and M1A2

ARTILLERY AMMUNITION

Cartridge cases. M17 is "Standard," M17B1 is "Substitute Standard" (cartridge cases, page 353).

Primer. M23A2, 20-grain, Percussion Primer is "Standard." Some rounds may be found primed with M23A1 Primer (primers, page 331).

Propelling charge. The propelling charge consists of 6 ounces of FNH powder.

Projectile. The projectile is of the same length, weight, and contour as the H.E. Shell M54 (page 355). It is made up of three parts.

The body has no filler, but is made to the same size and weight as the high-explosive M54. A tracer cavity is machined into the base. Of course, since no filler is used, the tracer does not have shell-destroying qualities.

The tracer consists of red tracer composition and igniting compound closed into the tracer cavity with a celluloid cup which is sealed with adhesive compound.

The FUZE, dummy, M50, is entirely inert and is made in one piece of cast aluminum. It is of the same size, shape, and weight as the M56 Fuze.

Identification. The complete round can be identified for the M1A2, 37-mm Antiaircraft Gun by its size and the extracting groove in the cartridge case. Aside from the blue painting and white stenciling on the projectile, it may be distinguished as the Practice Round M55A1 by the Dummy Fuze M50. The complete round measures 12.81 inches in length and weighs 2.62 pounds.

SHOT, Fixed, A.P.C., M59 w/TRACER.

Complete round. This round is "Standard" for use against any type of armor plate. It is very similar to the SHOT, APC, M51, used in the 37-mm Antitank and Tank Guns M3, M3A1, M5, and M6. The main differences are in the cartridge cases and in the fact that the M59 Shot does not have a windshield to extend the ogive.

Cartridge cases. M17 is "Standard," M17B1 is "Substitute Standard" (cartridge cases, page 353).

Primer. M23A2, 20-grain, Percussion Primer is "Standard." Some rounds on hand may incorporate the M23A1 Primer (primers, page 331).

Propelling charge. A propelling charge of 0.31 pounds of FNH powder gives the projectile a muzzle velocity of 2,050 feet per second.

Projectile. Aside from the following differences, the projectile is the same as the SHOT, APC, M51, used in the Tank and Antitank Guns M3, M3A1, M5, and M6 (page 349).

The chambering of the Antiaircraft Gun M1A2 does not permit the use of a windshield.

AMMUNITION INSPECTION GUIDE

The M59 Antiaircraft Round contains more tracer composition in the base (enough to burn 3,500 yards) than does the M51 Antitank Round.

The M59 Projectile is a trifle lighter than the M51.

Identification. The complete round may be identified for the antiaircraft group by the size and extracting groove of the cartridge case. The black painting with white stencil and the armor-piercing cap distinguishes it as SHOT, APC, M59. The complete round is 12.76 inches long and weighs 3.12 pounds.

SHOT, Fixed, A.P., M74 w/TRACER.

Complete round. As indicated by the nomenclature, this round does not include an armor-piercing cap. It was designed as "Substitute Standard" for SHOT, APC, M59. It does satisfactory work against homogeneous armor plate, but not against face hardened armor plate.

Cartridge cases. M17 and M17B1 are "Standard" and "Substitute Standard" respectively (cartridge cases, page 353).

Primer. M23A2, 20-grain, Percussion Primer is "Standard." Some rounds may still contain M23A1 Primer (primers, page 331).

Propelling charge. 4 ounces of FNH powder impact a muzzle velocity of 2,050 feet per second to the shot.

Projectile. The projectile is exactly the same as the M74 used for 37-mm Tank and Antitank Guns M5, M6, M3, and M3A1 (page 350).

Identification. The extracting groove on the cartridge case, and size of the round identify it as belonging to 37-mm antiaircraft group. The black painting with white stencil and the stubby nose (ogive radius of 2.205 inches) distinguish it as SHOT, AP, M74. The complete round is 13.01 inches long and weighs 3.07 pounds.

Packing of Ammunition for 37-mm Antiaircraft Gun M1A2. 37-mm antiaircraft ammunition is packed as follows:

The high-explosive and practice rounds are packed in two ways:

- 1. 1 round per fiber container, 25 containers (25 rounds) per wooden box.
 - 2. 20 rounds per metal-lined wooden box.

The armor-piercing, and armor-piercing capped rounds are shipped 1 per fiber container, 25 containers (25 rounds) per wooden box.

AMMUNITION FOR 37-MM AUTOMATIC GUN M4 (AIRCRAFT).

Weapon. With the rapid advancement of aviation, the development of new techniques and purposes for aircraft, and the improvement of aviation armor, it was found necessary to design an aircraft weapon with a high-explosive round. The 37-mm Automatic Gun M4

was the answer to this necessity. It has a standard muzzle velocity of 2,000 feet per second. The ammunition is fed into the gun by a 5-round feeder, by a 15-round articulated-link belt housed in a magazine, or by a 37-mm Endless Belt M6 containing 30 rounds. A peculiarity of the weapon is that while it is automatic, the cartridge cases used with the ammunition have extracting flanges and no grooves.

Types of Ammunition. Types of ammunition used in the aircraft weapon are as follows:

Types	Filler
High-explosive	 Tetryl
Armor-piercing	 None
Practice	 None

Cartridge Cases. The Mk. IIIA2 Cartridge Case is "Standard" for all ammunition used in the Aircraft Gun M4. It is made of cartridge brass and can be distinguished from all other 37-mm cartridge cases by its length (5.69 inches). The extracting mechanism of the weapon requires a cartridge case with a flange.

The Mk. IIIA2B1 Cartridge Case is "Substitute Standard." It differs from the Mk. IIIA2 only in that it is made of steel and has a slightly thinner head and primer seat.

Primer. The M23A2, 20-grain, Percussion Primer is "Standard" for all aircraft rounds. Some rounds may be on hand, primed with the M23A1 Primer.

Propelling Charges. The high-explosive and practice rounds require a propellant of 2.5 ounces of FNH powder. The armor-piercing round requires 2.3 ounces of FNH powder.

SHELL, Fixed, H.E., M54, w/TRACER. The projectile of this round is exactly the same as the M54, H.E., Shell for the Antiaircraft Gun M1A2 (page 355). The only differences in the complete rounds are in the cartridge case and propelling charge. The aircraft shell may be distinguished as such by its shorter cartridge case (5.69 inches) with its extracting flange. The complete round is 9.75 inches long and weighs 1.94 pounds.

SHELL, Fixed, Practice, M55Al, w/TRACER. This round is the same as the M55Al Practice Shell for the Antiaircraft Gun M1A2 except for differences in the cartridge case and propelling charge (page 359). The aircraft round may be distinguished by the length (5.69 inches) and extracting flange of its cartridge case. The complete round is 9.75 inches long and weighs 1.94 pounds.

SHELL, Fixed, Armor-piercing, M80, w/TRACER. The M80 is very similar to the M74 Armor-piercing Shot which is fired from the

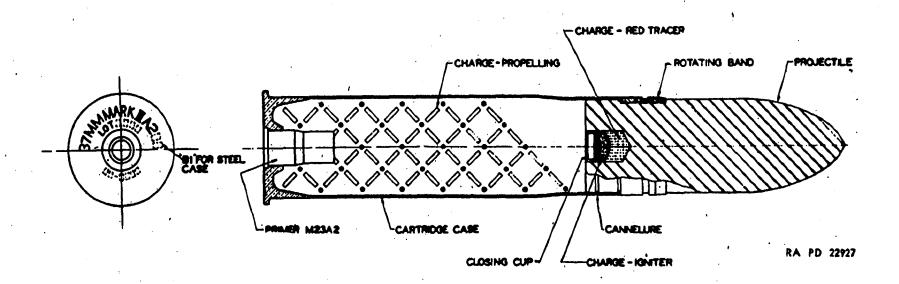


Figure 141 — SHOT, AP, M80, for 37-mm Gun M4

M1A2 antiaircraft gun (page 360). The main differences are in the cartridge case and propelling charge. The two projectiles are of similar construction, but the M80 is lighter in weight. This is accomplished by shortening the projectile. The M80 is 4.23 inches long and weighs 1.66 pounds, while the M74 is 4.84 inches long and weighs 1.92 pounds. The aircraft round also has a slightly greater radius of ogive (2.35 inches as compared to 2.205 inches). The Aircraft Round M80 may be distinguished as 37-mm ammunition by its size, and for the aircraft group by the length (5.69 inches) and flange of its cartridge case. The complete round is 9.34 inches long and weighs 2.25 pounds. The projectile is painted black with white stencil.

Packing of Ammunition for the 37-mm Aircraft Gun M4. This ammunition is packed as follows:

The high-explosive and practice rounds are packed in two ways:

- 1. 1 round per fiber container, 40 containers (40 rounds) per wooden box.
 - 2. 20 rounds per metal-lined wooden box.

The armor-piercing shot is packed 1 round per fiber container, 40 containers (40 rounds) per wooden box.

FURTHER REFERENCES: SNL R-1, Parts 1 and 2; SNL R-5, Parts 1 and 2; Ordnance Drawings; OS 9-20.

Chapter 4

Ammunition for 40-mm Gun M1

GENERAL.

Weapon. The GUN, automatic, 40-mm, M1, is intended for duties intermediate between those of the high-altitude guns of the 3-inch and 90-mm class and the 37-mm antiaircraft weapon. It is very effective against dive bombers and low-flying aerial targets. With the armor-piercing ammunition it may also be effectively used against armored ground targets. Its rate of fire is 120 rounds per minute which is accomplished by feeding the ammunition into the weapon by means of a 4-round changer clip. These rounds may be fired continuously in rapid fire or a single shot at a time.

This weapon is sometimes called the Bofors gun, since it was developed by the Bofors Company of Sweden. It was adopted by the British and then by the United States Ordnance in 1941. The 40-mm M1 or "Bofors" gun is easily recognized by the funnel-shaped flash hider screwed on the forward end of the tube, which protects the gun operators from temporary blinding by the flash.

Class and Types. The 40-mm ammunition is of the fixed class and includes three types: high-explosive, practice, and armor-piercing.

Cartridge Cases.

CASE, cartridge, M25. The M25 Cartridge Case is "Standard" for ammunition of American design. This case is drawn from cartridge brass. It is 12.24 inches long and has a maximum weight of 1.94 pounds. An extracting groove is machined into the head of the case. The feeder mechanism of the M1 Gun requires that an annular groove be cut into the base. A tapered hole is machined through the head for press fitting the M23A2 Primer.

CASE, cartridge, M25B1. This case is "Substitute Standard" for 40-mm, American designed ammunition. Except for a few differences in the propelling charge cavity near the head, a thinner head, and being made of steel, it is the same as the M25 Brass Case. The differences in the head and material make the steel case approximately 0.25 pound lighter than the brass case.

CASE, cartridge, M22A1. The M22A1 is "Standard" for '40-mm ammunition of British design. It was developed from the Mk. I/L Cartridge Case which was redesigned to become the M22. The M22 Case was machined in the head to receive the British Percussion Primer, Mk. II/L/ which was assembled with threads into the cartridge case. The A1 modification of the M22 consisted of changing the head to seat the M23A2 American Primer. The M22A1 Cartridge Case differs only in very minor details from the M25.

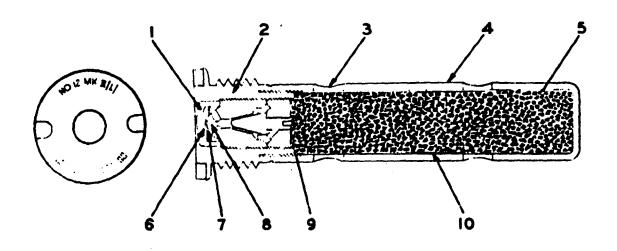
CASE, cartridge, M22A1B1. This case is "Substitute Standard" for 40-mm ammunition of British design. It differs from the M22A1 Brass Case in that the material is steel and the head is thinner. It weighs about 0.25 pound less than the brass case.

Primers.

PRIMER, percussion, 20-grain, M23A2. This primer is "Standard" for use in both American and British designed 40-mm ammunition. The primer and its development are described in the chapter dealing with 37-mm ammunition.

PRIMER, percussion, No. 12, Mk. II/L/. This primer may be found in some old rounds of British design. It is screwed and staked into the head of the old M22 or Mk. I/L/ Cartridge Case. The "L" in British nomenclature stands for land use. The Mk. II Primer consists of two parts, the head and the body.

The brass body contains the primer charge of 64 grains of black powder. It is in the shape of a tube closed at one end and tapped at the open end to receive the threads of the primer head. Several holes are drilled into the body to allow the flame from the primer charge to ignite the propellant. The primer charge is contained in a foiling-oaper wrapping which lines the tube and prevents the powder from



- I. PERCUSSION CUP
- 2. PERCUSSION HEAD
- 3. FLASH HOLE
- 4. PRIMER BODY
- 5. 64 GRAINS ARMY BLACK POWDER

- 6. 1.2 GRAINS TO PRIMER MIXTURE
- 7. ONION SKIN PAPER
- 8. ANVIL
- 9. ONION SKIN PAPER
- 10. FOILING PAPER WRAPPER

RA PD 22928

Figure 142 — PRIMER, Percussion, No. 12, Mk. II/L/

spilling out through the holes. The charge is sealed at the open end with a disc-of onionskin paper.

The primer head has outside threads at the top for screwing into the cartridge case and at the bottom for threading into the body. The primer cup is press-fit into the head from the forward end so as to leave a portion of the cup exposed to the firing pin of the weapon. The primer cup contains a priming mixture weighing 1.2 grains sealed with a paper disc. The anvil is threaded into the head behind the primer cup. A beveled gas-check plug fits loosely into a cavity in the anvil. A plug with a flash vent machined into it, threads into the head behind the anvil.

The function is the same as for the American type of percussion primer. The firing pin of the weapon indents the primer cup which crushes the primer composition against the anvil. The flame from the resulting explosion flashes through the vents and ignites the primer charge. The gas-check plug is pushed down by the gases from the primer composition and pushed up, closing the vent in the anvil, when the primer charge explodes.

CARTRIDGE, H.E.-T(SD), Mk. II.

General. This round was designed for use against aircraft but may also be used against other targets of opportunity. The nomenclature tells much of the story of the projectile since the "HE-T" indicates high-explosive filler with tracer and the "SD" refers to the tracer as shell-destroying. The complete round consists of a fuzed projectile complete with filler and tracer, a propelling charge, and a primed cartridge case.

Cartridge Cases. The M25 Brass Case is "Standard" for rounds of American design; the M25A1 Steel Case is "Substitute Standard." The M22A1 Brass Case is "Standard" with British rounds, the M22A1B1 Steel Case is "Substitute Standard."

Propelling Charge. A muzzle velocity of 2,960 feet per second is imparted to the projectile by 10.4 ounces of FNH smokeless powder poured loosely into the cartridge case.

Primer. The M23A2, 20-grain, Percussion Primer is "Standard" for all 40-mm rounds. PRIMER, percussion, No. 12, Mk. II/L/, may be found in some old rounds of British design.

Projectile. The Mk. II High-explosive Projectile is made up of a metal parts assembly, a filler, a shell-destroying tracer, and a point-detonating fuze. The projectile, loaded and fuzed, is a little over 7 inches long, the length varying slightly for different fuzes.

Metal parts assembly. This assembly consists of the shell body and the rotating band. The body is completely hollow. The cavity at the

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ARTILLERY AMMUNITION DELLING CHARGE

Figure 143 — Alternate Assemblies of Cartridge, H.E.-T (SD) 40-mm, Mk. II, T/L/

rear of the body is shaped and threaded to take the Tracer Igniter No. 12, Mk. I/L/. The nose end of the filler cavity is threaded to take Point-detonating Fuzes No. 251, Mk. 27 or M64A1. A knurled or ribbed recess 0.642 inch wide is machined into the body 1.745 inches above the base to receive a copper rotating band. A cannelure is cut into the shell about 0.5 inch behind the rotating band to receive the cartridge case crimps. The ogive of the projectile is tapered rather than curved. The taper is 7 degrees 15 minutes. The base is also cylindrically tapered to an angle of 7 degrees 45 minutes.

7 1

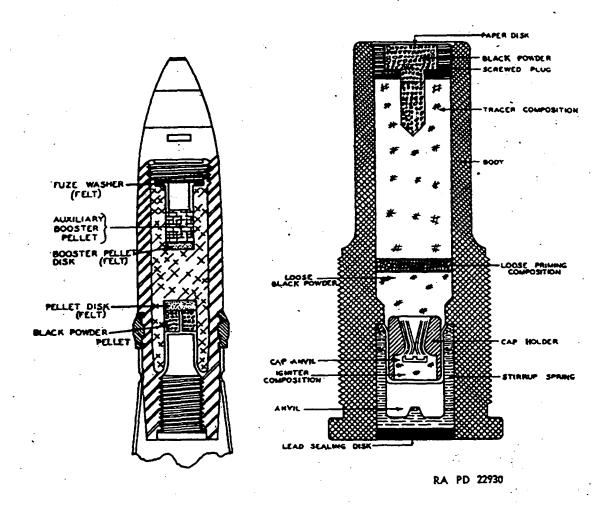


Figure 144 — Tracer and Igniter, Shell No. 12, Mk. I/L/

Filler. The filler consists of 0.15 pound of TNT and 0.005 pound of black powder in the form of a pellet with a hole in the center. The filler of the American projectile is drilled out at the top to accommodate the booster of the fuze. This drilling leaves the fuze booster surrounded by TNT. The British filler is drilled deeper at the nose to accommodate an auxiliary booster pellet of tetryl. A cavity is also drilled into the TNT at the bottom leaving a surround. A felt disc fits into the top of this cavity. The black powder pellet is inserted behind this disc and is held in place by the tracer igniter assembly.

Tracer assembly. The proper nomenclature for the tracer assembly is "Tracer and Igniter, Shell, No. 12, Mk. I/L/ Internal," the British designation. The assembly is contained in a steel shell which threads into the base of the projectile so that only a paper disc separates the T-shaped relay igniter charge of loose black powder from the black powder pellet in the bursting charge. This relay igniter is surrounded by tracer composition which extends rearward to a layer of priming composition. Between the priming composition and the cap holder

which fits inside a stirrup spring is loose black powder. The cap holder assembly includes a cap anvil which fits over a vent leading to the loose black powder and igniter composition placed between the anvil and the stirrup spring. The stirrup spring rests on the shoulders of a cylindrically shaped anvil which is closed at the bottom. A protrusion in the bottom of the anvil acts much the same as a firing pin. The tracer and igniter assembly is sealed at the base with a lead sealing disc.

The function of the tracer and igniter assembly begins when the projectile starts down the bore of the weapon. Set-back action causes the cap holder to move rearward and straighten out the stirrup spring which has retained it. The action carries the cap and stirrup spring onto the firing pin-like projection in the center of the anvil and crushes the igniting composition against the cap anvil. The flame from the resulting explosion fires the loose black powder which in turn ignites the priming composition. The back pressure from this loose black powder forces the mechanisms behind it out of the igniter body. The priming composition ignites the tracer composition. When the tracer composition has burned for approximately 7 seconds, it ignites the black powder relay igniter which carries the flame to the black powder pellet in the bursting charge and results in the destruction of the projectile.

There are three fuzes listed as standard for issue and manufacture for use with the Mk. II Projectile: the British FUZE, percussion, D.A., No. 251, Mk. I/L/, the Navy FUZE, P.D., Mk. 27, and the Army FUZE, P.D., M64A1.

FUZE, Percussion, D.A., No. 251, Mk, I/L/.

Description. The "D.A." in the nomenclature of this fuze is British for "direct action" which means about the same as the Army Ordnance term "superquick." The body of the fuze is made in three parts. The lower part is threaded on the outside for screwing into the nose of the Mk. II Projectile and is threaded on the inside to receive a relay assembly containing a charge of 2.3 grains of tetryl and a booster cup containing a tetryl pellet weighing 109.69 grains. A lead washer fits around the bottom of the protrusion on the relay holder. A thin brass cylinder fits over the upper end of the relay holder. Four tiny lugs at the top of this cylinder are bent over the rounded shoulder on the relay holder. Four tiny lugs at the bottom of the cylinder are bent out and up to retain a heavier brass arming sleeve. The arming sleeve is of sufficient length to protrude above the relay holder and retain two centrifugal blocks. These blocks form a positive separation between the relay charge and the detonating elements of the fuze making it boresafe. The detonator assembly fits in through the top of the lower part of the body and rests on the centrifugal blocks. The detonator charge consists of 0.93 grain of

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CLOSING DISK-

Figure 145 — FUZE, Percussion, D.A., No. 251, Mk. I/L/

lead azide over 0.15 grain of tetryl. A brass washer in two parts fits around the detonator holder just above the shoulder. This washer is backed up by a spring which is compressed and held in place by a retaining screw. The lower portion of the body is threaded on the outside at the top so that the second body part, the head, may be screwed over it.

The head is threaded on the inside at the rear to receive the firing pin sleeve and the primer assembly. The primer holder screws into the head behind the firing pin sleeve. The primer charge of priming mixture weighs 1.9 grains and should be inserted into the primer holder so that the colored side is visible. A small hole in the firing pin holder seats a steel ball which engages the shoulder of the firing pin and keeps it from contacting the primer during shipment and handling. A sleeve, flanged at the top, fits around the firing pin holder and keeps the steel ball in place. A compressed spring fits around this sleeve and is held in place by the flange. A thin brass cylinder similar to that in the lower portion of the fuze has its upper lugs bent over the shoulder of the flange on the firing pin holder sleeve and keeps the spring from forcing it outward. The brass cylinder is in turn held down by an arming sleeve fitting into the lower lugs which are bent outward and upward. A small pin fitting into a slot in the arming sleeve insures proper movement. The arming sleeve cannot move outward because it engages a shoulder in the third portion of the body, the cap.

The cap is threaded on the inside at the bottom and screws over the head. It retains a nail-shaped, plastic firing pin striker. The lower end of the striker fits into the firing pin-holder just over the firing pin. The cap is closed at the top with a thin metal disc.

Function. When the weapon is fired and the projectile starts down the bore of the weapon, set-back causes two actions to occur simultaneously. The arming sleeve around the centrifugal blocks and the relay assembly is forced rearward dragging the lugs of the thin brass cylinder off the shoulder of the relay assembly. The shock of this action is taken up by the lead washer which acts as a cushion. At the same time, the arming sleeve in the head of the fuze moves rearward and drags the lugs of the thin brass cylinder off the shoulders of the flange on the arming pin holder sleeve. As this flange is released, the spring forces the firing pin holder sleeve outward into the fuze cap. The steel ball then falls out of the firing pin holder and the firing pin moves inward and rests on the primer. Set-back action also causes the centrifugal blocks to be held more firmly in place.

As the projectile leaves the bore of the gun it has acquired a high rotational velocity. The resulting centrifugal force causes the centrifugal blocks, which are between the relay holder and the detonator holder, to move out into the recess in the lower body. When this

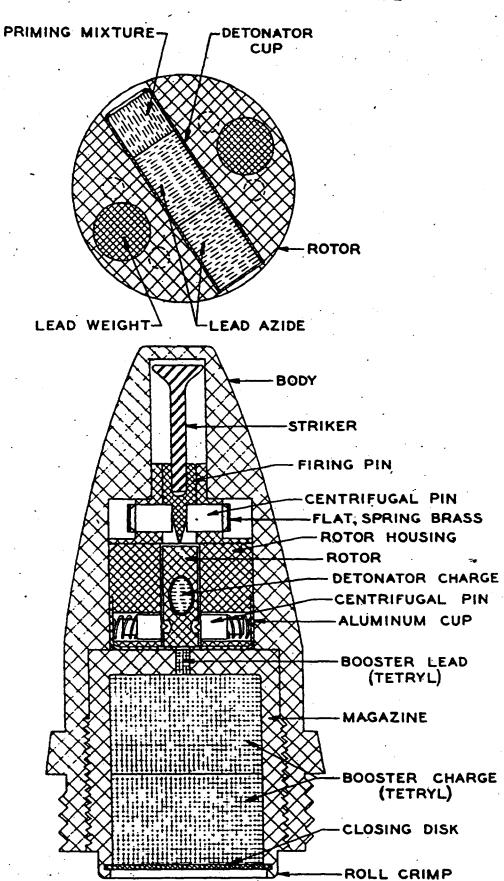


Figure 146 — FUZE, P.D., Mk. 27 (Navy)

occurs, the spring behind the detonator holder forces it rearward to close the space formerly occupied by the centrifugal blocks and bring the detonator charge immediately over the relay charge. The 2-sectioned washer around the detonator holder spreads into a recess in the lower body when the holder has moved sufficiently rearward. This locks the detonator firmly in place.

Impact with the target forces the thin metal disc and the nail-shaped firing pin striker inward. As the force is transmitted to the firing pin, it penetrates the primer. The resulting explosion functions the remainder of the explosive train consisting of the detonator charge of lead azide and tetryl, the relay of tetryl, the booster of tetryl, and finally the TNT bursting charge of the projectile.

FUZE, P.D., Mk. 27 (Navy).

Description. The body of the Mk. 27 Fuze is die-cast in one piece from aluminum-base alloy. It is threaded on the outside at the base to screw into the Mk. II or Mk. I High-explosive Projectiles and on the inside to receive a magazine or booster cup. The nose of the body is closed by leaving a thickness of 0.04 inch of the metal as a cover during casting.

A small cavity in the nose of the fuze seats a nail-shaped plastic firing pin striker. The lower part of the striker fits into the head of the firing pin which is cup-shaped. The firing pin holder is made in three diameters. The upper part with the smaller diameter fits into the striker cavity. The part of intermediate diameter is drilled transversely to seat two centrifugal pins which, in the unarmed position, prevent the firing pin from contacting the rotor detonator. A strip of spring brass is wrapped around this intermediate part and must be spread by the centrifugal pins before the firing pin is released. The part of largest diameter fits the larger cavity in the fuze and provides room for the centrifugal pins to spread.

The firing pin assembly is held in place by the rotor assembly which is fitted in behind it. The rotor housing is a solid cylinder of aluminum-base alloy. A rectangular cavity is cut into the center and goes completely through the length of the housing. The purpose of this cavity is to house the rotor. A hole is drilled completely through the housing at right angles to the rotor cavity. Centrifugal pins are inserted into this hole on either side of the rotor and are backed up by small springs. Small nipples on the end of the pins engage recesses in the rotor. The pins and springs are held in place by a thin aluminum cup which fits over the lower half of the housing. The aluminum cup has a flash hole in the center of the bottom.

The rotor is a flat circular disc with a hole drilled through its diameter to seat the detonator consisting of 0.03 gram of priming mixture over two pellets of lead azide, each weighing 0.054 gram.

Two lead weights are pressed into the rotor at opposite ends of a diameter which is at right angles with the detonator cavity. Recesses are machined into the rotor on each side to receive the nipples of the centrifugal arming pins.

The magazine is cup-shaped with heavy walls and bottom. It screws into the fuze body behind the rotor assembly so that only a small part is left protruding at the rear. A hole is drilled through the bottom of the cup to seat a booster lead charge of 0.020 gram of tetryl. The booster charge is made up of 5.40 grams of tetryl divided into two equal pellets. The open end of the magazine is closed with a disc held in place by a 360-degree crimp.

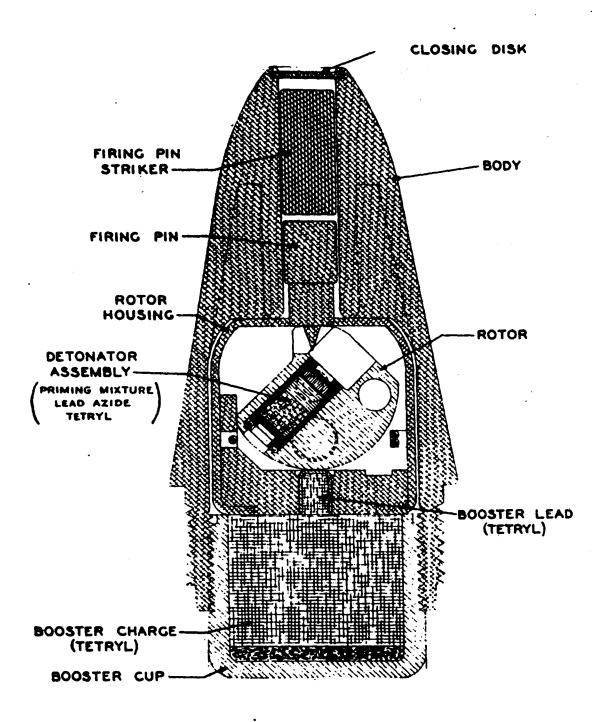
Function. The function of the Mk. 27 Fuze begins as it leaves the bore of the weapon. Centrifugal force causes both sets of centrifugal pins to move against their springs. The firing pin, thus released, moves inward and rests on the rotor. The rotor, which is then also free to move, alines its detonator with the firing pin because of the effect of centrifugal force upon the lead weights.

Impact with the target forces the firing pin into the priming composition. The resulting explosion initiates the remainder of the explosive train consisting of lead azide detonator, tetryl lead, booster of tetryl and the bursting charge of the Mk. II or Mk. I High-explosive Projectile.

FUZE, P.D. M64A1.

Description. The M64A1 Fuze body is a single piece, die-cast from an aluminum-base alloy. The body is threaded externally and internally at the base; the external threads screw into the nose of the Mk. II Projectile and the booster cup screws into the internal threads. A pellet of 112 grains of tetryl is contained in the booster.

The rotor assembly fits into a cavity ahead of the booster. The rotor housing, which is also a die-cast aluminum-base alloy is enclosed by a brass sleeve which fits snugly into the body cavity. The housing is in the shape of a solid cylindrical block with a rectangular cavity cut across its diameter to house the rotor. This cavity does not extend the full length of the block. Two holes are bored completely through the housing at right angles to the rectangular cavity. The upper hole is to seat two pins upon which the rotor pivots. These pins fit into circular recesses in the side of the rotor and are staked into place. The lower hole seats centrifugal pins on either side which also fits into circular recesses in the side of the rotor and hold it in position with the detonator out of line with the firing pin. A groove is cut around the circumference of the housing so that it passes through the centrifugal pinholes. A length of spring wire is wound around this groove and retains the centrifugal pins. Between 10,000 and 20,000 revolutions per minute are required for the centrifugal pins to



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Figure 147 — FUZE, P.D., M64A1

D-1

spread this wire sufficiently to free the rotor. A hole is drilled through the bottom of the housing to the rotor cavity. A copper cup containing a booster lead charge of 1.67 grains of tetryl fits into this hole.

The brass rotor is centrifugally weighted and in the unarmed position holds its detonator of 0.72 grain of priming mixture, 2.39 grains of lead azide, and 1.08 grains of tetryl out of line with the firing pin. Since the detonator is thus physically separated from the booster charge, the fuze is regarded as boresafe. A notch is cut into the top of the rotor from the detonator cavity outward. The point of the firing pin rides this notch while the rotor is in the unarmed position.

The firing pin is made of aluminum alloy and fits into a small cavity in the nose of the fuze. A solid cylindrically shaped firing pin striker made of molded plastic fits into the cavity above the firing pin. The fuze body may be closed at the nose by leaving a thin thickness of the metal as a cover during casting, or by a closing disc.

A1 modifications. The M64A1 Fuze differs from the M64 in the following respects:

The firing pin striker in the M64 is nail-shaped. The M64A1 is a solid cylinder.

The firing pin of the M64 is hollowed out at the head to receive the end of the striker. The firing pin of the M64A1 has a head that contacts the full diameter of the striker.

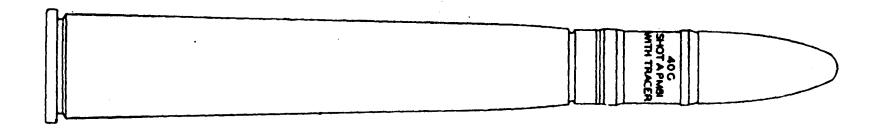
In the M64 Fuzes, the rotor housing is contained directly in the fuze body. The base is threaded for screwing into the fuze body. The rotor housing for the M64A1 Fuze is contained in a brass sleeve which fits into the fuze body and the base is not threaded. It is held in place by the booster which is screwed in behind it.

There are other details of manufacture which differ in the two fuzes, but the fundamental differences are those outlined above.

Function. The function of the fuze begins as rotational velocity is imparted to it. Centrifugal force causes the centrifugal pins to move outward, spread the spring wire and free the rotor. The rotor, being eccentrically weighted, rights itself and brings the detonator into position so that the firing pin rests on the detonator just above the priming mixture.

Impact with the target crushes the nose of the fuze and forces the firing pin striker and firing pin inward. When the firing pin penetrates the detonator, the priming mixture explodes and initiates the remainder of the explosive train consisting of the detonator of lead azide and tetryl, the booster lead charge of tetryl, the tetryl booster, and finally the TNT bursting charge of the Mk. II Projectile.

Identification. The complete round is approximately 17.64 inches long and weighs about 4.64 pounds. The length and weight vary



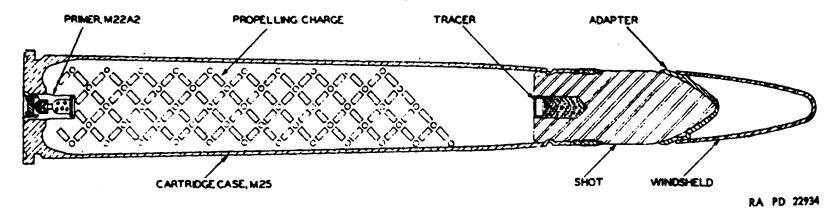


Figure 148 — Cartridge, AP-T, 40-mm, M81

slightly with the assembly of different fuzes. The No. 251, D.A., fuze may be recognized by the fact that its body is made up of three parts fitted together with threads. The M64A1 and Mk. 27 are similar in outward appearance but the nomenclature "Mk. 27" is stamped into the body of the Navy fuze. The Mk. 27 also has two notches cut into the body 180 degrees apart to fit a wrench. The Army projectile is painted olive drab and stenciled in yellow. The Navy system of painting is different.

CARTRIDGE, TP-T, T1.

This round was designed to simulate the 40-mm H.E. rounds for target practice. All components except the projectile and fuze are the same as those used in the service round. The projectile is inert except for a tracer in the base and is painted blue with white stencil to indicate practice use. The fuze used is the Dummy M69. This round is standard for issue only.

CARTRIDGE, AP-T, M81.

This complete round was designed for use against armored targets. It is peculiar as an armor-piercing projectile in that it has a wind-shield but no armor-piercing cap. The M81 is of American design and is standard for issue and manufacture.

Cartridge Cases. The M25 Case is "Standard"; the M25B1 Case is "Substitute Standard."

Propelling Charge. The propelling charge consists of 10.4 ounces of FNH powder held loosely in the cartridge case.

Primer. The M23A2, 20-grain, Percussion Primer is a standard component of the M81 Round. This primer is described in the chapter on 37-mm ammunition.

Projectile. The body of the projectile is machined from bar steel and is hardened to produce armor-piercing qualities. The ogive has a small radius and is continued to a point. A recess for a copper rotating band and a cannelure to receive the cartridge case crimps are machined into the body. The projectile is streamlined by the addition of a windshield which has a rounded nose. The windshield is soldered to a sheet metal adapter which is soldered and crimped to the nose of the body. A cavity is machined into the base of the body to receive the tracer assembly.

The tracer assembly is made up of tracer composition, igniting composition, and a clear celluloid cup. The cup is cemented and press-fit into the base of the projectile.

Identification. The complete round of the M81 Cartridge is 17.62 inches long and weighs 4.535 pounds. It is easily recognized by its

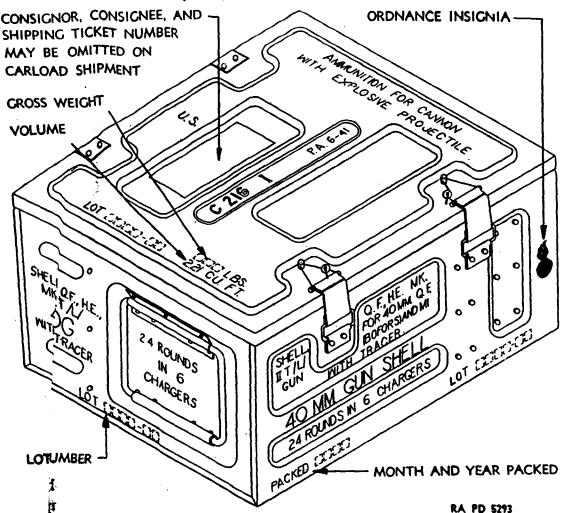


Figure 149 — Metal Packing Box for 40-mm Ammunition

sand the windshield and windshield adapter. Since it is inert, it idented black and stenciled in white.

TRIDGE, AP-T, M81A1.

formation on the A1 modification of the M81 is not available at time. Both the M81 and M81A1 Rounds are listed as standard issue and manufacture.

HER SERVICE ROUNDS.

omplete rounds listed in SNL P-5 which are not discussed above on which no detailed information is available at this time, are ollows:

RTRIDGE, H.E., Mk. I (Navy), w/FUZE, P.D. Mk. 27

RTRIDGE, H.E. Mk. I, L & P

RTRIDGE, H.E. Mk. II, L & P

te term "L & P", in the above nomenclature is an abbreviation "loaded and plugged."

PACKING.

CARTRIDGES, H.E.-T (SD), Mk. II; TP-T, T1; AP-T, M81 and AP-T, M81A1 may be packed either 1 round per fiber container, 24 containers (24 rounds) per box or 4 rounds per charger clip, 6 clips (24 rounds) per metal box. When CARTRIDGE, H.E.-T (SD), Mk. II, is fuzed with the Mk. 27 Navy Fuze, it may also be packed 4 rounds per charger clip, 4 clips (16 rounds) per metal box.

CARTRIDGES, H.E., Mk. I, L & P, and H.E., Mk. II, L & P, are packed 1 round per fiber container, 24 containers (24 rounds) per box.

CARTRIDGE, H.E., Mk. I (Navy), is packed 4 rounds per charger clip, 4 clips (16 rounds) per metal box.

FURTHER REFERENCES. OS 9-20; SNL P-5; SNL R-1; Ordnance Drawings.

Chapter 5

Ammunition for 57-mm Guns

GENERAL.

Weapons. The 57-mm Gun M1 is adapted from the British 2.24-inch (6-pounder)Gun Mk. III which has been successfully employed as an antitank weapon. The American gun differs in several respects from the British gun, but the same ammunition may be fired from either weapon. The gun is mounted on a split-trail carriage with rubber-tired wheels for high-speed transport, and is provided with armor-plate shields. The carriage is designed for 1-man control of elevating, traversing, and firing. The M1 Gun was known as the T2 Gun before standardization.

Class and Types. The 57-mm ammunition is of the fixed class. There are only two types of ammunition provided: the armor-piercing and the practice.

Cartridge Cases.

Case, cartridge, M23A2. This case, made of cartridge brass, is "Standard" for all rounds of 57-mm ammunition. The case is very long (17.40 in.), being approximately three-quarters the length of the complete round. It is provided with an extraction flange 0.20 inch thick. A primer seat to receive the M1B1A2 primer is machined into the head. The weight of the M23A2 Cartridge case is 3.9 pounds.

Case, cartridge, M23A2B1. As indicated by the B1 designation in the nomenclature, this case is made of steel. It is "Substitute Standard" for 57-mm ammunition. It differs from the M23A2 in that

by cutting down a regular service cartridge case. The charge in each type is black powder, but each type uses a different weight charge. The standard for all purposes except firing salutes of international courtesy is a 6-ounce charge. A charge of 6.9 ounces, called a single pellet charge, is provided for use in lieu of the 6-ounce charge. A charge of 1 pound is provided for firing salutes of international courtesy, with a 13.8-ounce double pellet for use as an alternate.

Each round of blank ammunition is packed in an individual fiber container, and 10 rounds are packed in a wooden packing box.

In general, Blank Ammunition M10 for the 3-inch field gun is similar to the blank rounds discussed in connection with the 3-inch AA ammunition.

FURTHER REFERENCES: Complete Round Chart No. 5981; OS 9-20; OS 9-18; TR 1360-3A, 1370-A; OS 9-48.

Chapter 9

Ammunition for 90-mm Guns

GENERAL.

One of the most effective AA weapons used by the various arms today, is the 90-mm Gun M1. It is fired from a self-propelled mount as well as from the more common mobile mount. The self-propelled mount is used as a tank destroyer, and is moved about on half or full tracks by its own power. The mobile mount which can be used against tanks and aircraft is a towed carriage.

Types of ammunition provided for the 90-mm Gun M1 are:

High-explosive

Projectile, A.P.C.

Shot, A.P.

Practice

Drill

Fuzes. All fuzes used with complete rounds of 90-mm ammunition have been previously discussed.

P.D., M48, and M48A1, selective, time and super quick—Fully discussed with 75-mm gun ammunition.

B.D., M68—Identical in all respects to the FUZE, B.D., M66A1, discussed with 75-mm gun ammunition, except for the fact that the body of the M68 is larger.

Mechanical Time M43 (all modifications)—Fully discussed in the chapter dealing with 3-inch AA ammunition.

Boosters. All boosters are of the M20-series (M20, M20A1, etc.).

Cartridge Case. The case used on all 90-mm ammunition is the M19 or M19B1 (steel). This case is usually of drawn brass, and is about 23% inches long. The case has an extracting flange on the head which acts to stop the round when it is loaded into the weapon, and also to eject the case after firing. The metal near the mouth of the case is comparatively thin and soft, so that the pressure of the propelling charge gases expands it tightly against the walls of the chamber, thus preventing the leakage of any gases past the cartridge case.

Propelling Charge. The propellent charge for 90-mm ammunition consists of approximately 7 pounds of NH smokeless powder poured loosely in the cartridge case.

Primer. The primer used in all complete rounds is the M28-series of 300-grain percussion type of cannon primer.

SHELL, FIXED, PRACTICE, M58.

General. This complete round was originally developed as the High-explosive Round M58. Due to the thin body walls, prematures resulted. As a result, the filler was washed out and a substitute filler of sand and a black powder spotting charge was substituted. The round, thus, has been designated a practice round.

Projectile. The projectile is of steel construction. It is streamlined, with a boat-tail base. The fuze continues the exterior streamline of the projectile. The shell has a steel base plate welded to its base.

Components. A complete round of M58 Practice Ammunition consists of the following: An M58 Projectile with 2.11 pounds of inert filler and 0.56 pound black powder spotting charge in pellet form; an M20 Booster and an M43A2 Fuze; and an M19 Cartridge Case with a propellent charge of NH smokeless powder.

Guns. This complete round is fired from all models of the M1 Guns.

SHELL, FIXED, H.E., M71.

General. The M71 Shell was developed to replace the M58. The walls are made thicker to overcome the prematuring factor. In all other respects (outwardly) the shell is identical to the M58.

Projectile. The M71 Shell is streamlined, with a boat-tail base and a steel base plate. The fuze continues the streamline of the projectile. It is of forged steel construction.

Components. The filler for this round is 2.04 pounds of cast TNT, which is detonated by the M20A1 Booster used in conjunction with the M43-series mechanical time fuze for AA work, and the P.D. M48 or M48A1 for firing against ground targets. The loaded and fuzed projectile is assembled to an M19 Cartridge Case containing approxi-

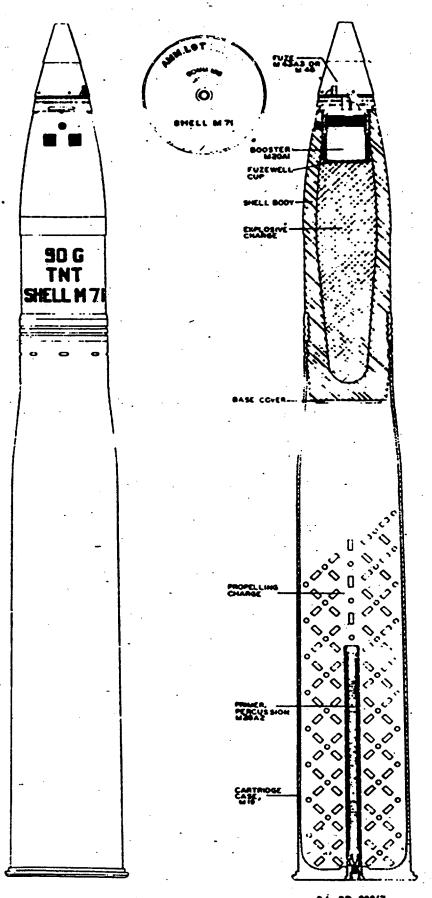
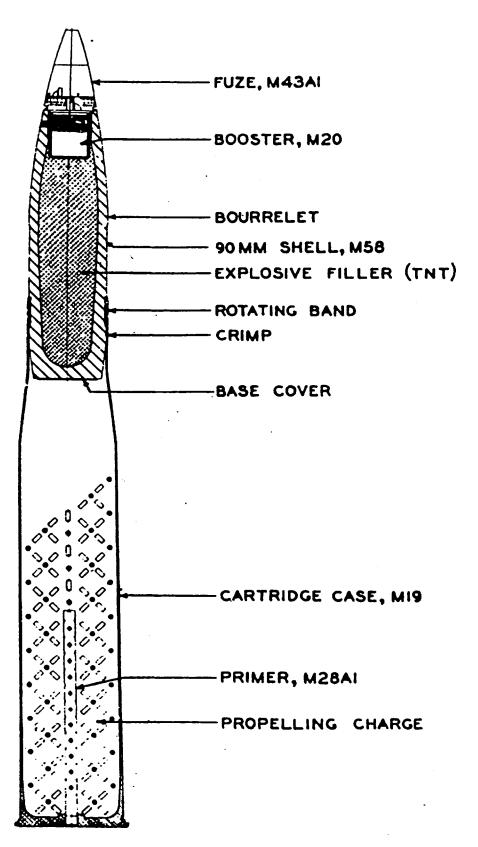
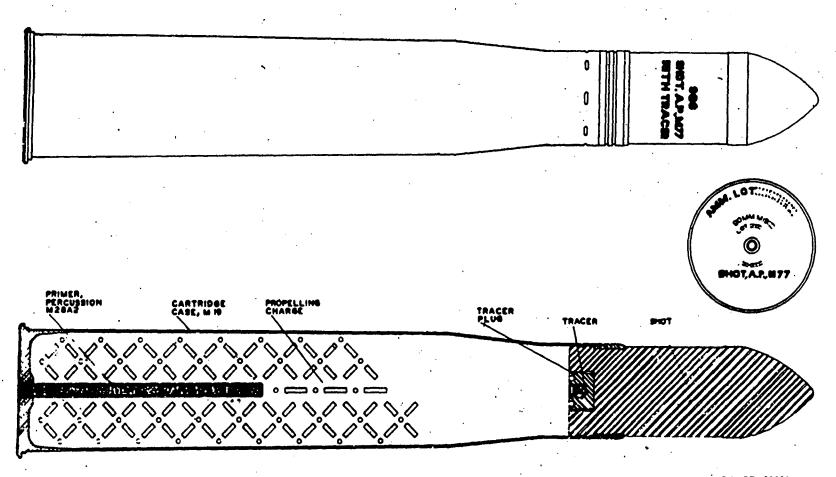


Figure 184 — SHELL, H.E., 90-mm, M71



RA PD 22968

Figure 185 — SHELL, H.E., 90-mm, M58 D-1



RA PD 22969

Figure 186 — SHOT, A.P., 90-mm, M77

mately 7 pounds of loose NH smokeless powder and an M28A1 or A2 Primer.

Gun. This round is fired from the 90-mm AA or AT Gun M1.

SHELL, FIXED, H.E., M58 (AMMANOL).

General. This round of ammunition was developed largely for testing purposes. It is identical in every way to the SHELL, H.E., M71, except for filler which consists of TNT, ammonium nitrate, and flaked aluminum. The aluminum gives a brilliant flash when the shell functions, and produces an incendiary effect against inflammable targets.

SHOT, FIXED, A.P., M77.

General. As the 90-mm Gun M1 can be used either against aircraft or tanks, the ammunition is adapted to both targets. The Shot M77 is provided for antitank use.

Projectile. The projectile consists of a heat-treated solid steel shot with no provision made for booster or fuze.

Components. The complete round consists of a SHOT, A.P., M77, firmly attached to an M19 Cartridge Case containing NH smokeless powder (approx. 7 lb) and an M28A1 or A2 Primer.

Gun. The 90-mm Gun M1 fires this round against tanks.

PROJECTILE, FIXED, A.P.C., M82.

General. This round is the more effective of the two armorpiercing rounds provided for the 90-mm gun when used against tanks.

Projectile. This round is the same as other A.P.C. rounds previously discussed, in that it has the heat-treated solid steel shot with an A.P. cap sweated on, and a false ogive or windshield screwed to this cap. Provisions are made for an explosive filler and base-detonating fuze.

Components. The complete round consists of the A.P.C. Projectile M82, with an explosive D filler and a B.D. Fuze M68. The M68 is similar to the B.D. M66, the only difference being in size. The M68 is larger than the M66. The fuze has a tracer composition in a boat-tail shaped portion that protrudes from the base of the projectile. The loaded and fuzed projectile is firmly crimped to the M19 Cartridge Case with its NH smokeless powder propellant and the M28A1 or A2 Primer.

Gun. This round is issued for firing in the M1 Gun when used against tanks.

COMPLETE ROUNDS FOR 90-MM GUNS

Complete Round	Status	Projectile	Filler	Fuze	Booster	Cartridge Case	Primer
Shell, Prac., M58	S	M58	Sand	Inert M43A2	Inert M20	M19	M28A1
Shell, H.E., M71	S&M ,	M71	TNT	M43A2 M48 M48A1	M20A1	M19	M28A1
Shell, H.E., M58	S	M71	Ammonal	M43	M20A1	M19	M28A1
Shot, A.P., M77	S&M	M77				M19	M28A1
Projectile, A.P.C., M82	S&M	M82	Exp. "D"	M68		M19	M28A1
Cartridge, Drill, M12	S&M	Cast Bronze		M44A2 Dummy	•••••	Cast Bronze	Inert

All other rounds are packed in fiber containers, two rounds per box, or three rounds per bundle.

The 105-mm howitzer container has been changed recently, due to damage done to cartridge cases in shipment when loosely assembled to the projectile. A container is now being used that opens at both ends, having a stop in the center. The projectile is placed in one end, fuze first, and the cartridge case with propelling charge and closing plug of cardboard is placed in the other end.

FURTHER REFERENCES: Complete Round Chart No. 5981; OS 9-20.

Chapter 11

Ammunition for 4.7-inch AA Guns

GENERAL.

The 4.7-inch AA Gun M1 on the 4.7-inch Gun Mount M1 is a new weapon designed for protection of large rear areas against fast-flying bombers at altitudes of approximately 30,000 feet. The maximum range varies from 50,000 to 60,000 feet. The mount is a trailer type, one load, two bogie portable unit designed for transport at low speeds over good roads. When emplacing the gun, the two bogies are removed and the four outriggers, which are connected to a heavy chassis, are lowered by hydraulic jacks to support the weight of the weapon. The breechblock is of the vertical sliding type which may be operated semiautomatically or manually. Ammunition is rammed home in the chamber by a power rammer which facilitates loading of the heavy round of ammunition. This ammunition is unique since it is the only existing round of separate loading ammunition that is provided with a cartridge case and is loaded into the gun in one operation.

Types of ammunition provided for the 4.7-inch AA gun include only high explosive.

Fuze. The FUZE, time, mechanical, M61, is "Standard" with this round of ammunition. It has a watch-like mechanism that can be set for any length of time up to 30 seconds. The M61 has a long ogive which continues the streamlining of the shell body and extends out 6.867 inches from the nose of the body. The fuze is shipped assembled to the M73 Shell. The function of the fuze is similar to that of the M43 Fuze used in 3-inch AA shell.

Booster. The M20A1 Booster is used on the M73 Round, and has been discussed with 75-mm gun ammunition.

Cartridge Case. The Brass Cartridge Case M24, weighs 24.70 pounds, and has an over-all length of 32.80 inches. It is fitted with a

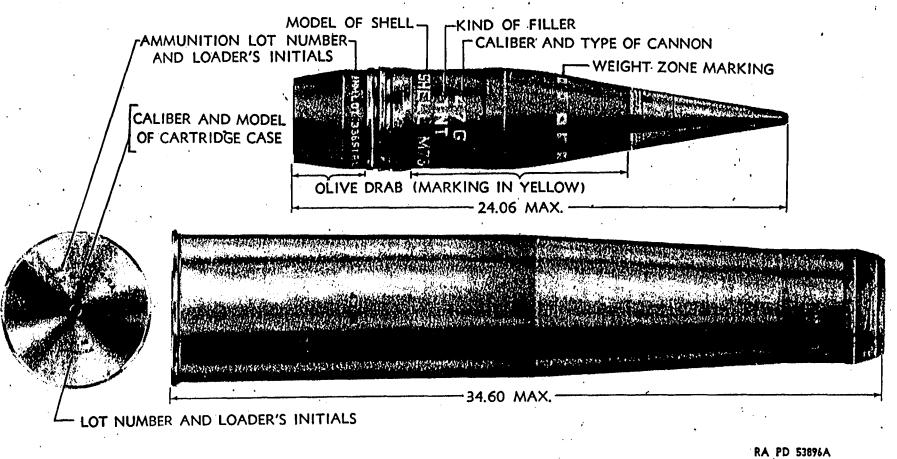


Figure 192 — SHELL, H.E., 4.7, M73

base rim to assist in extracting of the case after firing, and to trip the extractors in the breach so that the breechblock closes as the round is seated in the gun chamber. The diameter of the base is 7.55 inches.

Propelling Charge. This charge consists of loose NH powder contained in a brass cartridge case which is closed by a cork plug. An igniter of 8 ounces of Army black powder is placed around the primer to insure proper ignition.

Primer. The primer is the M1B1A2 100-grain percussion type of primer, discussed with 75-mm gun ammunition components.

SHELL, H.E., M73.

General. In this round the shell has a distinctive conical, long, graceful ogive beginning just ahead of the bourrelet and extending the length of the elongated fuze. The shell alone weighs approximately 50 pounds and is 24.06 inches long.

Projectile. The shell body is of forged steel construction with an ogival radius of 27.1 inches. It has a boat-tail base and a base plate of steel. The rotating band is 2.25 inches wide, and is made of gilding metal. The shell cavity is designed to hold 5.26 pounds of TNT, 4.8 pounds of 50/50 amatol and TNT surrounds, or 5.42 pounds of trimonite as a bursting charge.

Components. This round consists of a loaded projectile with the M20A1 Booster and the M61 Mechanical Time Fuze, and a separate Cartridge Case M24, with its cork closing plug, NH powder, igniter, and M1B1A2 Primer.

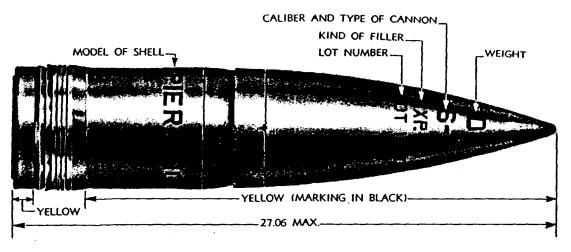
Packing. The propelling charge assembly is packed in an individual fiber container, two containers per wooden box. The fuzed shell is packed in an individual fiber container, two containers per wooden box.

Chapter 12 Ammunition for 4.5-inch Guns

GENERAL.

Weapon. The 4.5-inch Gun M1 on the 4.5-inch Gun Carriage M1 is a standard field weapon used for shelling targets within the ranges of 16,000 to 21,000 yards. Original American design called for a 4.7-inch gun, but the 4.5-inch caliber (approx. 114-mm) was standardized so that British and American guns could fire the same rounds of ammunition. The M1 Gun Carriage is of the split-trail type with pneumatic tires for high-speed transport.

AMMUNITION



RA PD 5311

Figure 80—SHOT, A.P., 105-lb, MK. XXXIII, w/FUZE, B.D., M60, 6-inch Guns, M1900-03-03A1-03A2-05-05A1-05A2

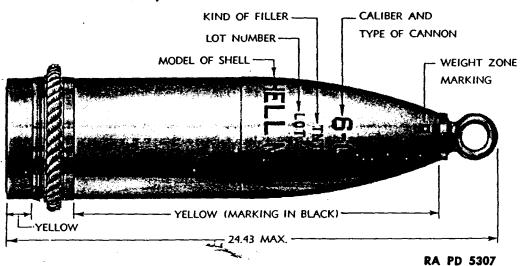


Figure 81—SHELL, H.E., 90-lb, MK. IIA1, Unfuzed, 6-inch Guns, M1897MI-08-08MI-08MII and M1900-03-03A1-03A2-05-05A1-05A2 (Adapted for Fuze, P.D. M51, w/Booster, M21, or M51A1, w/Booster, M21A1)

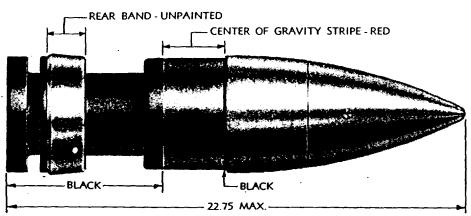


Figure 82—PROJECTILE, dummy, 108-lb, MK. IIA1, 6-inch Gun

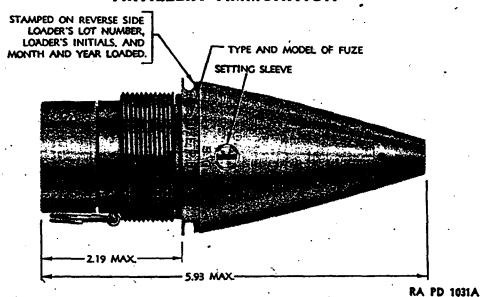


Figure 198 — FUZE, P.D., M51A1, w/BOOSTER M21A1

FUZE, P.D., M51. FUZE, M51, with BOOSTER, M21, is "Limited Standard" since it is superseded by the M51A1. It is used with all modified Mk. series and M-series, 155-mm, high-explosive and chemical shell except base ejection. It is identical with FUZE, P.D., M48, as discussed with 75-mm ammunition, except for the addition of an arming fork in the plunger assembly. The rotational velocity of major caliber projectiles is not sufficient, throughout their flight, to keep the plunger arming pins of the M48 Fuze in the receded position. As rotational velocity decreases the arming pins are forced, by their springs, back into the unarmed position sustaining the plunger support and thus prevent the primer from being driven onto the firing pin. To prevent this action a light, centrifugally weighted arming fork is pivoted in such a position as to swing its prongs between the arming pins when centrifugal force comes into play. The springs of the arming pins tend to push them back into place so that, as centrifugal force decreases, the pins contact the prongs of the fork and, while being held apart themselves, help to keep the fork in the armed position. There is enough room between the prongs of the fork for the plunger support to pass. The addition of the arming fork and use with the M21 instead of the M20 Booster resulted in changing the fuze nomenclature from M48 to M51.

FUZE, P.D., M51A1. When the M21 was changed to the M21A1 Booster, the A1 designation was also added to the fuze since the fuze and booster are shipped assembled to each other.

FUZES, Time and Superquick, M55 and M55A1. FUZE, time and superquick, M54, when assembled to the M21 Booster is designated M55. When the same fuze is assembled to the M21A1 it is designated M55A1. Fuzes M55 and M55A1 are used on modified

Mk. and M-series high-explosive shell for M1917-17A1-18 Howitzers. For description and function, see FUZE, time and superquick, M54, in the chapter on 75-mm gun ammunition.

FUZE, B.D., M60. This fuze is used in the armor-piercing round for 155-mm guns. The function and explosive train of the M60 are the same as those of the Mk. X, B.D. Fuze used in 14-inch ammunition (see description and illustration of Mk. X in chapter on 14-inch ammunition); the only difference in the two fuzes is in the body. The M60 has fewer threads for screwing into the projectile, and the diameter of the threads is greater than those of the Mk. X. The M60 body also has a flange for fitting over the base of the projectile which is omitted on the Mk. X.

Description. The M60 Fuze has a heavy steel body with a zinc plate as a rust-preventive. There is a cavity in the base into which is inserted the rotor assembly, the primer and delay assembly, the restraining spring, the plunger assembly, and a base plug, in the order given. The rotor assembly includes a brass rotor, a rotor charge of mercury fulminate and tetryl, a rotor lock pin, and a rotor lock pin lock. The primer and delay assembly fits in behind the rotor and contains a variable delay or no delay, and a percussion primer. The delay and primer holder is brass and has a sleeve extending rearward into which the restraining spring and plunger assembly fits. The plunger assembly consists of a sleeve, a plunger body, a firing pin, a pivot pin, and centrifugal pins backed up by springs. The firing pin is eccentrically weighted. Its point, in the unarmed position, is inside the plunger assembly. Two centrifugal pins, the heads of which engage recesses in the firing pin, hold it in the unarmed position. The sleeve fits around the plunger body and holds th ecentrifugal pins. and their springs in place. The sleeve is held in position by a small pin. A heavy base plug screws into the fuze body behind the plunger assembly.

A cavity in the upper part of the fuze body is connected with a small hole to the rotor cavity. A lead charge of tetryl is pressed into this hole. A booster pellet of 278 grains of tetryl is pressed in over the lead charge. The upper cavity is closed with a hollow closing screw containing another booster pellet of 170 grains of tetryl. Centrifugal pins backed up by springs are inserted through diametrically opposed holes in the fuze body and are held in place by retaining screws. These pins are for the purpose of holding the rotor in the unarmed position. One of the rotor centrifugal pins is at an angle of 30 degrees. A small hole in the side of the slider cavity is backed up by a pin inserted through the side of the body and soldered in place. A rotor stop pin is also inserted through the fuze body and soldered in place.

Function. The function of the M60 Fuze begins with centrifugal force when the projectile leaves the bore of the weapon. The

centrifugal pins holding the firing pin in place move outward against their springs. The eccentrically weighted firing pin, now being free, swings on its pivot to an upright position with the point protruding from the plunger assembly and in line with the primer. While these actions are taking place, the centrifugal pins in the upper part of the fuze spread against their springs and leave the rotor free to move. The rotor, being weighted off center, swings around its pivot until it contacts the rotor stop. At this instant the rotor lock pin, also acted upon by centrifugal force, moves partially outward into the recess in the fuze body and thus locks the rotor securely in place. The rotor lock pin lock, due to air retardation or "creep" in the projectile, moves in behind the rotor lock pin providing additional insurance that the rotor will remain armed. In this armed position the rotor detonator is in line with the rest of the explosive train.

On impact, the plunger compresses the restraining spring and carries the firing pin into the primer. The flash from the primer either ignites a variable delay of black powder or flashes through the hole to the detonator if no delay is present. The explosion of the mercury fulminate in the detonator, which is detonated by the primer flash or the burning delay, initiates the remainder of the explosive train of tetryl detonator pellet, tetryl lead charge, booster of tetryl, and shell bursting charge of explosive D.

FUZE, Time, Mechanical, M67. This time fuze is used on modified Mk. and M-series 155-mm projectiles when a time setting rather than impact with the target is desired. The action of the fuze is similar to the M43 with its modifications (see M43 Fuze, in chapter on 3-inch AA ammunition). The fundamental differences are as follows:

The centrifugal gears in the M67 are spring-driven and will, therefore, complete their part of the function without the aid of centrifugal force.

The escapement is so controlled that the time setting is from 0 to 75 seconds.

The escapement lever is released by a centrifugal plate which is backed up by the set-back pin. This is an added safety precaution against the accidental functioning of the fuze before it is fired from the weapon.

A safety pin is added under the set-back pin to insure its staying in position during handling, shipment, and storage.

BASE COVERS.

Two types of base covers may be found on 155-mm, H.E. shell. The old type of cover consists of a lead disc, a copper cover, and lead calking wire. The copper cover, with lead disc inside, fits into a groove machined into the base of the projectile and is secured by calking the lead wire into the remaining space in the groove. The new type con-

PROJECTILE DATA INFORMATION DATE: NATIONALITY: April, 1943 U.S. NAVY CALIBER: 16" Mk. 5 - 2240 1bs CLASSIFICATION: This projectile to be used against heavy armor plate. TARGET: PROJECTILE BODY BASE PLATE C-O-N-F-I-D-E-N-T-I-A-L

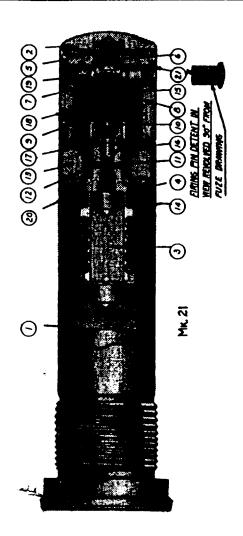
D-1

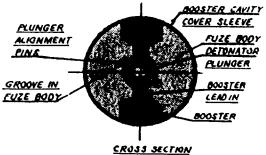
EUA:	JECTILE DATA	INFORMATION			
NAT	IONALITY: U.S. NAVY	DATE: April, 1943			
CAL	IBER: 16" Mk. 5 - 2240 lbs	CLASSIFICATION: A.P.			
TAR	DET: This projectile to be plate.	used against heavy armor			
1.	OVERALL LENGTH - With Cap & Windshield Without Cap & Windshield	64.0" 43.4"			
2.	DIAMETER OF BASE	15.97"			
3.	DISTANCE FROM BASE TO BAND	2.5"			
4.	WIDTH OF BAND	5.3 ^N			
5.	DIAMETER OF BOURRELET	15.97"			
6.	TYPE OF FILLING	Explosive D			
7.	WEIGHT OF FILLING	33.6 lbs			
8.	WEIGHT OF PROJECTILE LOADED	2240 lbs			
9.	CHARGE-WEIGHT RATIO	1.5 %			
10.	TYPE OF GUN USED IN	16"/45			
11.	CAP & WINDSHIELD: The cap weighs 219 lbs and is soldered on to the nose of the projectile. In addition to the solder, the cap is also secured by seven crimp caps equally spaced around the periphery of the nose. The Windshield is then attached to the cap and held in place by five equally spaced notches which are staked.				
12.	TRACER	Kk. 5			
13.	FUZES WHICH MAY BE USED IN PROJECTILE	Base: Mk. 21; Mk. 23.			
14.	PRIMER	Mk. 15 Mod 1			
15.	REMARKS:				
	For method of marking and p	mainting projectilé, see			
	The method of attaching the by the manufacturer with the	windshield may be varied as approval of the Eureau			

The method of attaching the windshield may be varied by the manufacturer with the approval of the Bureau of Ordnance. NATIONALITY: U.S. NAVY DATE: April, 1943

DESIGNATION: Mk. 21

CLASSIFICATION: Base Detonating Fuze





CROSS SECTION

OF BODY

SHOWING METHOD OF PREVENTING

MISALIGNMENT OF DETONATOR PLUNGER

LEAD OUT | BOOSTER LEAD IN

MKs. 19, 20, 21, ¢28

PROJECTILE FUZE DATA

NATIONALITY: U.S. NAVY DATE: April, 1943

DESIGNATION: Mk. 21

CLASSIFICATION: Base Detonating Fuze

PROJECTILES USED IN

6"/47 A.P.

8"/55 A.P.

12"/50 A.P.

14"/45/50 A.P.

16"/45/50 A.P.

MARKINGS

T.D.F. Mk. 21

Lot ___

1. MATERIAL OF CONSTRUCTION

Body - Manganese Steel Nose Cap - Duralumin

2. OVERALL LENGTH

6.68

THREADED LENGTH THREADS 0,96 11 L.H.

3. DIAMETER Body - 1"37

Head - 1.80

4. DESCRIPTION:

The fuze is composed of two major parts; namely, the fuze body (1) and nose cap (2). The fuze body assembly contains the auxiliary plunger assembly (3), the detonator plunger assembly (4), detents (20, 21), anticreep spring assembly (15) and two radial boosters (13).

The nose cap (2), which is secured to the forward end of the fuze body by a threaded joint, houses the sensitive firing pin (5) and detents (21). A locking pin (18) is provided to lock the nose cap in position after final assembly at the loading plant.

5. OPERATION:

The fuze is assembled in the unarmed position. All components of the fuze remain in this position during transportation, storage and until after the fuzed projectile is fired from the gun. After the projectile leaves the muzzle of the gun, the detonator plunger detents (20) and the firing pin detents (21) are forced outward by centrifugal force against their spring pressure and friction. The detonator plunger (4) is now unlocked but is retained in the assembled (safe) position during flight by the resistance of the anticreep spring (15) which acts against the forward part of the detonator plunger.

Since the firing pin detents (21) have been forced out, the firing pin (5) is free to be impinged upon by the sensitive primer (6) held in the detonator plunger (4) immediately upon impact of the projectile. Upon impact the detonator plunger continues forward impinging the sensitive primer on the firing pin. The explosion of the sensitive primer (6) drives the plunger firing pin (7) against the secondary primer (8), while at the same time, the gases resulting from the explosion of the sensitive primer pass through the port holes on the side of the primer container and build up a high pressure within the inner cup (19) (anti-creep spring container), expanding that part of the cup which is adjacent to the drilled holes in the nose cap. The bulging of the inner cup locks the detonator plunger in a firing position. In the firing position the lead-out holes (11) in the plunger are in alignment with the booster lead-in holes (12).

PROJECTILE FUZE DATA

NATIONALITY: U.S. NAVY

INFORMATION

DATE:

April, 1943

DESIGNATION: Nk. 21

CLASSIFICATION: Base Detonating Fuze

6. EXPLOSIVE TRAIN:

The path of the explosive train carries from the detonator plunger primer and around the baffle unit (9) functioning the 0.035 second delay pellet (10) and then the detonator (16), lead-outs (11), booster lead-in (11) and boosters (13).

7. DETONATION:

0.035 seconds delay on thin plate or heaviest armor.

8. SAPETY FEATURES:

Safety detent mechanism armed only by centrifugal forceone set for the detonator plunger, and another set to protect the sensitive primer from contact with the sensitive firing pin assembled in the nose cap.

Detonator Safety Feature--When the fuze is assembled in the safe or unarmed position and also when traveling through the bore of the gun and while in flight, the detonator may be exploded without affecting the boosters or the bursting charge of the projectile.

9. REMARKS:

If this fuze is found in an unexploded projectile, it will probably be in an armed position.

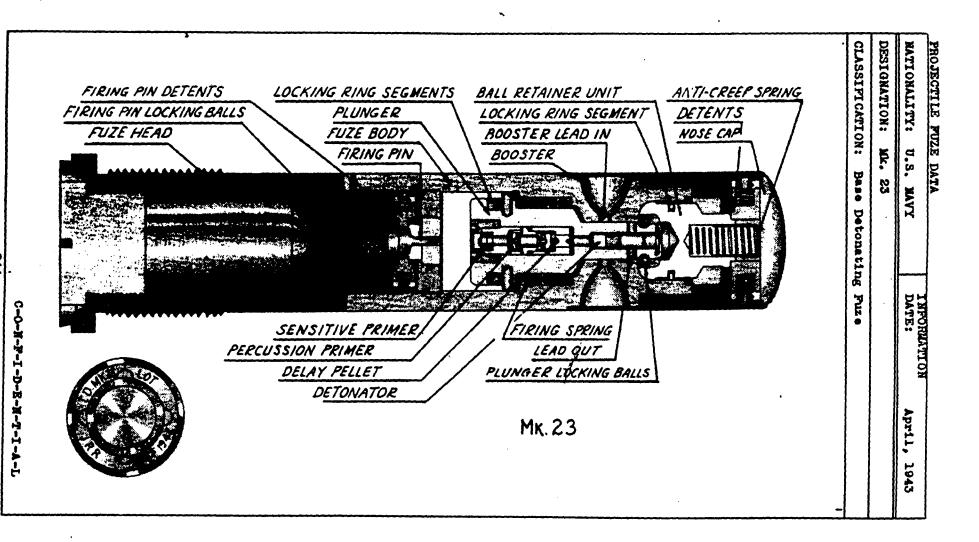
If a detonation of the sensitive primer has taken place, cup and plunger will be locked in position(by expansion).

This fuze is designed with an additional plunger locking unit (17). The plunger body is drilled, as shown, and balls set into the drilled holes. On forward motion of the plunger and under the action of centrifugal force, the locking balls fly out of their recesses into the forward or larger diameter portion of the body cavity, locking the plunger (4) in the forward position.

See Body cross section for plunger alignment method.

Drawing Identification Numbers:

- 1. Fuze Body.
- 2. Nose Cap.
- 3. Auxiliary Plunger.
- 4. Detonator Plunger.
- 5. Sensitive Firing Pin.
- 6. Sensitive Primer.
- 7. Plunger Firing Pin.
- 8. Secondary Primer.
- 9. Beffle Unit.
- 10. Delay Pellet.
- 11. Booster Lead-out.
- 12. Booster Lead-in.
- 13. Booster.
- 14. Cover Sleeve.
- 15. Anti-creep Spring.
- 16. Detonator.
- 17. Locking Balls & Recess.
- 18. Locking Pin.
- 19. Inner Cup.
- 20. Detonator Plunger Detent.
- 21. Firing Pin Detents.



PROJECTILE FUZE DATA

NATIONALITY: U.S. NAVY

DATE:

April, 1943

DESIGNATION: No. 23

CLASSIFICATION: Base Detonating Fuze

PROJECTILES USED IN

in markings

8"/55 A.F. 260# and 335# 12"/50 A.P. 1500# 14"/45-50 A.P. 1500# 16"/45 A.P. 2240# and 2700# T.D. Mk. 23 Lot JRR NGF 1942

1. FUZES FOUND WITH

None - used in A.P. projectiles.

2. MATERIAL OF CONSTRUCTION

Cadmium Plated Steel

3. OVERALL LENGTH 7:80 THREADED LENGTH 1:25 THREADS 13 L.H.

4. WEIGHT

2 lbs 7 oz. without tracer.

5. DIAMETERS

Head - 188

Body - 1:38

6. DESCRIPTION:

The fuze is composed of three major parts; namely, the fuze head, fuze body and the nose cap.

The fuze head assembly contains the firing pin and detents. The body contains the plunger and firing spring. The nose cap, which is threaded to the forward end of the body, contains the ball retainer unit and its detents.

7. OPERATION: The operation of the fuze is as follows: The fuze is assembled in the unarmed position as shown on the general arrangement drawing and remains in this position during transportation, storage and until after the fuzed projectile is fired from the gun. After the projectile leaves the muzzle of the gun the firing pin detents and ball retainer detents are forced outward due to centrifugal force. The firing pin creeps forward during flight and is locked in the armed position by two steel balls which drop into the space left by the forward movement of the firing pin. Should the firing pin fail to creep forward during flight, it is projected forward and locked on impact. The ball retainer is lightly gripped by the ring of plunger locking balls which tend to spread radially as long as the firing spring exerts its force to pull the plunger to the rear. Therefore, it does not creep forward during flight but remains in the assembled position until impact. To further insure that the ball retainer will not creep forward, an anti-creep spring is interposed between the ball retainer and nose cap.

on impact all parts tend to move forward with a force determined by the nature of the impact. Theplunger compresses the firing spring and moves forward until stopped by the shoulder in the fuze body. At the same time the ball retainer moves forward until stopped by the nose cap and is locked in this position by three ring segments engaging a shoulder at the end of the body. The plunger locking balls are released by this forward movement of the ball retainer and are projected forward into the cavity around and inside the ball retainer. The plunger remains in the forward position until the

PROJECTILE PUZE DATA

INFORMATION

NATIONALITY: U.S. NAVY

DATE:

April, 1943

DESIGNATION: Mk. 23

CLASSIFICATION: Base Detonating Fure

- 7. OPERATION, continued force of impact diminishes sufficiently to permit the firing spring to propel the plunger to the rear allowing the firing pin to stab and fire the primer, thus initiating the explosive action. With the plunger in the rear position, the plunger lead-out holes and the booster lead-in holes are brought into alignment and the fuze is completely armed. The plunger is locked in the rear position by three ring segments in a manner similar to the ball retainer. On very light impact, when the force acting on the plunger is insufficient to compress the comparatively strong firing spring, the ball retainer acts as a trigger by slipping forward out of the grip of the locking balls and releases the plunger. The firing spring then forces the plunger to the rear allowing the firing pin to stab and fire the primer. When the sensitive primer is fired, the gas from it fires the percussion primer. The flash from the percussion primer passes through and around the baffle and ignites the delay pellet which defers ignition of the detonator for .020 seconds. This detonator fires the plunger lead which in turn fires the plunger lead-outs, booster lead-ins and fuze booster.
- 8. ARMING TIME SPEED

1200 - 1400 r.p.m.

9. DETONATION:

Delay on thin plate or heaviest armor. Water Impact after slight delay.

10. SAFETY FEATURES:

Safety Detent mechanism armed only by centrifugal forceone set of detents for the firing pin and one set for the ball retainer unit.

11. REMARKS:

Delay Time- .02 seconds.

Plunger alignment is maintained by pins in plunger stock, as shown. This holds the plunger lead-out and booster lead-in in axial alignment.

2-5. Bomb, Fragmentation: 20-Pound, AN-M41A1

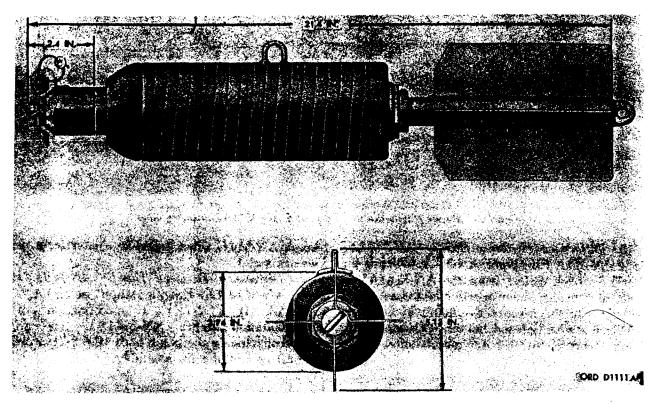


Figure 2-6. Bomb, fragmentation: 20-pound, AN-M41A1.

Table 2-3. Bomb, Fragmentation: 20-Pound, AN-M41A1

■ Model	AN - M41A1
Length of Assembled Bomb (in.)	21.4
Body Diameter (in.)	
Fin Span (in.)	
Weight of Filler (lb):	
Composition B	. 2.8
TNT	. 2.7
Weight of Fin Assembly (lb):	
Weight of Assembled Bomb (lb):	
Loaded with Composition B	. 19.93
Loaded with TNT	
Nose Fuze	AN-M110A1
	AN-M158
•	AN-M120A1
Bomb Cluster	AIN-M1A2
Cluster Adapter	

a. Description. The 20-pound frag bomb AN-M41A1 (figs. 2-6, 2-7, and table 2-3) is constructed of a thin tubular sleeve holding a steel fragmenting coil and a cast steel nose and tail pieces. The sleeve is threaded to the nose and tail pieces. The fin assembly is made of rectangular sheet-steel vanes welded to a 1-inch diameter pipe. The threaded end of the pipe is secured to the base filling plug. The nose section of the bomb is threaded to receive an impact fuze. At the center of gravity, a U-shaped eyebolt of steel is welded to the bomb case for horizontal suspension; an eyebolt is welded to the tail for vertical suspension. Approximately 13 percent of the weight of the bomb (complete) is explosive filler.

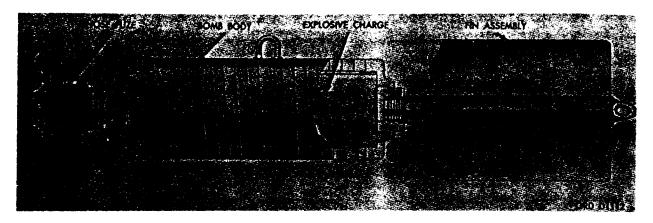


Figure 2-7. Bomb, fragmentation: 20-pound, AN-M41A1, cutaway view.

b. Difference Between Bombs AN-M41A1 and AN-M41. Frag bomb AN-M41, which is the earlier model, differs from the AN-M41A1 in length. A clange in construction added a ½-inch shoulder to the nose of the bomb to facilitate clustering with unfuzed bombs. This change in design constitutes the Al modification. Frag

bomb AN-M41, when issued in cluster form, is always fuzed.

c. Difference Between Bombs AN-M41A1 and AN-M41A2, Fragmentation bomb AN-M41A2, (fig. 2-7.1) a modification of fragmentation bomb AN-M41A1, has no suspension lug on the bomb body (fig. 2-7) or on the aft end of the fin assembly.

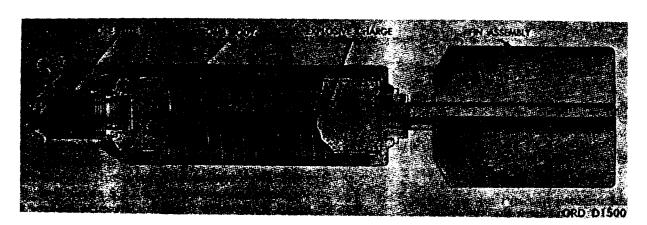


Figure 2-7.1. Bomb, fragmentation: 20-pound, AN-M41A2, cutaway view.

2-6. Bomb, Fragmentation: 23-Pound, M40A1



Figure 2-8. Bomb, fragmentation: 23-pound, M40A1.

Table 2-4. Bomb, Fragmentation: 23-Pound, M40A1

Model	M40A1
Length of Assembled Bomb (in.)	30.15
Bomb Diameter (in.)	4.37
Weight of Filler (lb):	
Composition B	2.8
TNT (Grade I)	
Weight of Assembled Bomb (lb):	
Loaded with Composition B	
Loaded with TNT	24.8

2-10

Nose	Fuze	M170 (with
		detonator
		M 18A2)
		A N - M120A1
		A N - M120
Bomb	Cluster	A N - M4A2
	Adapter	

a. Description. Frag bomb M40A1 (fig. 2-8 and table 2-4) is a parachute-type bomb designed for assembly in clusters; however, it is also authorized for single suspension use. This bomb is used in fragmentation bomb cluster M4A2.

2-7. Bomb, Fragmentation: 90-Pound, M82

b. Differences. The M40 is ½-inch shorte, than the M40Al due to a change in design which added a shoulder to the nose of bomb M40Al; this change in design constitutes the "Al" modification. The M40 is used in forming the M4 cluster as well as the M4A2 cluster. The M40 and M40Al utilize the same bodies as the M41 and M41Al. The weight difference is the difference between the parachute assembly used for the other.

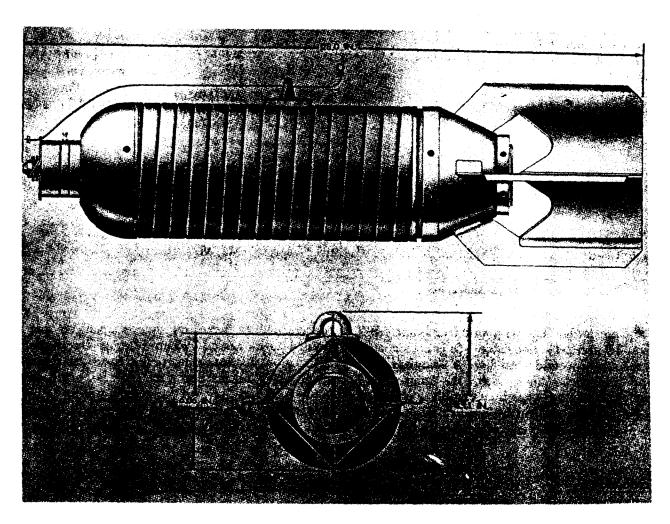


Figure 2-9. Bomb, fragmentation: 90-pound, M82.

Table 2-5. Bombs, Fragmentation: 90-Pound, M82 and 120-Pound, M86

	90-Pound, M82	128-Pound, M86
Model Fin Assembly	M101	M 86
Parachute Unit Assembly		M 5
Length of Assembled Bomb (in.)		58.82
Body Diameter (in.)		6.06
Fin Span (in.)	8.11	
Diameter of Parachute Unit (in.)	_	7.88
Weight of Filler (lb):		
Composition B	11.5	11.5
TNT	•	10.9
Weight of Fin Assembly (lb)		
Weight of Parachute Unit Assembly		36.0
Weight of Adapter-Booster, M117 (lb)		1.19
Arming Wire Assembly	MK1 or AN- M6A2	Furnished w/Parachute Unit (or M31
Weight of Assembled Bomb (lb):		Substitute)
Loaded with Composition B	88.0	117.4
Loaded with TNT	87.4	116.8
Nose Fuze*	M904E1	AN-M120A1
	M904E2	M170
	M904E3	
	AN-M103A!	
	AN-M139A1	
	AN-M140A1	
	AN-M166 (VT)	
	AN-M166E1	
	(VT)	
	AN-M168 (VT)	
	M163	
	M164	
	M165	
n 1 0	M188 (VT)	1
Bomb Cluster	· -	
Cluster Adapter		

For all fuzes other than VT, use nondelay only.

a. Description. The 90-pound frag bomb M82 (figs. 2-9 and 2-10, and table 2-5) is constructed
of a spirally wound steel bar. A seamless steel inner tube forms the base for the outer-wound steel bar, and a box-type fin assembly is attached to the tapered aft end by a fin lock nut. The bomb is designed for use in clusters or for single

suspension. It has only one suspension lug welded to its casing. When adapted for single suspension, instantaneous or VT fuzes are used. Fitting of a mechanical time fuze is permitted with addition of an adapter-booster. Approximately 13 percent of the total weight of the complete assembly consists of explosive filler.

4-3. Fuze, Bomb: Nose, AN-M126A1 (or AN-M126), AN-M158, AN-M159, M193

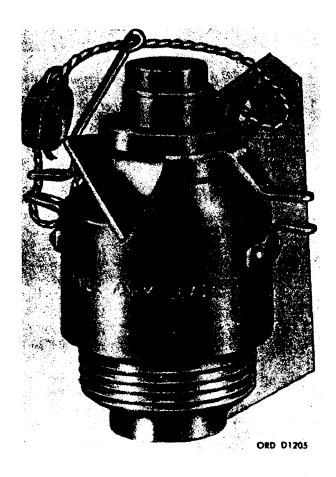


Figure 4-3. Nose fuze AN-M126A1.

Table 4-2. Nose Fuzes AN-M126A1, AN-M126, AN-M158, AN-M159 and M193

	AN-M126	AN-M126A1	AN-M158	AN-M159	M193
Firing Action	Impact	Impact	Impact	Impact	Impact
Firing Delay	Instantaneous	Instantaneous	Instantaneous	Instantaneous	Instantaneou
Arming:					
Type	Delayed	Delayed	Delayed	Delayed	Delayed
Revolutions to Arm	570	325	375 to 512	414 to 512	528
Air Travel to Arm (ft)	1200	72 5	1200	1200	ļ
Overall Length (in.)	3.12	3.25	3.76	3.28	4.40
Protrusion from Bomb (in.)	2.28	2.4	2.4	2.4	3.04
Vane Span (in.)	3.9	3.0	3.0	3.0	3.0
Weight (lb)	.68 (alum.)	1.10	1.02	0.65	1.04
	1.16 (steel)				
Number of Vane Blades	2	2	2	2	2
Booster Charge: Type	Detonator M28	Detonator M28	Tetryl Pellet	Small Tetryl Column.	Tetryl Pellet

TM 9-1325-200/NAVWEPS OP 3530/TO 11-1-28

a. General. Nose fuzes of this type (fig. 4-3 and table 4-2) are vane operated and delay armed. They detonate the bomb instantaneously upon impact.

- b. Nose Fuze AN-M126A1 (or AN-M126).
 - (1) General. Fuze AN-M126A1 (or AN-M126) is an impact-type vane operated and delay armed nose fuze. It detonates the bomb instantaneously upon impact. Instead of a booster, this fuze has a steel cylinder. The cylinder contains a firing train consisting of a primer, an upper detonator and a lower detonator. (In certain chemical bombs the train is seated against the tetryl burster.) The AN-M126. the earlier model, has more teeth on the gears than the AN-M126A1 and requires 570 vane revolutions to arm as opposed to 325 revolutions in the AN-M126A1. Fuze AN-M126 has three safety blocks, each a 120° segment. In the unarmed position, the arming sleeve fits into a groove in the blocks. This prevents the blocks from falling out. Fuze AN-M126A1 has one safety block.
 - (2) Description. Fuze AN-M126A1 (fig. 4-4) is 1.75 inches in diameter and 3.25 inches long. A cylindrical case (4, fig. 4-4) encloses the working parts. An arming-vane hub (1) with an arming vane (14) attached, a striker (15) fastened to the head of a firing pin (4) and a C-shaped safety block (2) are located at the nose end of the fuze. A detonator holder (9) containing the detonator (8) is located at tail end. The safety block is held in the unarmed fuze by an arming sleeve (13) screwed into the arming-vane hub. A 33-tooth vanehub gear (12) is fastened to the inner end of the arming-vane hub and meshes with a pinion (11). A 34-tooth arming-sleeve gear (5) is fastened to the inner gear of the arming sleeve and meshes with the pinion. The firing pin and firing-pin spring (6) extend from the nose of the fuze through the arming sleeve and the two gears into the opening above the detonator. A retaining pin (7) holds the firing pin in the fuze. The arming vane is prevented

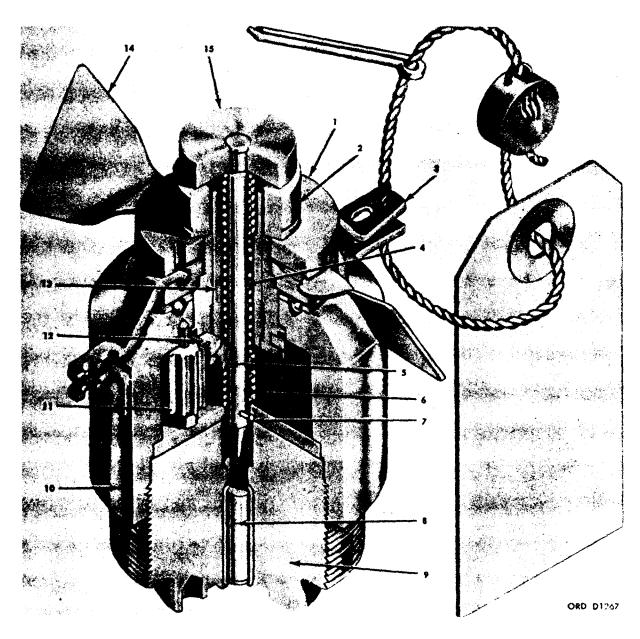
from turning by a safety wire which is threaded through holes in two armingwire guides (3). One of the guides is attached to the fuze case; the other, to the arming vane.

(3) Functioning.

- (a) Upon release. Release of the fuzed bomb from the aircraft withdraws the arming wire and frees the arming vane to rotate in the airstream. The vane-hub gear attached to the arming-vane hub rotates with the arming vane and turns the pinion, which turns the arming-sleeve gear in the same direction as the vane-hub gear. The armingsleeve gear has one more tooth than the vane-hub gear; consequently, the armingsleeve gear turns more slowly than the vane-hub gear and lags one gear tooth behind the vane hub for each revolution of the arming vane. This difference in rotational speed causes the arming sleeve to unscrew from the vane hub and to withdraw into the body of the fuze. After approximately 325 revolutions of the arming vane, in the case of AN-M126A1, or 570 in the case of AN-M126, the arming sleeve is clear of the safety block. The safety block falls away, arming the fuze.
- (b) Upon impact. When the striker hits a solid object, the firing pin is driven into the detonator. The detonator explodes, completing fuze action.
- (4) Released safe. If it is necessary to release fuzed bombs over friendly territory, the aircraft arming controls are set in the SAFE position before the bombs are jettisoned. In this position, the arming wire is released from the bomb rack with the bomb, preventing the arming vane assembly from rotating and arming the fuze. The unarmed fuze will not function upon impact.
- (5) Accidental arming. The fuze is armed when the safety block is not in position between the striker and the vane hub, whether the arming vane has or has not turned.

Warning: Never attempt to disarm a fuze suspected of being armed. Reverse rotation of the arming vane assembly will force the firing pin into the detonator and fire the fuze. An armed fuze must be disposed of by authorized and qualified munitions personnel.

- c. Nose Fuzes AN-M158 and AN-M159.
 - (1) General. Fuzes AN-M158 and AN-M159 (fig. 4-5) are vane operated and delay They detonate the bomb instantaneously upon impact. The air travel (1,200 feet) necessary to arm fuzes AN-M158 and AN-M159 makes them



- Arming-vane hub Safety block
- Arming-wire guides Firing pin
- Arming-sleeve gear
- Firing-pin spring Retaining pin
- Detonator
- Detonator holder
- 10 Cylindrical case

Figure 4-4. Nose fuze AN-M126A1-cross section.

- Pinion Vane-hub gear
- Arming sleeve
- Arming vane
- Striker

suitable for use with land-based and and carrier aircraft. Fuzes AN-M158 and AN-M159 differ only in that the former has a booster containing 0.6 ounce of tetryl, whereas the latter has a smaller metal holder containing a column of tetryl. This difference in booster volume has resulted in a variance in fuze length. Fuzes AN-M158 and AN-M159 do not have safety blocks under the striker. In the unarmed condition, the striker is snug against the vane nut.

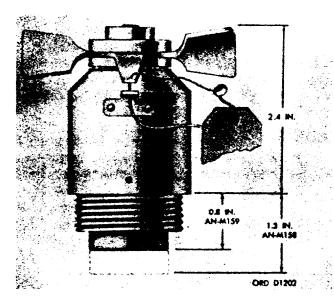


Figure 4-5. Nose fuzes AN-M158 and AN-M159.

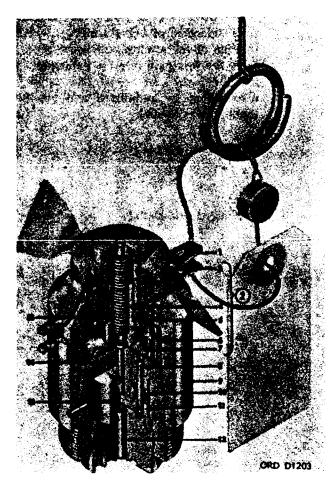
(2) Description.

- (a) General. Fuze AN-M159 (fig. 4-6) is 1.75 inches in diameter and 3.25 inches long. A brass body (9) contains an arming mechanism (2), a firing pin (14), a rotor (11) and a detonator (12). An arming vane is attached to the arming hub (3) at the nose end of the fuze. Two arming-wire guides (1) are part of the arming vane and turn with it. Two more arming-wire guides are fastened to the fuze body. A sealing wire prevents the arming vane from being rotated accidentally.
- (b) Arming mechanism. The arming mechanism (2) consists of an arming hub (3), a pinion (6), an arming sleeve (4), a 39-tooth gear (5), and a 40-tooth gear

- (7). The arming hub and arming vane rotate freely on ball bearings in the nose of the fuze. The 39-tooth gear or the inner end of the arming hub meshes with the pinion. The arming sleeve with a firing pin assembly mounted in it is screwed part way into the interior of the arming hub. The 40-tooth gear on the inner end of the arming sleeve meshes with the pinion, which is grooved to accommodate the 40-tooth gear.
- (c) Firing pin assembly. The firing pin assembly, mounted inside the arming sleeve, consists of the firing pin (14) and the firing-pin spring (15). The point of the firing pin extends into a chamber inside the fuze body. The firing pin is held in the arming sleeve by a shoulder near the center and is forced toward the fuze nose by the spring.
- (d) Rotor. The rotor (11), on a pivot (8) in the chamber inside the fuze body, holds detonator M20(13) set in a hole drilled through the rotor. A second hole drilled partly through the rotor receives the firing pin when the fuze is unarmed. A rotor spring (10) attached to the rotor bears against the fuze body and tends to pivot the rotor into the armed position. A spring-loaded detent in the nose end of the rotor latches the rotor in place when it moves to the armed position.
- (e) Detonator. The detonator is an explosive charge in a metal holder screwed into the bottom of the fuze.

(3) Functioning.

- (a) Before release. Before the fuzed bomb is released, the arming wire prevents the arming vane from turning. The end of the firing pin in the hole in the rotor holds the rotor in the unarmed position with the primer out of alignment with the arming pin and detonator.
- (b) After release. When the bomb containing the fuze is released, the arming wire is withdrawn. This frees the arming vane to rotate in the airstream, thereby turning the arming hub. The 39-tooth gear attached to the arming hub turns



- Arming-wire guides Arming mechanism
- Arming hub Arming sleeve
- Pinion
- Gear Pivot

- Body
- 10 Rotor spring
- Rotor
- Detonator
- Detonator M20
- Firing pin
- Firing-pin spring

Figure 4-6. Nose fuze AN-M159-cross section.

the pinion, which turns the 40-tooth gear attached to the arming sleeve. The gear on the arming sleeve lags one tooth behind the gear on the arming hub for each revolution of the arming vane. Lag causes the arming sleeve to screw forward into the arming hub, one revolution for every 40 revolutions of the arming vane carrying the firing pin assembly forward with it. When the firing pin assembly has advanced far enough to withdraw the point of the firing pin from the hole in the rotor (after 400 to 500 revolutions of the arming vane), the rotor spring forces the rotor to pivot until the primer is in line with the firing pin and the detonator, and the fuze is armed. As the firing pin assembly moves forward, the head of the firing pin progresses out of the fuze body. When the fuze arms, the head is approximately one-quarter of an inch forward of its original position. After arming is completed, the arming sleeve continues to move forward until the 40-tooth gear enters the groove in the pinion and disengages from the teeth, at which time the arming sleeve ceases to advance.

- (c) Upon impact. When the head of the firing pin hits a solid object, the point is forced into detonator M20 which functions and explodes the lower detonator, completing the fuze action.
- (4) Accidental arming. When the head of the firing pin has advanced more than oneeighth of an inch, the fuze should be considered armed and dangerous.

Warning: Never attempt to disarm a fuze suspected of being armed, as reserve rotation of the arming vane will force the fiiring pin into the dentonator and fire the fuze. An armed fuze must be disposed of by authorized and qualified munitions personnel only.

- d. Fuze, Bomb: Nose, M193.
 - (1) General. Nose fuze M193, a modification of fuze AN-M158 (c above), is authorized for use in practice bomb M124. Nose fuze M193 differs in that it has a modified arming vane and a nose shield. The arming vane has a blade angle of 85°, instead of 60°, which enables the vane to withstand higher ir speeds than the conventional vane. The nose shield, a domeshaped, aluminum shell which protects the striker from excessive air pressure at high speeds, is attached by drive screws to the vane nut. Pressure on the striker would prevent it from advancing relative to the fuze body and thus prevent the fuze from arming. The shield is provided with two inspection holes through which the position of the vane hub can be observed.

- (2) Functioning. Fuze M193 functions like fuze AN-M158.
- (3) Accidental arming. If the striker has risen more than 1/4 inch above the vane nut, the fuze must be considered armed and dangerous.

Warning: Never attempt to disarm a fuze suspected of being armed. Reverse rotation of the arming vane assembly will force the firing pin into the detonator and fire the fuze. An armed fuze must be disposed of by authorized and qualified munitions personnel.

D-2

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Some of the considerations taken in grading of ammunition are illustrated by the following examples:

Ammunition to be used in the bolt-action rifle requires that the average net extraction effort shall not exceed 15 pounds. This is essential for uniform and reliable action in a manually-operated weapon but is of lesser importance in automatic and semiautomatic weapons.

Ammunition for use in synchronized and remote controlled aircraft machine guns must be of selected uniformity and have a minimum variation in rate of ignition. These requirements are essential to insure continuous feeding during combat use of aircraft guns, where malfunctioning might result in destruction of propellers or might create other hazards.

Due to the rugged construction of the ground type of machine guns, the continuous control exercised by the operator, and the lower rate of fire, less stringent test limits are required. Ammunition that meets the general specifications for accuracy, pressure, dimensions, etc., is satisfactory.

Regrading. Ammunition in storage is periodically retested to insure that its characteristics have not changed. If changes have occurred, as shown by surveillance tests, the ammunition is regraded and the new grades published in OFSB 3-5.

Priority of Issue, Use and Sale. In order to provide a sequence for the issuance of small-arms ammunition, the following priorities of issue have been established:

- 1. Those lots marked with an asterisk in OFSB 3-5.
- 2. Lots containing less than 20,000 rounds.
- 3. Lots marked "Repacked-Liners Not Sealed."
- 4. Lowest or oldest numbered lots.

Following this rule, ammunition which has had the longest or least favorable storage will be issued first whenever practicable.

AMMUNITION, CAL. 30.

General. The ammunition described is designed for use in all standard rifles and machine guns of cal. .30. It includes cartridges of the following types: armor-piercing, ball, tracer, incendiary, blank, dummy, guard, rifle grenade, and high-pressure test.

Cartridges which differ in the type of cartridge case, such as subcaliber, cal. .30, and carbine, cal. .30, will be described separately.

CARTRIDGE, Ball, Cal. .30, M1906.

General. While the cal. .30, M1, and cal. 30, M2, Ball Ammunition have superseded the M1906 as standard items, the description of the

latter is of value, in view of the stock of M1906 Ammunition that remains on hand.

Visual identification. This cartridge may be distinguished from the M1 and M2 Ball Rounds by the color of the jacket of the bullet, which is cupronickel and has a silvery appearance. Also, the numerals on the head of the cartridge case run from "21" downward.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 395 grains.

The bullet is pointed, having a square or cylindrical base, and the length of the bullet is approximately 1.085 inches. It has a jacket of cupronickel with a lead core hardened with antimony $(97\frac{1}{2})$ percent lead and $2\frac{1}{2}$ percent antimony). The bullet is secured in the neck of the cartridge case by crimping the mouth into a cannelure on the bullet. The pull required to extract the bullet from the case is 75 pounds (minimum bullet pull).

External ballistics, maximum range (approx.)......3,450 yd Average maximum pressure..........52,000 lb per sq in. Velocity:

At 78 ft	
At 53 ft	2,660 ft per sec
At muzzle	2,700 ft per sec
Muzzle energy	2,429 ft-lb

CARTRIDGE, Ball, Cal. .30, M1.

General. This cartridge is a limited standard item of issue and is used in the same weapons and for the same purposes as the CARTRIDGE, ball, cal. .30, M2.

Visual identification. This cartridge cannot be readily distinguished from the M2 Ball Cartridge of late manufacture except by weight and date.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 420 grains.

The bullet consists of two parts, a lead alloy core, composed of 90 percent lead and 10 percent antimony, and a gilding metal jacket. An alternative bullet having a gilding metal jacket and a core composed of 97½ percent lead and 2½ percent antimony may also be used. The base of either bullet has a 9-degree taper, called a boattail. The over-all length of the M1 Bullet is 1.32 inches, and that of the M1 Alternative Bullet, 1.265 inches. The mouth of the cartridge case is crimped into the knurled cannelure at assembly and a minimum pull of 45 pounds is required to remove the bullet from the case.

External ballistics, maximum ra	ange (approx.)5,500) yd
Average maximum pressure	48,000 lb per so	q in.
Velocity:		

At 78 ft	
At 53 ft	
At muzzle	
Muzzle energy	2,675 ft-lb

Accuracy. Average of mean radii of all targets at 500 yards, not greater than 4.5 inches; at 600 yards, 5.5 inches, when fired from a Mann accuracy weapon. Dispersions obtained from firings under service conditions at all ranges are published in firing tables for the weapons in which this ammunition is used.

CARTRIDGE, Ball, Cal. .30, M2.

General. This cartridge is a current standard item of issue and is used in machine guns and rifles against personnel and light materiel targets.

Visual identification. Cartridges of recent manufacture cannot be readily distinguished from the M1 Cartridges by visual inspection, although this can be done by weight and date. Cartridges manufactured prior to September 20, 1940, could be readily distinguished from the M1 Cartridges by their tin-coated, gilding metal bullet jackets.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 396 grains.

The bullet consists of two parts, a lead alloy core, composed of 90 percent lead and 10 percent antimony, and a gilding metal jacket. An alternative bullet having a gilding metal jacket, and a core composed of $97\frac{1}{2}$ percent lead and $2\frac{1}{2}$ percent antimony may also be used. The base of the bullet retains its cylindrical shape to the base line. The over-all length of the M2 Bullet is 1.125 inches, and that of the M2 Alternative Bullet is 1.103 inches. A minimum pull of 45 pounds is required to remove the bullet from the case.

At 78 ft	
At 53 ft	
At muzzle	2,805 ft per sec

Accuracy (from accuracy rifle). Average of mean radii of all targets of 500 yards not greater than 6.5 inches; at 600 yards not greater than 7.5 inches.

CARTRIDGE, Armor-piercing, Cal. .30, M2.

General. This cartridge is a current standard item of issue and is fired from machine guns and rifles. It is designed for use against armored aircraft, armored vehicles, concrete shelters, and similar bullet-resisting targets.

Visual identification. This cartridge may be identified by the additional cannelure and the blackened tip of the bullet.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 414 grains.

The bullet consists of four parts: a gilding metal jacket, a tungsten chrome steel core, a lead "T"-shot point filler, and a gilding metal base filler. The over-all length of this bullet is 1.370 inches and its point is blackened for a distance of approximately %2 inch. The base of the bullet is cylindrical down to the base line where it has a slightly beveled edge. The mouth of the case is crimped into the cut cannelure at assembly, and a minimum pull of 45 pounds-is required to remove the bullet from the case.

External ballistics, maximum range (approx.)......3,500 yd Average maximum pressure...........50,000 lb per sq in, Velocity:

At 78 ft	
At 53 ft	2,730 ft per sec
At muzzle	

Accuracy. Average of mean radii of all targets at 500 yards, not greater than 9.0 inches; at 600 yards not greater than 10.0 inches.

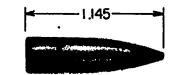
CARTRIDGE, Tracer, Cal. .30, M1.

General. This cartridge is a standard item of issue and is used in both machine guns and rifles. It is intended for use with either type of ammunition to show the gunner, by its trace, the path of the bullets. While tracer cartridges were primarily intended for machine gun use, there are cases wherein they can be advantageously used in rifles; for example, for signal and incendiary purposes, target designation, and range estimation.

Visual identification. The cartridge is readily identified by its characteristic red bullet point, red indicating the color of the trace.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 396 grains.

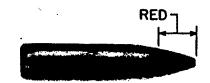
The bullet consists of four parts: a gilding metal jacket, a lead alloy slug, a tracer composition, and an igniter composition. The over-all length of this bullet is 1.45 inches and the point is painted red for a distance of approximately $\frac{5}{16}$ inch. It has a square base which contains the igniter composition which is ignited by the propel-



BULLET, BALL, CAL. .30, M2



BULLET, ARMOR-PIERCING, CAL. .30, M2



BULLET, TRACER, CAL. .30, M1

RA PD 4521

Figure 78a — Bullets, Cal. .30

ling charge when the cartridge is fired. The tracer composition burns with a bright red flame which enables the course of the bullet to be followed by the gunner. The mouth of the cartridge case is crimped into the knurled cannelure at assembly, and a minimum pull of 45 pounds is required to remove the bullet from the case.

Exterior ballistics, maximum range (approx.)......3,450 yd
Range of trace.....trace begins at a distance not greater than
125 yd from the weapon, and bullets continue tracing to 750 yd from the weapon

Average maximum pressure......50,000 lb per sq in. Velocity:

Accuracy. Average of mean radii of all targets at 600 yards less than 15 inches.

Trajectory. This ammunition is designed so that the bullet's trajectory will cross the trajectory of Ball M2, and AP, M2 Ammunition of the same caliber at approximately 600 yards.

CARTRIDGE, Incendiary, Cal. .30, M1.

General. This cartridge is a standard item of issue for machine guns.

A-BASE FILLER-GILDING METAL

B-COMPOSITION, IGNITER

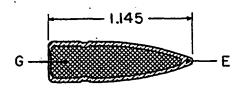
C-COMPOSITION, TRACER

D-CORE-TUNGSTEN CHROME STEEL

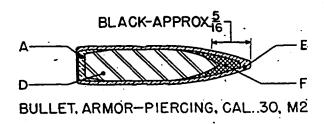
E-JACKET-GILDING METAL

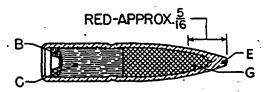
F-POINT FILLER-LEAD "T" SHOT

G-SLUG-LEAD WITH ANTIMONY



BULLET, BALL, CAL. .30, M2





BULLET, TRACER, CAL..30, MI.

RA PD 4511A

Figure 78b — Bullets, Cal. .30 — Sectioned

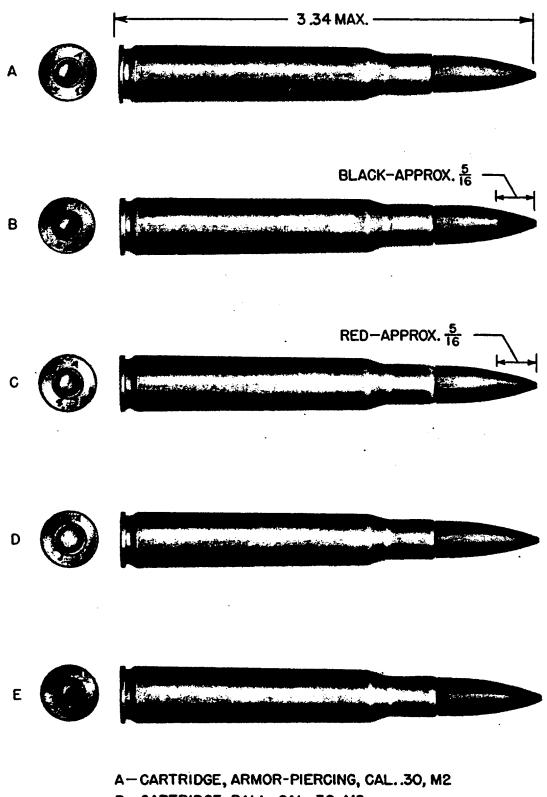
Visual identification. The cartridge resembles the CARTRIDGE, ball, cal. .30, M2, in outward appearance, but it may be identified by the light blue paint on the tip of the bullet.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet.

The bullet consists of four parts: a gilding metal jacket, a hollow steel cylindrical core, an incendiary composition, and a lead base filler. The mouth of the cartridge case is crimped into the knurled cannelure at assembly and a minimum pull of 45 pounds is required to remove the bullet from the case.

CARTRIDGE, Rifle Grenade, Cal. .30, M3.

General. This cartridge is used in cal. .30 Rifles, M1, M1903, M1903A1, and M1917, for discharging antitank rifle grenades. This



B-CARTRIDGE, BALL, CAL..30, M2

C-CARTRIDGE, TRACER, CAL..30, MI

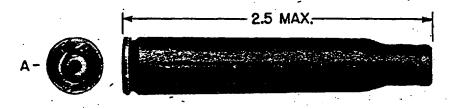
D-CARTRIDGE, BALL, CAL..30, MI

E-CARTRIDGE, BALL, CAL..30, M2, NATIONAL MATCH

RA PD 4522

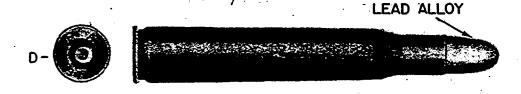
Figure 79a — Cartridges, Cal. .30

D-3













A-CARTRIDGE, BLANK, CAL..30, MI909

B-CARTRIDGE, DUMMY, CAL..30, M2

C-CARTRIDGE, DUMMY, CAL..30, MI906

D-CARTRIDGE, GUARD, CAL..30, MI

E-CARTRIDGE, GUARD, CAL..30, M1906

F-CARTRIDGE, HIGH PRESSURE TEST, CAL..30, MI

Figure 79b — Cartridges, Cal. .30 — Continued

cartridge must not be used in lieu of the cal. .30, M1909 Blank Cartridge in automatic weapons, nor should it be fired in the direction of personnel.

Visual identification. This cartridge may be identified by the absence of a bullet and by the 5-petal rose crimp in the mouth of the case.

Components. The cartridge consists of a cartridge case, primer, and propelling charge, having no bullet. The complete assembly weighs approximately 246 grains.

The case is the same as the standard cal. .30 case except for a cannelure located about ½ inch from the mouth. A wad is seated immediately above the cannelure after the propelling charge has been inserted. A drop of red lacquer is applied to the wad, and the mouth of the case is closed by crimping in the shape of a 5-leaf rosette. The cartridge is first loaded with a charge of 5 grains of black rifle powder, then with a progressive-burning small-arms powder.

Exterior ballistics. The cartridge, grenade, cal. .30, M3, is loaded to obtain a grenade velocity of 165 feet per second at 5.5 feet.

CARTRIDGE, Blank, Cal. .30, M1909.

General. This cartridge is a current standard item of issue and is used in the U: S. Rifles, M1903 and M1917, for simulated fire during maneuvers, for signaling purposes, and for firing salutes. It is also used in the machine guns and automatic rifles equipped with blank firing attachments, in order to operate these weapons for instructional purposes.

Visual identification. It is readily identified since it has no bullet, and furthermore, a cannelure is present in the neck of the cartridge case.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and a paper cup or wad of thin paper. Prior to January, 1925, a felt wad was used but was discontinued due to accidents caused by the clogging of gas escape holes in the blank firing attachment of machine guns and automatic rifles. The complete assembly weighs approximately 207 grains.

The cartridge case differs from the standard cal. .30 cartridge case described previously, only in that the neck has a cannelure and that the mouth is slightly rounded. Second class cartridge cases having small dents, scratches, or other minor defects may be used in the assembly of this ammunition.

The propelling charge for this cartridge differs from the standard cal. 30 propelling charge in that E. C. Blank Fire Powder is used in place of the standard smokeless powder.

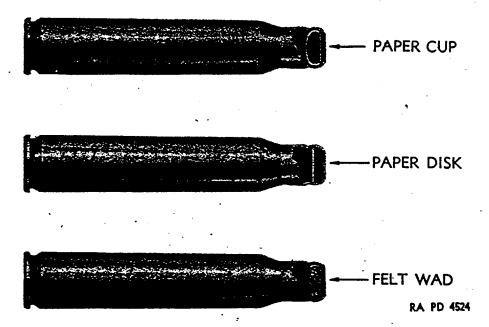


Figure 80 — Blank Cartridges — Necks in Section Showing Wads

The paper wad or cup is inserted in the neck against the cannelure and sealed in place with a few drops of shellac. The mouth of the case is roll-crimped to keep the wad in place.

CARTRIDGE, Gallery Practice, Cal. .30, M1919.

General. This cartridge is now superseded by the cal. .22 ball cartridge long rifle for gallery practice. Stocks on hand, however, are retained for guard purposes, for use when the supply of CARTRIDGE, guard, cal. .30, M1906, is exhausted. Cartridges of older manufacture are labeled cartridge, gallery practice, but new manufacture will be designated CARTRIDGE, guard, cal. .30, M1. This cartridge is described under that heading.

CARTRIDGE, Guard, Cal. .30, M1.

General. This cartridge was formerly the CARTRIDGE, gallery practice, cal. .30, M1919. It is now standard for guard purposes, and is used only in the cal. .30 rifle.

Visual identification. It is easily identified by its short, round nose, lead bullet.

Components. The cartridge consists of a cartridge case, primer, propelling charge and bullet. The complete assembly weighs approximately 346 grains.

The bullet is composed of a lead alloy and has a round nose and a cylindrical base. Its over-all length is approximately 0.815 inch and it has two knurled cannelures. A pull of not less than 45 pounds is required to remove the bullet from the case.

Exterior ballistics, maximum range (approx.)............2,500 yd Average maximum pressure........................15,000 lb per sq in.

Velocity:	
At 53 ft	1,100 ft per sec
At muzzle	1,200 ft per sec
Muzzle energy	376 ft-lb
Accuracy. At 100 yards, the grou	p diameter will be not greater
than 6 inches.	

CARTRIDGE, Guard, Cal. .30, M1906.

General. This cartridge is a limited standard item of issue and is used in the cal. .30 rifle for guard purposes. Second class bullets and cartridge cases may be used in the assembly of this cartridge.

Visual identification. This cartridge is readily identified by its six short corrugations, called flutes, just below the neck of the cartridge case.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs 355 grains.

The cartridge case is essentially the same as the cal. .30 case previously described, except that it has six short flutes or corrugations just below the neck.

The bullet consists of a cupronickel jacket encasing a lead alloy slug. It has a cylindrical base.

Exterior ballistics, maximum range (approx.).	2,000 yd
Average maximum pressure	15,000 lb per sq in.
Muzzle velocity	1,200 ft per sec
Muzzle energy	479 ft-lb

CARTRIDGE, Dummy, Cal. .30, M1906.

General. This cartridge is a current standard item of issue and is used for training personnel in the operation of loading and unloading rifles, and simulating rifle fire. Prior to January 15, 1340, this cartridge was assembled only with the M1906 Bullet. Since then, however, it has been permissible to also use either the M2 or M1 Ball Bullet.

Visual identification. There are six longitudinal corrugations on the tinned cartridge case. Before January 15, 1940, the cartridge case contained an inert primer and three holes, 0.125 inch in diameter, drilled through the case in alternate corrugations. Since that date, the cartridge has been assembled without a primer and the holes are omitted.

Components. The cartridge consists of a cartridge case and a bullet. The complete assembly weighs 339 grains when assembled with either the M2 or M1906 Bullet, and 363 grains when assembled with the M1 Ball Bullet. Second class components are used in the car-

	1				
Cartridge Cal30	Status	Primer Cup	Cartridge Case	Ogive	Base
BALL M1	S	Brass	Brass	Pointed	Tapered
BALL M2	S&M	Brass	Brass	Pointed	Square
TRACER M1	S&M	Brass	Brass	Pointed	Square
ARMOR-PIERCING M2	S&M	Brass	Brass	Pointed	Square
INCENDIARY M1	S&M	Brass	Brass	Pointed	Square
RIFLE GRENADE M3	S&M	Brass	Brass		
BLANK M1909	S&M	Brass	Brass		
GALLERY PRACTICE M1919	s	Brass	Brass	Rounded	Square
GUARD M1906	S	Brass.	Brass (6 Flutes)	Pointed	Square
GUARD M1	S&M	Brass	Brass	Rounded	Square
DUMMY CORR. M1906 (Prior to 1-15-40)	S	Brass	Brass(tinned) 6 Corrugations 3 Holes	Pointed	Square
DUMMY CORR. M1906 (After 1-15-40)	S&M		Brass(tinned) 6 Corruga- tions No Holes		
DUMMY SLOTTED M1		Inert	Brass 1 Slot near head	Pointed	Tapered
DUMMY M2	S&M		Brass(tinned) No Slot	Pointed	Square
HIGH-PRESSURE TEST M1		Вгаss	Brass(tinned) "TEST" on head	Pointed	Square

BULLE	T				
Jacket	Point Filler	Core	Base Filler	REMARKS	
Gilding Metal		Lead Antimony		Cartridge case has numerals "25" and above on head	
Gilding Metal		Lead Antimony		Cartridge case has numerals "38" and above on head (38- 40 jacket tinned, 40-up not tinned)	
Gilding Metal	Lead Antimony	Tracer Mixture	Igniter Mixture	Tip of bullet painted red	
Gilding Metal	Lead (T Shot)	Tungsten Chrome Steel	Gilding Metal	Tip of bullet painted black	
Gilding Metal		Incendiary Mixture		Tip of bullet painted blue	
				Mouth rose crimped	
			-	Mouth roll crimped	
		Lead			
Cupronickel		Lead Antimony			
		Lead		`	
Cupronickel		Lead Antimony			
				May use M1906, M1, or M2 Bullets	
Gilding Metal	-	Lead Antimony		Range dummy	
Gilding Metal		Lead Antimony		Used in inspection of weapons Not issued to troops	
Gilding Metal		Lead		Used to test for breech pressure Not issued to troops	

tridge assembly. The cartridge case is essentially the cal. .30 case described previously, but is corrugated and tinned for identification purposes.

CARTRIDGE, Dummy, Cal. .30, M1.

General. This cartridge is a standard item of issue for use when assembled in clips with live ammunition on the range for detecting and correcting flinching and faulty trigger squeeze. The use of these cartridges in rifle practice requires that they be mixed with service cartridges without visual detection by personnel. They must therefore closely resemble the service cartridges with which they are mixed. The primers are inert and the cartridge cases do not contain a powder charge.

Visual identification. These cartridges are identified by a longitudinal slot, 0.06 inch wide, cut in the body of the case beginning at the extractor groove and continuing to a point approximately 0.687 inch from the head. The depth of this slot tapers from 0.03 inch at the extractor groove to 0.0 inch at the end farthest from the head of the case. When this ammunition is assembled in clips with service ammunition, the slot is hidden from view by turning it toward the adjoining cartridge.

Components. The cartridge consists of a cartridge case, inert primer, and bullet. The bullet may be either the M2 or M1 Ball Bullet depending on the type which is to be simulated. When using the M2 Ball Bullet, the complete assembly weighs approximately 340 grains. When using the M1 Ball Bullet, the complete assembly weighs approximately 364 grains. Second class components are generally used in the assembly of these cartridges.

CARTRIDGE, Dummy, Cal. .30, M2.

General. This cartridge is used only in the inspection of weapons and will not be issued to the service.

Visual identification. This cartridge is easily identified by its tinned brass cartridge case and the absence of a primer. It differs from the Dummy M1906 in not having corrugations in the case.

Components. The cartridge consists of a cartridge case, and bullet. Second class components may be used in the assembly of this cartridge. The complete assembly weighs approximately 341 grains.

The cartridge case is the same as the standard cal. .30 case except that it is tinned for identification purposes.

The bullet consists of a gilding metal jacket encasing a lead alloy core. It is a ball M2 Bullet, and prior to September 20, 1940, was tin-coated for further identification.

CARTRIDGE, High-pressure, Test, Cal. .30, M1. This cartridge is used for proof-firing rifles, automatic rifles, and machine guns. It is loaded with a powder charge sufficient to give a breech pressure of approximately 68,000 pounds per square inch. Due to this excessive pressure, and the consequent danger involved in firing, the guns under test are fired from a fixed rest under a hood by means of a mechanical firing device. This cartridge may be fired only by authorized personnel.

Visual identification. This cartridge is identified by its tinned cartridge case. Some models have the word "Test" stamped on the head.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 433 grains.

The cartridge case is the same as those used in the service cartridges and is further identified by being tinned.

The bullet consists of a gilding metal jacket encasing a hardened lead core, and has a cylindrical base. Its over-all length is 1.235 inches. The mouth of the case is crimped into the knurled cannelure at assembly and a pull of not less than 40 pounds is required to remove the bullet from the case.

AMMUNITION, CAL. .45.

General. The ammunition described in this discussion is designed for use in all standard revolvers, pistols, and submachine guns of cal. .45. It includes cartridges of the following types: ball, tracer, blank, dummy, and high-pressure test.

CARTRIDGE, Ball, Cal. .45, M1911.

General. This cartridge is a current standard item of issue and is used in the Automatic Pistol M1911 and M1911A1, the Colt Revolver M1917, the Smith and Wesson Revolver M1917, and the Thompson Submachine Gun M1928 and M1928A1 against personnel. To adapt it for use in the revolvers, it must be assembled in clips designed for this purpose.

Components. The cartridge consists of the cartridge case, primer, propelling charge, and the bullet. The complete assembly weighs approximately 327 grains.

The bullet has a round nose and a flat base. It consists of two parts, a gilding metal jacket and a slug of lead hardened with antimony. In early designs, bullet jackets were made of cupronickel and these have a silvery appearance. This was later changed to gilding metal which was given a thin tin wash which has a close resemblance to the cupronickel jacket. The practice of tinning the jackets has since been discontinued and the bullets of current design have the natural copper color of gilding metal. The over-all length of the

bullet is 0.68 inch. The mouth of the case may be crimped to the bullet and a pull of approximately 40 pounds is required to remove the bullet from the case.

Exterior ballistics, maximum range:

In pistol	1,600 yd
In submachine gun	1,700 yd
Pressure14,000	lb per sq in.
X7-1	

Velocity:

Pistol:

At 25.5 ft	820 ft per sec
At muzzle	825 ft per sec
• · · · · • • • · · · · · · · · · · · ·	

Submachine gun:

At 25.5 ft	• • • • • • • • • • • • • • • • • • • •	885 ft per sec
At muzzle		990 ft per sec
zzle energy:	•	•

Mu₂

In	pistol		329 ft-lb
In	submachine gui	1	383 ft-lb

CARTRIDGE, Tracer, Cal. .45, M1.

General. This cartridge was a standard item of issue for use in the Thompson Submachine Gun M1928A1 for observation of fire and incendiary purposes. It was also used for signal purposes in the automatic pistol. The M1 Cartridges have now been declared grade 3 and are not to be issued.

Visual identification. The cartridge is readily identified by its red tipped bullet, and the fact that the cartridge case has no cannelure.

Components. The cartridge consists of the cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 303 grains.

The bullet has a round nose and a cylindrical base. It consists of four parts: a gilding metal jacket, which is painted red for approximately 3/16 inch from the tip; a slug of lead hardened with antimony in the forward portion of the jacket; a tracer mixture in the central portion; and an igniter mixture in the rear portion. The over-all length of the bullet is 0.857 inch. The case may be crimped to the bullet and a pull of approximately 40 pounds is required to extract the bullet from the case.

Exterior ballistics, average maximum pressure....18,000 lb per sq in. Velocity, from submachine gun, at 25.5 ft............975 ft per sec Range of trace......200 yd

Accuracy. Fires within a mean radius of 8 inches at 100 yards.

CARTRIDGE, Blank, Revolver, Cal. .45, M1.

General. This cartridge is a current standard item of issue for use in the Colt, and Smith and Wesson, cal. .45 Revolvers M1917. It is

used for signaling purposes, firing salutes, training cavalry horses, and in maneuvers where simulated fire is desired. It is fired from the revolver without the use of clips, as the cartridge case has a rim for extracting purposes.

Visual identification. This cartridge is identified by the absence of a bullet.

Components. The cartridge consists of the cartridge case, primer propelling charge, and a paper wad. The complete assembly weighs approximately 123 grains.

The cartridge case differs from the standard cal. .45 cartridge case in that it is heavier and has a rim for extracting purposes.

The paper wad, inserted over the powder charge, is sealed in with a coat of varnish, and the mouth of the case is roll crimped to a diameter of $\frac{5}{16}$ inch.

CARTRIDGE, Dummy, Cal. .45, M1921.

General. This cartridge is a current standard item of issue and is used for training personnel in the operation of loading and unloading revolvers and to simulate firing. It is also used as a range dummy cartridge in the automatic pistol. In this latter case, it is mixed with live ammunition in pistol magazines, the purpose being to detect and correct flinching and faulty trigger squeeze.

Visual identification. This cartridge is identified by its tinned case which either has no primer or has holes drilled in the side of the case.

Components. The cartridge consists of a cartridge case, and a bullet. The complete assembly weighs approximately 313 grains.

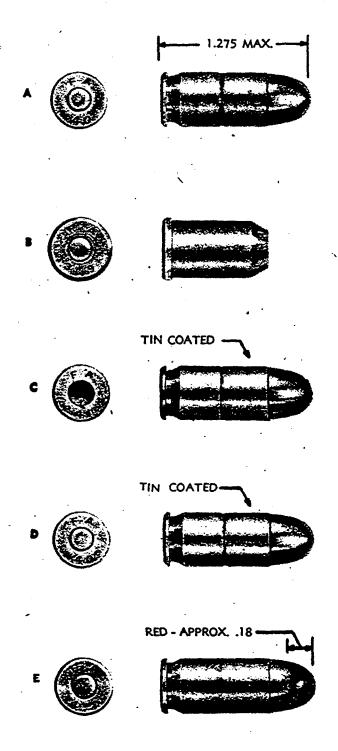
The case of the earlier design contained three ½-inch holes drilled in the body of the case, equally distant from each other, and an inert primer. In later design, the holes and the inert primer are omitted. Both cases are tinned for further identification.

The bullet is the same as that in the CARTRIDGE, ball, M1911.

CARTRIDGE, High-pressure Test, Cal. .45, M1.

General. This cartridge is used for proof-firing cal. .45 weapons at the place of their manufacture. It contains a powder charge that will develop a breech pressure of approximately 20,000 pounds per square inch, this pressure being 4,000 pounds in excess of that required in cal. .45 service ammunition. Due to the danger involved in firing this cartridge, it should only be fired from a fixed rest under a hood, by means of a mechanical firing device, and only by authorized personnel.

Visual identification. It is readily identified by its tinned cartridge case.



A -- CARTRIDGE, BALL, CAL. .45, M1911

B - CARTRIDGE, BLANK, REVOLVER, CAL. .45, M1

C - CARTRIDGE, DUMMY, CAL. .45, M1921

D - CARTRIDGE, HIGH PRESSURE TEST, CAL. .45, MI

E-CARTRIDGE, TRACER, CAL. .45, MI

RA PD 4525

Figure 81 — Cartridges, Cal. .45

Components. The cartridge consists of the cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 327 grains.

The bullet is the same as that in the CARTRIDGE, ball, M1911.

AMMUNITION, CAL. .50.

General. The ammunition described in this discussion is designed for use in all cal. .50 machine guns. It includes cartridges of the following types: ball, armor-piercing, tracer, incendiary, blank, dummy, and high-pressure test.

CARTRIDGE, Ball, Cal. .50, M2.

General. This cartridge is a standard cartridge for all cal. .50 machine guns.

Visual identification. This cartridge does not have any identification markings and the tip of the bullet is not painted.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs 1,800 grains.

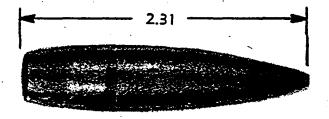
Accuracy. At the time of acceptance, this ammunition will group within mean radii not greater than 8.0 inches at 500 yards, or 9.0 inches at 600 yards, when fired from an accuracy rifle held in a V-block.

CARTRIDGE, Armor-piercing, Cal. .50, M2.

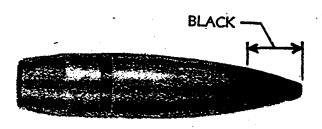
General. This cartridge is a current standard item of issue for all cal. .50 machine guns. It is designed for use against armored aircraft, armored vehicles, concrete shelters, and similar bullet-resisting targets.

Visual identification. This cartridge may be identified by the blackened tip of the bullet.

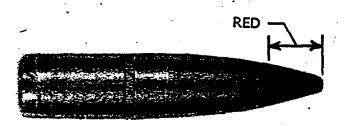
Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 1,800 grains.



BULLET, BALL, CAL. .50, M2



BULLET, ARMOR-PIERCING, CAL. .50, M2



BULLET, TRACER, CAL. .50, M1

RA PD 4526

Figure 82a — Bullets, Cal. .50

The bullet consists of three parts: a gilding metal jacket; a tungsten-chrome steel core; and a point filler of lead hardened with antimony. The over-all length of the bullet is 2.29 inches and the point is blackened for approximately %16 inch. The base has a 9-degree taper beginning 0.386 inch from the base. The mouth of the case is crimped into the cannelure at assembly, and a minimum pull of 100 pounds is required to extract the bullet from the case.

Exterior ballistics maximum range (approx)

SMALL ARMS AND TRENCH WARFARE

A-COMPOSITION, IGNITER

B-COMPOSITION, SUB-IGNITER

C-COMPOSITION, TRACER

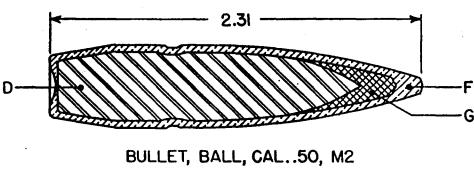
D-CORE-STEEL

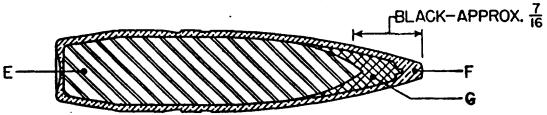
E-CORE-TUNGSTEN CHROME STEEL

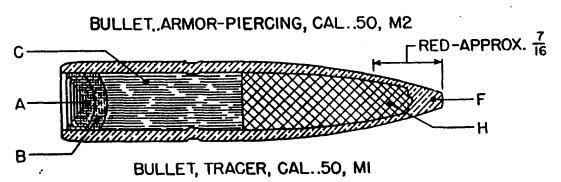
F-JACKET-GILDING METAL

G-POINT FILLER-LEAD WITH ANTIMONY

H-SLUG-LEAD WITH ANTIMONY



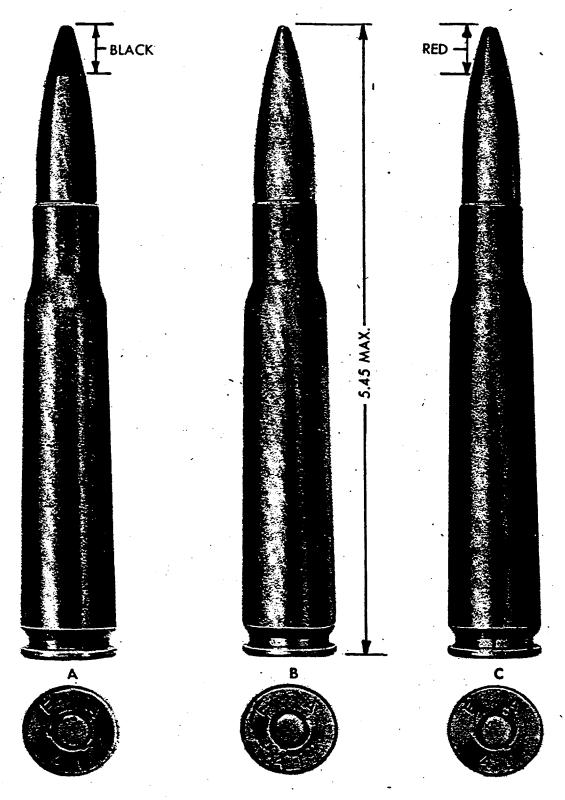




RA PD 4512

Figure 82b — Bullets. Cal. .50 — Sectioned D-3

AMMUNITION INSPECTION GUIDE



A-CARTRIDGE, ARMOR-PIERCING CAL. .50, M2

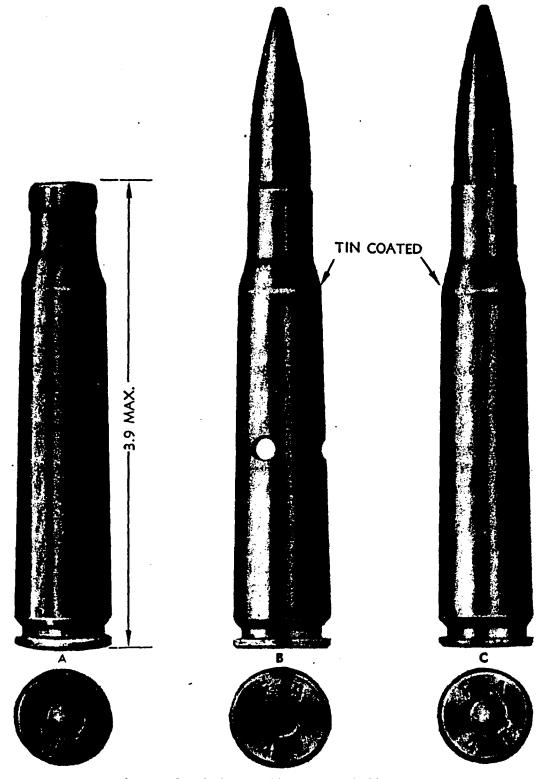
B-CARTRIDGE, BALL, CAL. .50, M2

C-CARTRIDGE, TRACER, CAL. .50, M1

Figure 83 — Cartridges, Cal. .50

RA PD 2117

SMALL ARMS AND TRENCH WARFARE



A - CARTRIDGE, BLANK, CAL. .50, M1

B - CARTRIDGE, DUMMY, CAL. .50, M2

C - CARTRIDGE, HIGH PRESSURE TEST, CAL. .50, M1

RA PD 4530

Figure 84 — Cartridges, Cal. .50 — Continued

AMMUNITION INSPECTION GUIDE

Accuracy. At the time of acceptance, this ammunition will group within a mean radius not greater than 8.0 inches at 500 yards, or 9.0 inches at 600 yards.

CARTRIDGE, Tracer, Cal. .50, M1.

General. The cartridge is standard for observation of fire in all cal. .50 machine guns. It may also serve as an incendiary against balloons and other readily inflammable targets. Care must be exercised in the use of this cartridge to guard against its igniting dry vegetation on the range.

Visual identification. This cartridge may be distinguished by the point of the bullet, which is painted red to indicate the color of the trace.

Components. The cartridge consists of cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 1,760 grains.

The bullet consists of five parts: a gilding metal jacket; a hardened lead slug which fills the forward end of the jacket; a tracer composition which fills the central portion; an igniter; and subigniter composition, which fills the rear portion. Unlike the bullets for armor-piercing and ball cartridges, this bullet is cylindrical to the base. The base is open to permit the propelling charge to ignite the tracer composition. The over-all length of the bullet is 2.4 inches. The mouth of the case is crimped into the cannelure at assembly, and a minimum pull of 100 pounds is required to extract the bullet from the case.

Exterior ballistics, maximum range:

Bullet	
Trace	The trace begins at a distance not greater than 250 feet
•	from the weapon; the range of the trace is about
-	1,600 yards.

Maximum	pressure	52,000 lb per	sq in.
Velocity:		· · · · · ·	_

At 78 ft	••••••	2,830 ft per sec
At muzzle	• • • • • • • • • • • • • • • • • • • •	2.865 ft per sec

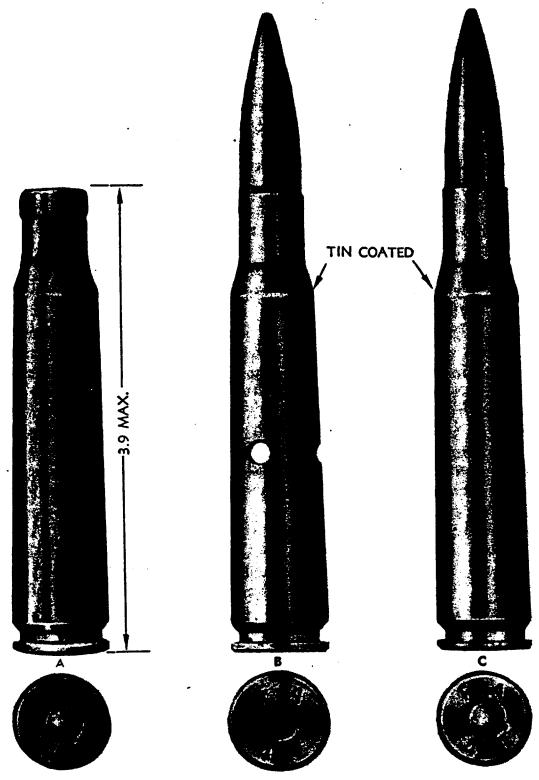
Accuracy. At the time of acceptance, 'this ammunition will group within a mean radii not greater than 20 inches at 600 yards.

CARTRIDGE, Incendiary, Cal. .50, M1.

General. This cartridge is a standard item of issue for use in cal. .50 machine guns.

Visual identification. The cartridge resembles the CARTRIDGE, ball, cal. .50, M2, in outward appearance, but it may be identified by the light-blue paint on the tip of the bullet.

SMALL ARMS AND TRENCH WARFARE



A -- CARTRIDGE, BLANK, CAL. .50, M1

B -- CARTRIDGE, DUMMY, CAL. .50, M2

C - CARTRIDGE, HIGH PRESSURE TEST, CAL. .50, M1

RA PD 4530

Figure 84 — Cartridges, Cal. .50 — Continued

AMMUNITION INSPECTION GUIDE

Accuracy. At the time of acceptance, this ammunition will group within a mean radius not greater than 8.0 inches at 500 yards, or 9.0 inches at 600 yards.

CARTRIDGE, Tracer, Cal. .50, M1.

General. The cartridge is standard for observation of fire in all cal. .50 machine guns. It may also serve as an incendiary against balloons and other readily inflammable targets. Care must be exercised in the use of this cartridge to guard against its igniting dry vegetation on the range.

Visual identification. This cartridge may be distinguished by the point of the bullet, which is painted red to indicate the color of the trace.

Components. The cartridge consists of cartridge case, primer, propelling charge, and bullet. The complete assembly weighs approximately 1,760 grains.

The bullet consists of five parts: a gilding metal jacket; a hardened lead slug which fills the forward end of the jacket; a tracer composition which fills the central portion; an igniter; and subigniter composition, which fills the rear portion. Unlike the bullets for armor-piercing and ball cartridges, this bullet is cylindrical to the base. The base is open to permit the propelling charge to ignite the tracer composition. The over-all length of the bullet is 2.4 inches. The mouth of the case is crimped into the cannelure at assembly, and a minimum pull of 100 pounds is required to extract the bullet from the case.

Exterior ballistics, maximum range:

Bullet				 		3,5	600 yd
Trace							
			weapon;		_		
•.	. 1,600	yaı	ds.				• .

Maximum	pressure		52,000 lb	per sq in.
Velocity:				

At 78 ft		2,830 ft per sec
At muzzle	· • • • • • • • • • • • • • • • • • • •	2,865 ft per sec

Accuracy. At the time of acceptance, 'this ammunition will group within a mean radii not greater than 20 inches at 600 yards.

CARTRIDGE, Incendiary, Cal. .50, M1.

General. This cartridge is a standard item of issue for use in cal. .50 machine guns.

Visual identification. The cartridge resembles the CARTRIDGE, ball, cal. .50, M2, in outward appearance, but it may be identified by the light-blue paint on the tip of the bullet.

SMALL ARMS AND TRENCH WARFARE

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet.

The bullet consists of four parts: a gilding metal jacket; a hollow steel cylindrical core; an incendiary composition; and a lead base filler. The mouth of the cartridge case is crimped into the knurled cannelure at assembly, and a minimum pull of 100 pounds is required to remove the bullet from the case.

Exterior ballistics—This information is not available at this time.

CARTRIDGE, Blank, Cal. .50, M1.

General. The CARTRIDGE, blank, cal. .50, M1, is a standard item of issue designed for use in cal. .50 machine guns with a blank firing attachment in order to operate the weapon for training purposes.

Visual identification. This cartridge is identified by the absence of a bullet.

Components. This cartridge consists of a cartridge case, primer, propelling charge, and wad.

The case has a slight annular groove about ¼ inch from the mouth, which serves as a seat for the wad.

The wad is a disc punched out of strawboard sheet, $\frac{1}{16}$ inch thick, and is lacquered on both sides before the blanking operation.

The powder charge consists of 43 grains of E. C. Blank Fire Powder. After loading, a heavy coat of lacquer is applied to the wad and the mouth is crimped.

CARTRIDGE, Dummy, Cal. .50, M2.

General. This cartridge is standard for use in all cal. .50 machine guns for training purposes. It may also be used for testing the mechanism of the gun.

Visual identification. This cartridge is distinguished from live ammunition by the cartridge case, which is tin-coated, has three holes drilled in the side and an empty primer pocket. It is distinguished from the CARTRIDGE, dummy, cal. .50, M1, by the bullet which is tin-coated.

Components. This cartridge consists of a cartridge case, and a bullet.

The cartridge case is identical with service cases except, as noted above, it is tin-coated and has three holes drilled about the midpoint.

The bullet consists of three parts: a tin-coated gilding metal jacket, a soft steel core, and a point filler of hardened lead. The mouth of the case is crimped into the cannelure at assembly, and a minimum pull of 100 pounds is required to extract the bullet from the case.

AMMUNITION INSPECTION GUIDE

		Primer	Cartridge		
Cartridge' Cal50	Status	Cup	Case .	Ogive	Base
BALL M2	S&M	Brass	Brass	Pointed	Tapered
TRACER M1	S&M	Brass	Brass	Pointed	Square
ARMOR-PIERCING M2	S&M	Brass	Brass	Pointed	Tapered
INCENDIARY MI	S&M	Brass	Brass	Pointed	Tapered
DUMMY M2	S&M		Brass(tinned) 3 Holes	Pointed	Tapered
BLANK M1	s	Brass	Brass		
HIGH-PRESSURE TEST M1		Brass	Brass(tinned) "TEST" on head	Pointed	Square

Cartridge		Primer Cup	Cartridge		
Cal45	Status		Case	Ogive	Base
BALL M1911	S&M	Gilding Metal	Brass	Rounded	Square
TRACER M1	S&M	Gilding Metal	Brass	Rounded	Square
DUMMY M1921	S&M	Inert None	3 Holes* No Holes*	Rounded	Square
BLANK MI	S&M	Gilding Metal	Brass Has extract- ing flange		
HIGH-PRESSURE TEST M1		Gilding Metal	Brass(tinned) "TEST" on head	Rounded	Square

SMALL ARMS AND TRENCH WARFARE

BULLE	T				
Jacket	Point Filler	Core	Base Filler	REMARKS	
Gilding Metal	Lead Antimony	Soft Steel		·	
Gilding Metal	Lead Antimony	Tracer Mixture	Igniter Subigniter	Tip of bullet painted red	
Gilding Metal	Lead Antimony	Tungsten Chrome Steel	,	Tip of bullet painted black	
Gilding Metal		Incendiary Mixture		Tip of bullet painted blue	
Gilding Metal (tinned)	Lead Antimony	Soft Steel			
Gilding Metal		Lead Slug in two parts		Used to test for breech pressure Not issued to troops	

BULLE	T				
Jacket	Point Core Filler		Base Filler	REMARKS	
Gilding Metal		Lead Antimony		Old jackets—cupronickel Next jackets—gilding metal— tinned Present jackets—gilding metal	
Gilding Metal	Lead Antimony	Tracer Mixture	Igniter	Tip of bullet painted red Used in submachine gun	
Gilding Metal		Lead Antimony		*Cartridge case is brass (tinned)	
				Fired in revolvers only	
Gilding Metal		Lead Antimony		Used to test for breech pressure Not issued to troops	

AMMUNITION INSPECTION GUIDE

CARTRIDGE, High-pressure Test, Cal. .50, M1.

General. The CARTRIDGE, high-pressure test, cal. .50, M1, is used for proof-firing cal. .50 machine guns at the place of manufacture. The cartridge is loaded with a powder charge sufficient to develop a breech pressure averaging 62,500 pounds per square inch for any 10 consecutive shots. Due to this excessive pressure and the danger involved in firing, the guns under test are fired from a fixed rest under a hood by means of a mechanical firing device. This cartridge should be fired only by authorized personnel.

Visual identification. This cartridge is distinguished from other cal. .50 cartridges by the tinned cartridge case. Dummy cartridges, which also have tinned cartridge cases, have holes drilled through the case.

Components. The cartridge consists of a cartridge case, primer, propelling charge, and bullet. The entire assembly weighs 1,980 grains.

The case is made of tinned cartridge brass; in other respects it is the same as the cases of other cartridges of this caliber.

The bullet consists of a gilding metal jacket and a core made up of two slugs, a front slug and a rear slug. The mouth of the case is crimped into the cannelure at assembly and a minimum pull of 100 pounds is required to extract the bullet from the case.

AMMUNITION, MISCELLANEOUS.

CARTRIDGE, Ball, Cal. .22, Long Rifle.

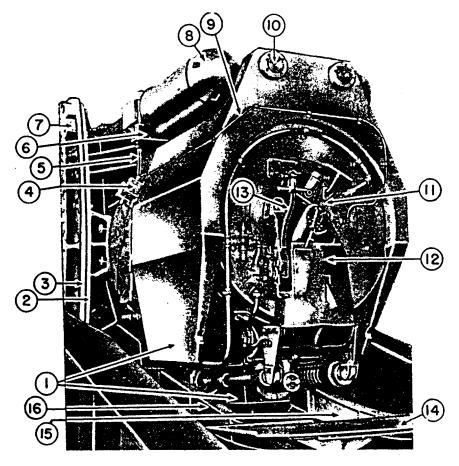
General. This cartridge has superseded the CARTRIDGE, cal. .30 gallery practice, M1919, and is used in the cal. .22 U. S. Rifles M1922, M1922MI, and M2, and in cal. .22 machine guns, machine-gun trainers, and pistols for gallery practice and training purposes.

Visual identification. Containers of this ammunition are marked by the manufacturer with the caliber, type, and such trade names as "Kleanbore," "Lubaloy," "Rustless," "Tackhole," "Copperhead," etc. Cal. .22 ammunition has the manufacturer's lot number stamped on the wooden packing box. This provides a means of identifying and reporting any ammunition of this type which may become defective.

Components. These cartridges are purchased by the Ordnance Department from several commercial manufacturers. They are all of the same general appearance, but differ slightly in the shape of bullet, powder used, and ballistic qualities. The cartridge, complete, weighs approximately 53 grains. It consists of cartridge case, priming composition, propelling charge, and bullet. The cartridge case is made of brass or gilding metal, and is of the rim-fire type; that is, the priming composition is spun into a circular recess inside the rim instead of being seated in the center of the case head as a separate component. A blow from the firing pin at any position on the rim

be operated by hand if the air compressor system fails. Like other guns of major caliber it is provided with a DeBange-type obturator.

(d) When the breechblock is closed, two cams [upper cam (fig. 40) and lower cam] and two corresponding rollers, attached to the rear surface of the breech and breechblock respectively, automatically initiate a rotary motion to the block causing its threaded sectors



- 1. Recoil band.
- 2. Left elevating bracket.
- 3. Left elevating rack.
- 4. Firing contactor.
- 5. Air manifold tubing to recuperator.
- 6. Air manifold assembly, recuperator system.
- 7. Left elevating stop.

- 8. Recuperator cylinder assembly.
- 9. Firing circuit cable.
- 10. Recuperator yoke rod.
- 11. Breechblock.
- 12. Breechblock carrier.
- 13. Breechblock-operating lever.
- 14. Loading platform.
- 15. Right loading platform beam.
- 16. Left loading platform beam.

Figure 24. Breechblock, closed position, 16-inch gun Mk. II M1.

to engage those of the breech recess. The completion of this rotary motion is automatically accomplished when the breechblock-operating lever is latched in the closed position. This action is brought about because the operating lever activates the connecting rod which in turn rotates the breechblock.

(4) Breechblock, 8-inch gun Mk. VI Mod. 3A2. The 8-inch gun Mk. VI Mod. 3A2, mounted on barbette and railway carriages, provides an example of a step-threaded, tray-supported breechblock (fig. 29). This breechblock contains sectors arranged in three groups, each group consisting of three step-threaded sectors and one plain

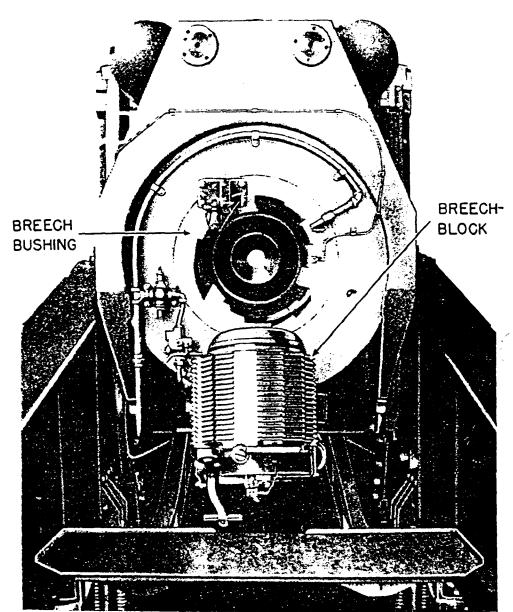
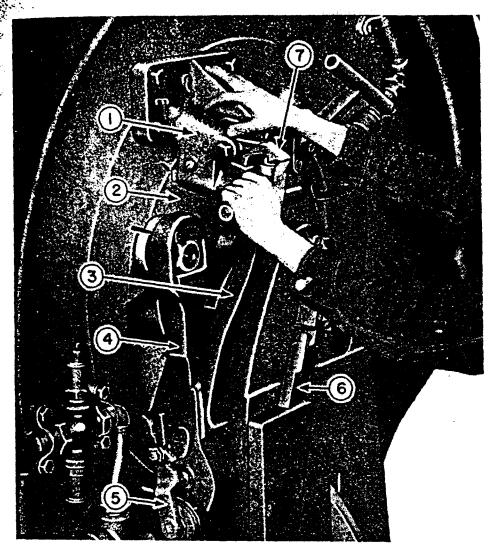


Figure 25. Breechblock, open position, 16-inch gun Mk. II M1.

sector. In closing the breech, a 1/12 or 30° revolution of the block is necessary to engage the threads in the breech recess. By turning the operating crank, three motions are given to the breech: rotation, to unlock it; translation, to pull it out of the gun onto the breechblock tray; and swing, to clear the breech of the tray and block. The tray is held in position against the breech by a latch when the breech



- 1. Salvo latch and upper rotating cam assembly.
- 2. Breechblock.
- 3. Breechblock-operating lever.
- 4. Connecting rod.
- 5. Firing-lock retracting lever.
- 6. Firing-lock operating bar.
- 7. Operating-lever latch.

Figure 26. Unlatching the breechblock-operating lever, 16-inch gun Mk. II M1.

closed. The latch also prevents the breechblock from sliding off the tray when the breech is open. Approximately four revolutions of the breech operating crank are required to open or close the breech, and the three motions are performed in a continuous operation (figs. 27, 28, and 29).

g. Breechblocks. 6-inch Guns M1903A2 and M1905A2. The ogival (Bofors) and tapered breechblocks, used on some of the 6-inch guns, are another means of obtaining a larger threaded area and at the same time permitting the block to be shortened. The ogival block (fig. 30), used on the M1903A2 gun, has six slotted and six threaded

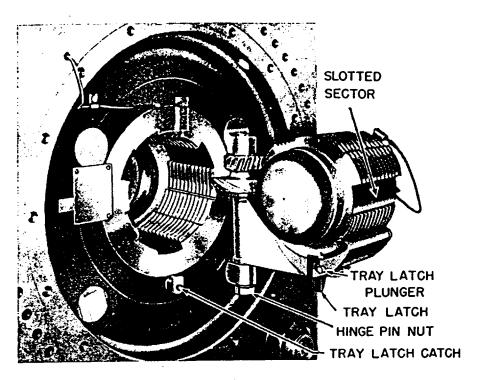


Figure 29. Breechblock and tray swung clear of the breech recess (swing), 8-inch gun Mk. VI Mod. 3A2.

segments. Because of its shape and slotted sectors, only a small retraction to the rear is necessary to swing the block open. The tapered block (fig. 31), employed on the M1905A2 gun, has six slotted and six threaded segments which facilitate its opening and closing in the same manner as the ogival block. Both types of breechblocks are carrier-supported, swinging to the right on a hinge mechanism attached to the right side of the breech. The breech mechanism for both model guns is of the lever-pull type. Two motions of the breechblock, rotation and swing, are involved in opening and closing.

15. Sliding-wedge Breechblock, 90-mm Gun

a. General. The sliding-wedge breechblock is well adapted for rapid-fire weapons with automatic methods of operation using fixed ammunition (par. 13). It is not used in our service with separateloading ammunition. It necessitates the use of a comparatively large breech section to withstand the stresses of firing, thus adding considerably to the weight of the gun. The mechanism employs a rectangular wedge-shaped block, securely seated in a slot cut in the breech of the gun, perpendicular to the bore, and operated by a hand or automatic crank or lever device. The motion of the block may be either horizontal or vertical. The latter is generally classified as the drop-block type. The 90-mm gun M1 (fig. 32) provides an excellent

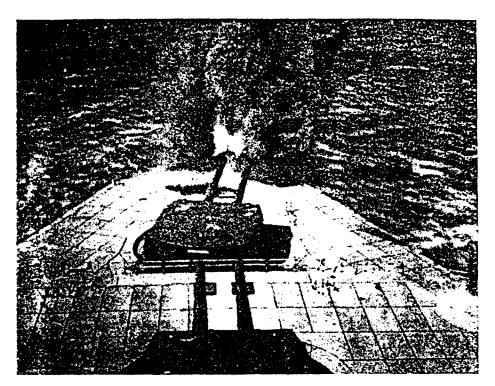


Figure 72. Turret emplacement.

35. Barbette Carriage, General Characteristics

- a. General. (1) According to a strict definition, a barbette criage is a fixed carriage on which a cannon is mounted to fire of a parapet (fig. 73). However, at the present time the term "be bette carriage" is used in a broader sense to refer to a fixed carriage (regardless of whether or not the cannon fires over a parapet which is capable of traversing through large angles except as limit by a protecting turret or casemate (figs. 70, 71, and 72). It makes also be considered as the support of the cannon, consisting of combination of several or all of the following major component cradle and recoil system, top carriage (upper movable part), botto carriage (lower fixed part), elevating mechanism, traversing mechanism, and loading mechanism (fig. 74).
 - (2) The advantages of such a carriage are:
 - (a) All-around fire—except as limited by emplacement.
 - (b) Elevations up to 65°.
 - (c) High-speed operation.
 - (d) Simplicity and ruggedness.
- (3) In all modern barbette installations the cannon is mounts in the cradle. Recoil and counterrecoil (recuperator) systems a mounted parallel to the cannon, so that recoil takes place parallel the axis of the bore regardless of the firing elevation.

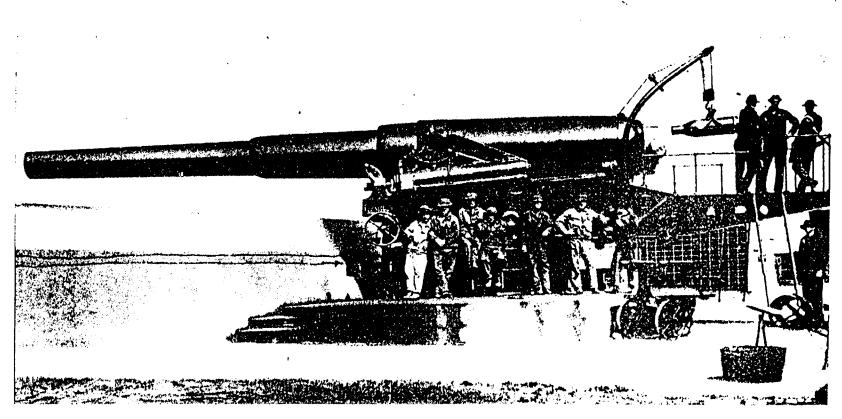
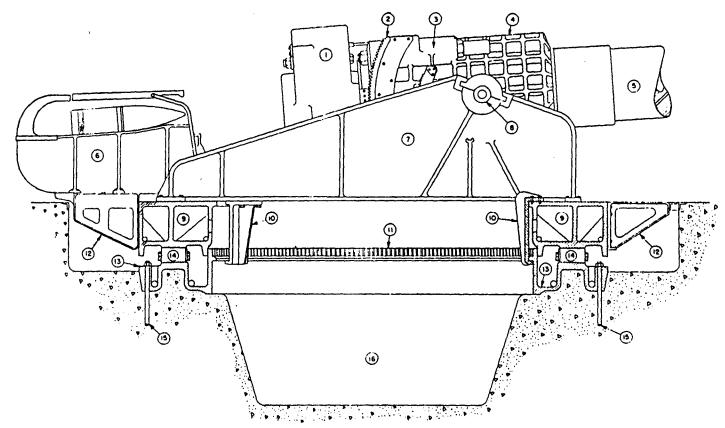


Figure 73. 12-inch gun barbette carriage M1892, now obsolete.



- 1. Recoil band.
- 2. Elevating rack.
- 3. Recoil cylinder.
- 4. Cradle.

- 5. Cannon.
- 6. Power rammer.
- 7. Side frame.
- 8. Cradle trunnion.

- 9. Racer.
- 10. Racer retaining clips.
- 11. Traversing rack.
- 12. Platform brackets.
- 13. Base ring.
- 14. Conical rollers.
- 15. Foundation bolts.
- 16. Recoil pit.

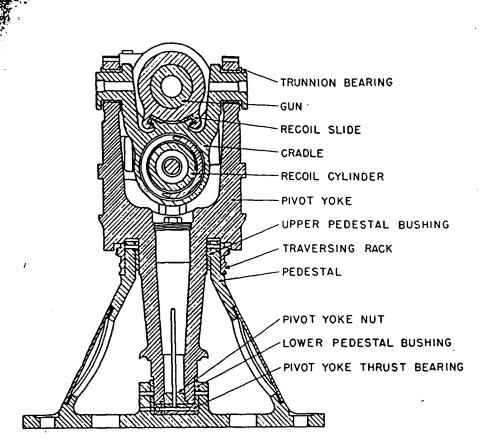


Figure 75. 3-inch gun barbette carriage M1903, pedestal type, sectional schematic drawing.

- b. Pedestal Type. One type of barbette carriage used with smaller caliber guns is called the pedestal type. The general characteristics of this type of mount are shown in figures 75 and 76. A conical pedestal is bolted to the concrete platform. A pivot yoke, free to revolve, is seated in the pedestal. The upward extending arms of the pivot yoke form seats for the trunnions of the cradle. The cradle supports the gun, which slides on the cradle in recoil. The weight of all the revolving parts is supported by roller bearings on a central base within the pedestal. The recoil and recuperator cylinder (or cylinders) is (are) located in the lower rear portion of the cradle. A conventional recoil brake, spring recuperators, and a dashpot counterrecoil buffer are usually used on this carriage. On the 6-inch gun carriage, the brackets (to which are attached gunners' platforms) which move with the gun in traverse are bolted to the arms of the pivot yoke on each side.
 - c. Characteristics of Mounts, Larger Caliber Cannon. In genral, the mount (fig. 74) for larger caliber cannon (as well as those or the 6-inch guns M1903A2 and M1905A2, barbette carriage M1) onsists of a heavy base ring (fig. 80) bolted to a concrete emplacenent and an upper carriage supporting the cannon and resting on he base. The upper carriage is capable of being moved in azimuth

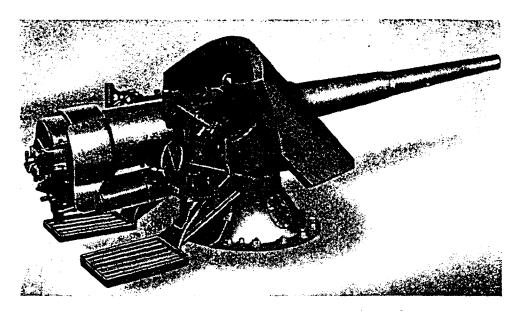
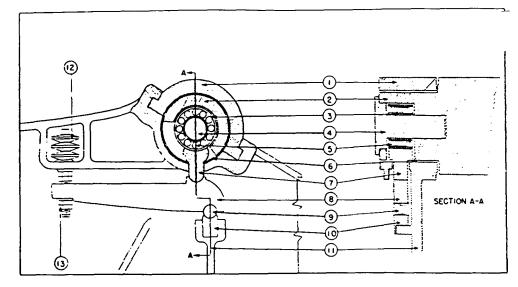


Figure 76.—6-inch gun barbette carriage M1900, pedestal type.

upon the base. That is, the top of the base ring forms a path upwhich are mounted conical rollers which support the superstructu and all traversing parts of the carriage. Resting on the rollers at revolving thereon is a racer (fig. 81) to which is bolted the upp carriage. To prevent the top carriage from tipping when the canon is fired, racer retaining clips (fig. 74) are provided to hold to racer down to the base ring. These clips, bolted to the racer, for a band which is lipped inward at the bottom to traverse in the barring groove. The trunnions (fig. 86) of the cradle rest in trunion bearings in the upper carriage, permitting movement of to cannon and cradle in elevation.

- d. Traversing and Elevating Mechanisms. (1) General. All cariages employ elevating and traversing mechanisms in order the they may be accurately set in elevation and direction. In most cariages of the same general design, these mechanisms have be standardized.
- (2) Traversing mechanisms. (a) Traversing mechanisms f major caliber weapons have, in most cases, become standardized the type shown in figure 74. This mechanism is, in effect, a gigan roller bearing with conical rollers operating between two bearingsurfaces (lower, called the base ring; upper, called the racer). The base ring, and concentric with it, is mounted a circular traversing rack (figs. 74, 80, and 108). A spur pinion, meshing with this race traverses the cannon. The efficiency of this system is illustrated the 16-inch gun mount which requires a force of only 27 pounds the traversing handwheel to traverse a mass of 660,000 pounds. A azimuth circle, also mounted concentrically with the racer, is privided for setting azimuth when firing at a target that cannot



- 1. Main trunnion bearing.
- 2. Main trunnion.
- 3. Bearing sleeve.
- 4. False trunnion.
- 5. Roller bearings.
- 6. Clearance.

- 7. Crutch.
- 8. Lever arm.
- 9. Fulcrum pin.
- 10. Fulcrum seat.
- 11. Carriage side frame.
- 12. Belleville springs.

13. Adjusting nuts.

Figure 77. Antifriction elevating device.

When the cannon has returned to firing position, the Bellev springs again float the cannon's weight clear of the main bearing, and the roller bearing allows the cannon to be depressed or elevated easily.

e. Power Rammer. Power loading is used on major calibe: weapons to increase the rapidity of fire and to insure uniform ram ming which promotes greater uniformity in developed muzzle velocities. The rammer (fig. 88) consists of a steel frame, on top o which is a rammer tray or loading trough, and a flexible nonbuckling steel chain which is actuated by a motor through the medium of a hydraulic speed gear. If the motor should fail, hand power is sup plied through two cranks located on the right and left sides of the rammer near the end. When the rammer is run forward, an un stroking device prevents the rammer head from advancing beyond a predetermined distance and returns the control lever to the neutra position. Likewise, on the withdrawal of the rammer an unstroking device performs the same functions. A spring buffer on the rammer head prevents excessive shock from injuring the mechanism. Ir operation, the movement of the rammer is controlled by means of a control lever. Raising or lowering the control lever from the neutral position puts the speed gear into operation.

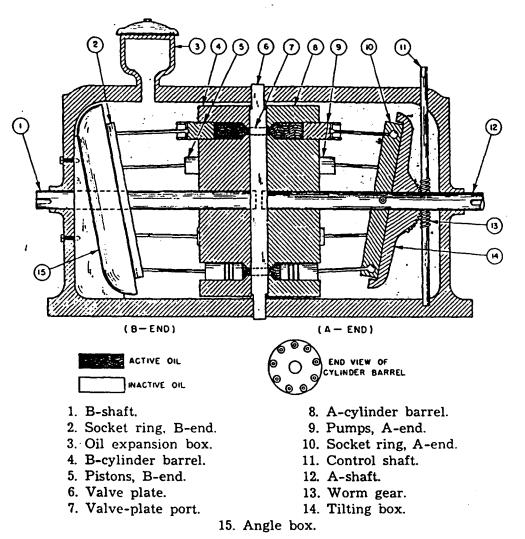


Figure 78. Waterbury hydraulic speer gear, simplified schematic drawing.

36. Elevating and Traversing Speed Control

- a. Waterbury Hydraulic Speed Gear. (1) Because electric motors for traversing, elevating, and ramming encounter maximum torque on starting, and because very fine variations in speed are necessary, conventional speed control is not satisfactory. Instead, the electric motor is allowed to run at its most efficient speed and is connected to the mechanism it is to operate through a Waterbury hydraulic speed gear. With this gear, any desired speed (either forward or backward) may be achieved while the driving motor runs continually at its designed speed in one direction.
- (2) An illustration of the elevating mechanism and hydraulic system for 6-inch guns M1903A2 and M1905A2, barbette carriage M1, is shown in figure 109. A schematic sketch of the Waterbury hydraulic speed gear appears in figure 78. The right side (A-end) of the case is the driving side (a variable-delivery pump rotated by an

electric motor at a constant speed); the left side (B-end) is the driven side (a fixed-stroke hydraulic motor). The nine small cylinders, with plungers, of the A-end are small pumps arranged a circular manner in the cylinder barrel. Oil fills all space within the case and valve plate that is not occupied by metal. A definite portion of the oil is enclosed within the cylinders ahead of the pistons and also within the port passages in the valve plate. It is this active oil, under pressure, which transmits the energy; the remaining or inactive oil is never under pressure and only serves as a supply for lubrication and replenishment. The tilting box, trunnioned in the case, does not rotate with the A-shaft but its angle of tilt may be changed as necessary to increase or decrease the amount of oil pumped through to the B-end. The A-socket ring is fixed to the A-shaft by a universal joint and rotates with it. The tilting box forms a guide or bearing for the A-socket ring. The socket ring is connected to the cylinders by connecting rods with ball joints at each end. The angle box in the B-end replaces the tilting box in the A-end and is always fixed in position at an angle of about 70°. Otherwise, the B-end is the same as the A-end. The two sides are connected by two valve-plate ports or by hydraulic piping as in the type shown in figure 109.

(3) As the A-shaft rotates the cylinder barrel and A-socket ring. more or less oil is pumped by the pumps, depending on the angle which the tilting box is set by the worm gear. As the A-cylin are moving down on the near side of the observer (fig. 78), oil is forced through the valve-plate port on this side into the B-cylinders of the near side. However, these cylinders cannot receive the oil unless their pistons move back. Thus, the backward movement is communicated to the inclined socket ring of the B-end through the reciprocating connecting rods, causing the B-shaft to rotate in a direction opposite to the rotation of the A-shaft. At the same time, the cylinders on the far side will draw oil through the port on the far side of the valve plate. The greater the tilt of the tilting box. the greater will be the stroke and the amount of oil pumped through to the driven side, and the faster the driven side shaft will rotate. As can be seen from the drawing, if the tilting box is tilted in the opposite direction, the driven shaft will rotate in the opposite direction; also, if the tilting box is perpendicular to the shaft, the pistons will not move with respect to their cylinders, there will be no oil pumped, and the driven side will remain stationary.

(4) By means of these gears a cannon may be elevated rapidly to its approximate elevation and then gently eased into its exact firing position; it may be depressed rapidly almost to horizontal and easily brought up against its stop for loading. An automatic stop is

Figure 79. 16-inch seacoast gun Mk. II M1, right side view.

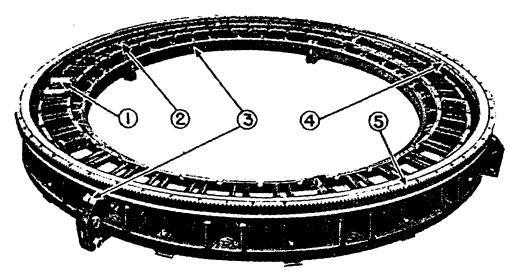
provided to prevent injury to the gun due to careless depressing. Similarly, the mount may be traversed at will and the rammer operated with differing speeds for ramming projectiles and powder charges.

- b. Remote Control System M14. (1) General. The remote control system M14 (Atlantic elevator equipment) is used on M2 and M4 6-inch gun carriages to supply controlled electric power for elevating the piece. This system performs the same function as the Waterbury hydraulic speed gear inasmuch as it eliminates torque in elevating and provides very fine regulations of elevating speed. In addition, the system may be operated so that it automatically sets the firing elevation as it is received over the data transmission system. Smooth speed control over a wide range is obtained by the use of a constant speed motor to drive a variable-voltage direct-current generator whose output is delivered to an elevating motor drive. In brief, the complete installation consists of the following major components:
- (a) A motor-generator set which consists of a 3-phase, 440-volt alternating-current induction motor rated at 10 horsepower, a variable-voltage direct-current generator, and an exciter for supplying the generator and motor field currents. The alternating-current induction motor drives the generator and exciter.
- (b) A motor drive, which is a 10-horsepower, variable-voltage, direct-current motor used to position the piece.
- (c) A control system, the indicator-regulator M2, which converts the position of the selsyn receivers on the mount into suitable generator voltage for positioning the gun.
- (2) Operation. (a) The elevating mechanism, when under automatic or semiautomatic control, is driven by the driving motor. The motor armature is supplied with direct-current voltage from the generator. This voltage may be varied both in amount and direction by the indicator-regulator. As a result, the motor armature turns in either direction at a speed proportional to the voltage supplied to it. The control elements of the indicator-regulator are positioned either by the data receivers or by the elevating handwheels. When the data receiver positions the control elements, operation is entirely automatic; whereas, when the handwheels position the control elements, the operation is semiautomatic (requires the elevation setter to operate the handwheels).
- (b) A special feature of the Atlantic elevator equipment is the provision for depressing the gun to the predetermined loading position by throwing a single switch. When the loading operation is completed, a throw of the switch in the other direction results in the gun being positioned quickly (when elevating equipment is oper-

ing automatically) at any elevation established by the elevation receiver. When operating semiautomatically, the elevation setter must return the piece to the firing elevation by rotating the handwheels to position the control elements.

37. Barbette Carriage M4

a. General. The barbette carriage M4, with its 16-inch gum Mk. II M1, manifests practically all of the outstanding features of our modern major caliber guns (figs. 71 and 79). This carriage is a modification of barbette carriage M1919 (fig. 70). Previous modifications are designated M1919M1, M2, and M3. The latest modification is known as the M5. The carriage is provided with a 4-inch cast shield.



1. Traversing roller.

- 3. Base ring.
- 2. Traversing roller distance ring.
- 4. Base ring pintle liner.
- 5. Traversing rack.

Figure 80. Base ring and distance ring (two traversing rollers in place), 16-inch gun barbette carriage M4.

b. Base Ring. The base ring is composed of four sections bolted and keyed together and anchored to a concrete foundation by bolts on both the inner and outer flanges of the ring (fig. 80). A traversing rack is fastened to the outer annular flange of the base ring. An azimuth circle (fig. 82) is attached to the outer annular flange just below the traversing rack. A bronze liner, which forms the inner pintle surface of the base ring, is attached to the upper, inner, vertical section of the ring and furnishes a bearing between the base ring and the racer during the action of traversing (see c following). The upper surface of the base ring frame provides a path for the conical traversing rollers (held in place by the distance ring) which support the superstructure and all the traversing parts of the carriage.

c. RACER. Resting and revolving on the rollers is a racer which, like the base ring, is made of four sections bolted and keyed together (fig. 81). A vertical annular flange extends below the roller path and forms the inner pintle surface. This surface fits inside

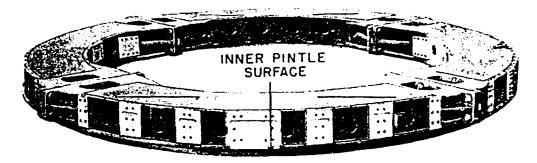
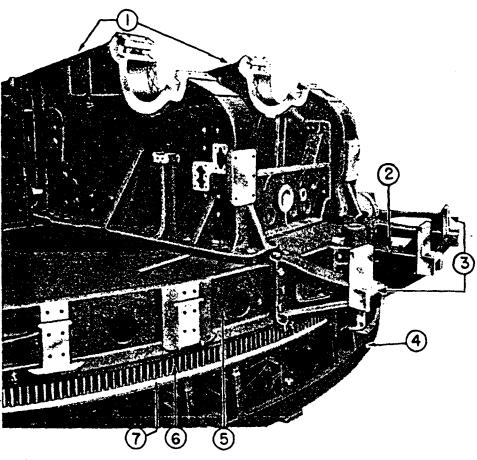


Figure 81. Racer, 16-inch gun barbette carriage M4.

bronze-lined base ring flange, forming the pintle for the carriage. Platform brackets (fig. 82), bolted to the outside surface of the racer, support the circular platform which surrounds the mount. Six of the brackets are constructed to serve also as racer clips by hooking under a projecting ledge on the base ring. This prevents any tendency of the racer to lift off the rollers when the gun is fired or when the gun is returning to battery in counterrecoil.

- d. Side Frames. The side frames (fig. 82) provide trunnion bearings for the cradle and support for the tipping parts. Since they are rigidly bolted to the racer, they also provide support for the platf of the mount.
- e. CRADLE AND THE RECOIL MECHANISM GROUP. The cradle and the recoil system were originally designed for the Navy and are lighter in construction than the Army cradle used on barbette carriage M1919. The cradle houses three recuperator cylinders located on the top and a single recoil cylinder attached to the under side of the cradle (fig. 83). The recoil and counterrecoil systems are described in paragraph 30.
- f. ELEVATING MECHANISM. (1) Hand and power elevation. Two elevating racks (fig. 84) are provided on the cradle. The gun may be elevated by electric power or by hand. Elevating by electric power is accomplished by a motor acting through a hydraulic speed gear. Elevating and depressing cams, attached to the right rack, automatically stop the speed gear to prevent the gun from being elevated or depressed to the extreme limit. The motion of elevation or depression is controlled by the operator at the follow-up control handwheel. Elevating by hand merely requires slipping the clutch lever to the HAND position and thus engaging the gears of the

hand-elevating mechanism. This mechanism is now in a position to transmit power through the same gear train as that used by the electric power system. The elevating handwheel on the right side of the carriage provides slow motion; an elevating crank on the left side provides fast motion.



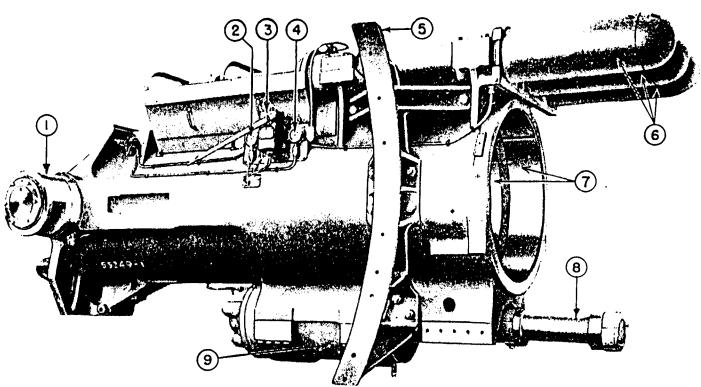
- 1. Side frames.
- 2. Traversing bracket.
- 3. Platform brackets.
- 4. Base ring.
- 5. Racer.
- 6. Traversing rack.
- 7. Azimuth circle.

Figure 82. 16-inch gun barbette carriage M4.

- (2) Elevating brakes. Elevating brakes are employed to retain the gun at any desired elevation and to prevent rotation of the tipping parts during recoil. The brakes must be released before the elevating mechanism is used, since they are normally locked. There are two brakes, one on each side of the carriage, of the drum-and-band (automotive) type. They are operated by two levers, both on the right side of the carriage.
- (3) Elevating buffers. The elevating buffers (fig. 85) absorb the shock which results from sudden stopping of the gun and tipping parts when they reach an extreme elevation or depression.

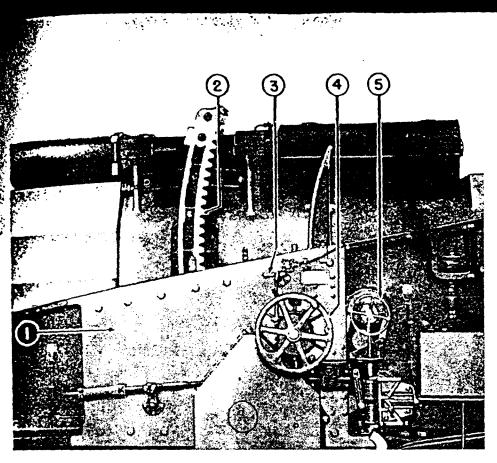
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- 1. Left trunnion extension.
- 2. Liquid pressure gage and connection assembly, recuperator system.
- 3. Liquid pump assembly, recuperator system.
- 4. Air pressure gage and connection assembly, recuperator system.

- 5. Elevating-rack bracket.
- 6. Recuperator cylinders.
- 7. Cradle liners assembly.
- 8. Recoil piston and piston rod assembly.
- 9. Recoil cylinder.

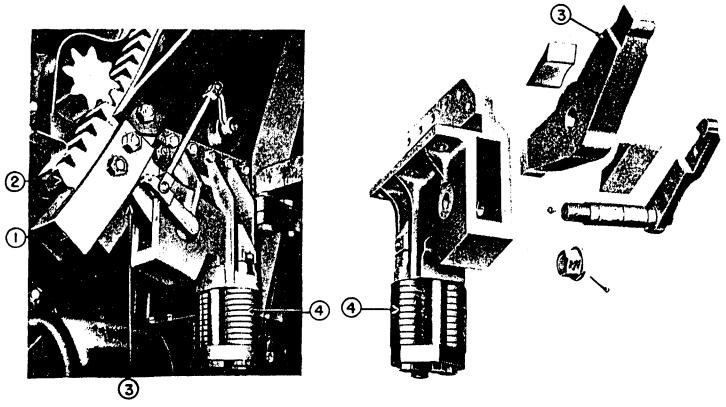


- 1. Right elevating gear plate.
- 3. Elevating-clutch lever.
- 2. Right elevating rack.
- 4. Elevating handwheel.
- 5. Follow-up control handwheel.

Figure 84. Elevating rack, handwheel, and follow-up control, 16-inch gun barbette carriage M4.

These self-contained units are bolted to the frames in such a manner as to make contact with the elevating racks. Buffer levers attached to the buffer housing brackets extend outward in the path of the elevating and depressing stops on the elevating racks. As the rack reaches its maximum limits in either direction, the stops come in contact with the buffer lever and halt the rotation of the tipping parts.

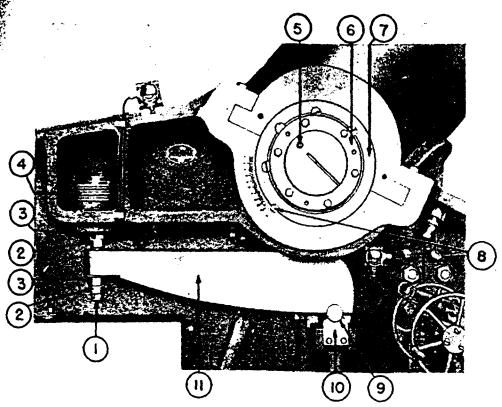
- (4) Antifriction device. An antifriction device (fig. 86) of the type explained in paragraph 35d (3) is used.
- g. Traversing Mechanism. (1) General. The tremendous weight of this large seacoast gun and carriage makes movement in direction a major factor in design. This type of traversing mechanism provides for electric power or hand movement, as the case may require. The traversing bracket, bolted to the racer, houses the pinion and shaft (fig. 87). The pinion meshes with the traversing rack (fig. 80) on the base ring with the result that rotation of the pinion causes the mount to revolve on the conical rollers between the racer and base ring.



- > 1. Depression stop.
 - 2. Elevating rack.

- 3. Buffer lever.
- 4. Buffer Belleville springs.

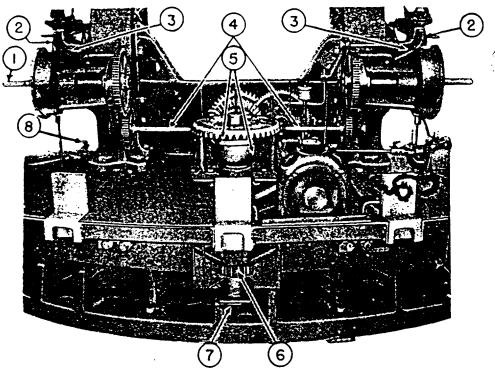
Figure 85. Right elevating buffer, 16-inch gun barbette carriage M4, assembled and exploded views.



- 1. Belleville spring rod.
- 2. Lock nut.
- 3. Adjusting nut.
- 4. Belleville springs.
- 5. Alemite fitting for lubricating the trunnion antifriction roller bearing.
- 6. Trunnion-roller bearing pin.
- 7. Main trunnion.
- 8. Trunnion-elevation pointer.
- 9. Fulcrum pin.
- 10. Fulcrum seat.
- 11. Lever arm.

Figure 86. Right trunnion, elevating scale, and antifriction device, 16-inch gun barbette carriage M4.

- (2) Traversing gear friction device. A traversing gear friction (overload slip) device relieves excessive strain resulting from sudden starts and stops of the traversing mass and provides positive drive of the traversing pinion within safe limits of strain. The device contains a multi-disk clutch inside the friction box assembly (fig. 87). The grip of the clutch is maintained by the compression of Belleville springs.
- (3) Manual traversing. Traversing cranks, assembled on crankshafts on the right and left sides of the carriage, are used for rapid change of targets. Accurate adjustment of azimuth is accomplished by using one of two slow-motion traversing handwheels (fig. 87). Clutches, operated by clutch treadles, engage and disengage the traversing slow-motion mechanism.
- (4) Electric power traversing. To speed up the traversing of the mount and to enable the gun to be pointed in azimuth as soon as



- 1. Traversing crankshaft assembly.
- 2. Traversing slow-motion hand-wheels.
- 3. Sight mounting brackets.
- 4. Transverse shaft.

- 5. Traversing gear-friction box assembly.
- 6. Traversing pinion.
- 7. Traversing limit switch.
- 8. Traversing slow-motion clutch treadle.

Figure 87. Traversing mechanism, 16-inch gun barbette carriage M4.

the target is assigned, a traversing hydraulic speed gear is provided. The traversing pinion may be driven at varying speeds while the motor end of the speed gear is driven at constant speed. Control over power traversing is maintained from one of two control handwheels, one in the azimuth observer's cab and the other at the left-side azimuth operator's station. To cut the power when the mount approaches its limit of traverse, a traversing limit switch is used. This switch breaks the electric current to the traversing motor as the mount approaches the traversing limit in either direction.

h. Loading Mechanism. (1) Loading is done by a rammer (fig. 88) operated by either electric or hand power. To load, the gun must be set at the loading elevation, which is approximately $+4^{\circ}$, and the loading trough extended and lowered to its seat in the breech recess. For electric power operation, a control switch is closed to activate the rammer motor. Because of the great weight of the projectile, the motor must be running at full speed before an attempt is made to ram the projectile. Moving the control lever from neutral to RAM position starts the ramming process which lasts less

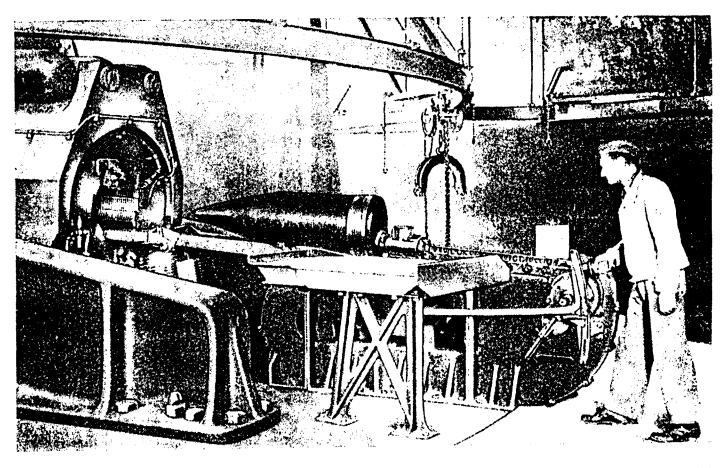


Figure 88. Power rammer, overhead trolley, and related parts, 16-inch gun barbette carriage M4.

than 5 seconds. An unstroking device prevents the rammer head from advancing beyond a predetermined point during the ram and withdrawal strokes. The rammer is then withdrawn to repeat the operation in ramming the powder charge into position in the powder chamber. The rammer is controlled by a hydraulic speed gear directly connected to, and driven by, an electric motor. Hand power may be supplied by two cranks, one on each of the right and left sides of the rammer.

- (2) Projectiles may be brought to the emplacement from the magazine by means of an overhead trolley and a clamping chain hoist which carry the projectile until it is over the rammer, where it is lowered by the chains onto the rammer trough or parking table. Powder charges are brought up by ammunition trucks. Trucks are also used for hauling projectiles when the emplacement is not equipped with a satisfactory overhead trackage system.
- i. Ammunition Truck M4. The ammunition truck M4 (fig. 89) is provided with aprons extending longitudinally along the sides. These aprons are utilized as bridges to transfer the ammunition from the truck to the rammer trough. Safety dogs on the truck bed prevent the ammunition from rolling during transit and are released by hand for unloading from either side.

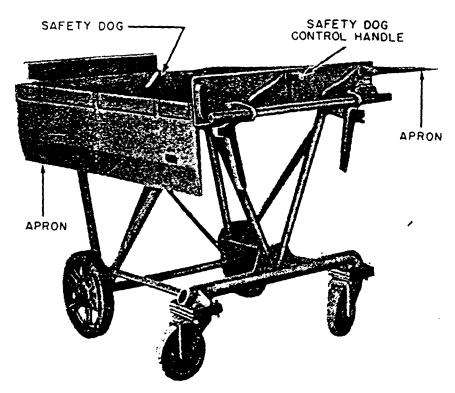


Figure 89. Ammunition truck for 16-inch gun barbette carriage M4.

38. Barbette Carriage M1919

GENERAL. The chief differences between the barbette carriage M1919 (fig. 70) and the M4 are in the recoil and loading mechanisms. The former mounts a 16-inch Army gun M1919M2 or M3, while the latter mounts a 16-inch gun Mk. II M1 of Navy design.

- b. CRADLE. (1) The cradle (fig. 90) is a ribbed casting of considerable complexity. There are two sets of recoil cylinders, each set containing a long- and a short-type cylinder. One set is mounted on the bottom and the other on the top of the cradle. The recuperator system is of the two-cylinder, pneumatic type and is mounted with one cylinder over and one under the gun. A schematic diagram of one set of the recoil and counterrecoil cylinders is shown in figure 91.
- (2) Recoil brake and buffer. The short cylinders are the conventional hydraulic brakes (par. 25). The long cylinders combine both the recoil and buffer functions. The rear half of each long cylinder is the recoil section (of conventional design); the forward half is the buffer section. In effect, the long cylinders limit the velocity of counterrecoil by the same means the ordinary recoil cylinder employs to limit the velocity of recoil. Small counterrecoil throttling grooves are cut in the walls of the cylinder. As shown in the upper part of figure 91, a sliding valve is mounted on the piston rod. During recoil this valve has no function, but when counterrecoil starts it rides against a buffer piston, closing its orifices and forcing all the liquid to flow through the restricted counterrecoil throttling grooves. This throttling effect limits the velocity of counterrecoil, regardless of the angle of elevation, and insures a smooth and even return to firing position.
- (3) Recuperator cylinders. Power to return the heavy gun to firing position, regardless of elevation, is furnished by the two pneumatic recuperator cylinders mounted on the cradle. In construction and operation they are the same as the recuperator cylinders on the 16-inch gun Mk. II M1 except that the cylinder contains only one air chamber; that is, there is no check valve (par. 30b) to control the velocity of counterrecoil.
- c. Loading Mechanism. (1) The ammunition supply is handled almost entirely by power. Figure 92 illustrates the general arrangement, and figure 93 shows a loaded projectile car. A circular railroad track is built around the gun emplacement and, by suitable switches, connects with the main track line leading to the magazines. Projectile and powder cars are provided to transport the ammunition from the magazines to the emplacement. The projectile car (9) is secured to the mount by dropping its side rails (8) into recesses in the revolving projectile table (5) and in this position will revolve

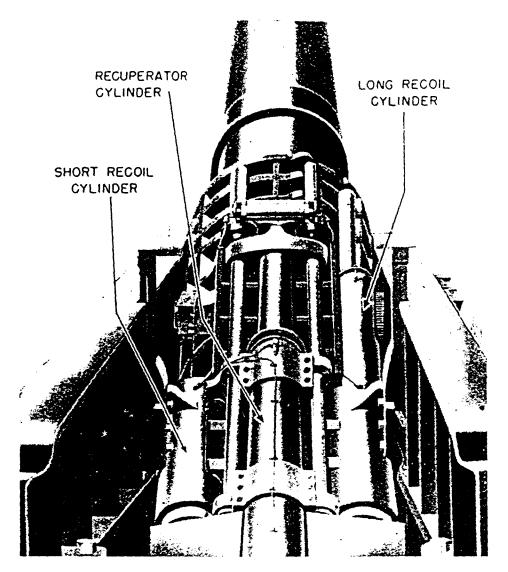
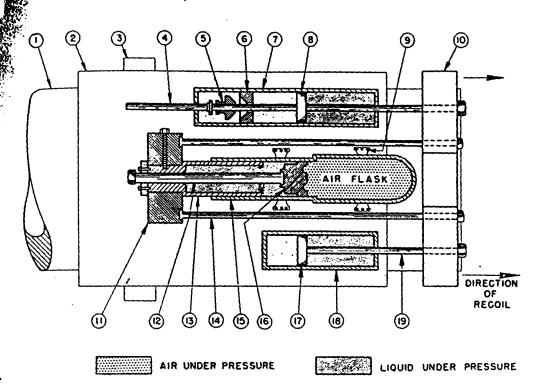


Figure 90. Recoil and recuperator systems, 16-inch gun barbette carriage M1919, top view.

with the mount while being unloaded. The powder car (not shown) coupled to the projectile car may be kept in position to deliver powder, but ordinarily it is taken away as soon as a complete charge has been placed on the powder tray (12). This obviates the danger of having several charges of powder too close to the breech in case of accident. The projectiles are rolled from the car over the side rail bars (8) onto the revolving table (5) which holds three projectiles at a time. The car is then uncoupled from the table, the table revolved, and the projectiles rolled onto the parking table (7). Hand-operated lock stops are provided on both sides of the revolving table to hold the projectiles in place and also to lock the revolving table to the parking table during transfer of projectiles. The parking table is slightly inclined, and the projectiles roll until stopped in position by the hand-operated feed stops indicated by 100



- 1. Gun tube.
- 2. Cradle.

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- 3. Cradle trunnion.
- 4. Recoil piston rod.
- 5. Sliding valve, counterrecoil buffer.
- 6. Buffer piston.
- 7. Long recoil cylinder.
- 8. Recoil piston.
- 9. Mounting strap.

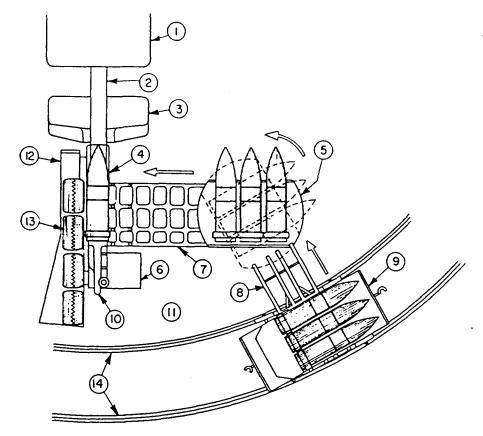
- 10. Recoil band.
- 11. Yoke.
- 12. Floating piston rod.
- 13. Hollow plunger.
- 14. Connecting rod.
- 15. Recuperator cylinder.
- 16. Floating piston.
- 17. Recoil piston.
- 18. Short recoil cylinder.

19. Recoil piston rod.

Figure 91. Recoil system, 16-inch gun barbette carriage M1919, schematic diagram.

the small squares. The first projectile lies between these stops. One projectile at a time is fed onto the rammer tray (4), and the spanner tray (2) is lowered into position in the open breech of the gun. The rammer operator at the operator platform (6) controls the rammer (10) by electrical power and pushes the projectile into the gun (1). As soon as the rammer has been withdrawn, the two forward sections of powder (13) are rolled onto the loading tray and shoved into the powder chamber with the rammer. In the same manner the remaining two powder sections are placed in the powder chamber. The spanner tray is now raised and thrown back clear, and the breech is closed ready for firing.

(2) It is possible to have 10 projectiles at the gun at one time; and by coupling 3 powder charge cars to the projectile car, 10 complete rounds can be kept at hand. In considering this loading ar-



- 1. Breech of gun.
- 2. Spanner tray (folds back).
- 3. Breech-operating platform.
- 4. Projectile on rammer tray.
- 5. Revolving projectile table.
- 6. Operator platform.
- 7. Parking table, projectiles.
- 8. Lock bars (side rails of car).

- 9. Projectile car.
- 10. Power rammer:
- 11. Platform on carriage racer.
- 12. Powder tray.
- 13. Powder charge on receiving table.
- 14. Circular track about gun platform.

Figure 92. Loading mechanism, 16-inch gun barbette carriage M1919, open emplacement.

rangement, it is well to remember that the projectile weighs approximately 2,400 pounds and each of the four sections of powder charge weighs approximately 215 pounds. The gun has a loading angle of $+4^{\circ}$.

(3) The same loading system is used on the barbette carriage M1920 with the 16-inch howitzer (par. 39). At emplacements where the 16-inch guns M1919M2 and M3 on the M1919 carriage have been casemated, the loading system has been modified accordingly.

39. Barbette Carriage M1920

As a result of the successful use of large caliber howitzers in the European War, 1914-1918, a few 16-inch howitzers (fig. 94) were established in our harbor defenses. However, they are not standard

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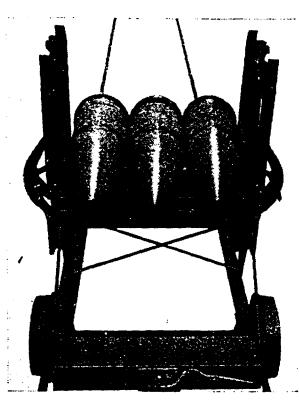


Figure 93. Projectile car, 16-inch gun barbette carriage M1919 and howitzer barbette carriage M1920.

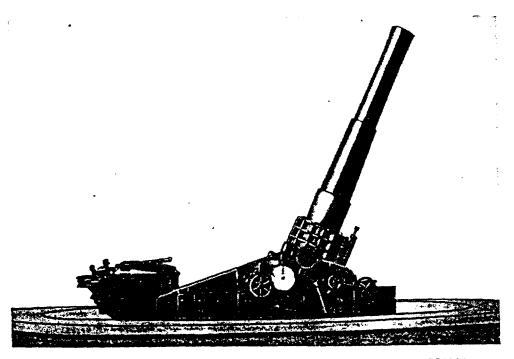


Figure 94. Barbette carriage M1920 with 16-inch howitzer M1920.

armament for future installation. As a result of the decreased weight and power of the howitzer, its carriage is made slightly lighter and simpler than the M1919. It permits all-around fire at elevation between -7° and $+65^{\circ}$. The recoil brake consists of four cylinders of the same type as the two short recoil cylinders of the M1919 carriage. However, these cylinders incorporate counterrecoil buffers of the dashpot type instead of the special buffers in the long cylinders of the M1919. The recuperator mechanism is the same as that on the M1919 carriage, but is comprised of only one cylinder mounted at the bottom of the cradle. The loading arrangements and other important features of the carriage are essentially the same as those of the M1919 (par. 38).

40. Barbette Carriage M1917

Although this model is no longer manufactured for our defense installations, it is well to discuss it briefly since many carriages are still employed as long-range mounts for the 12-inch gun M1895M1A4 (fig. 95). The model provides for a 360° traverse and elevations from 0° to 35°. The elevating mechanism, like that of the 16-inch gun carriage, is operated by electric power through a Waterbury hydraulic speed gear. The carriage is traversed by hand. A single conventional recoil cylinder (par. 25), equipped with a dashpot buffer, is mounted on the bottom of the cradle. Four spring-type recuperators (par. 27b) furnish the power to return the gun to battery after firing. The elevating mechanism is of the screw type (par. 35d), and the antifriction elevating device is of the type described in the same paragraph. Most of the carriage is below the level of the floor plate. Figure 95 shows this carriage in an open emplacement. However, such emplacements have subsequently been casemated. A new power rammer (par. 35e) and several additional features have also been provided for this carriage.

41. 8-inch Gun Barbette Carriage M1

a. General. The 8-inch gun barbette carriage M1 (fig. 97) was designed for use with the 8-inch gun Mk. VI Mod. 3A2 when permanently emplaced. While built with a 360° traverse, the emplacement may limit its traverse to 145° (fig. 96). Its maximum firing elevation is 45° ; its minimum firing elevation (usually 0°) depends on the emplacement and the terrain in front of the gun. The carriage permits depression to -5° for loading. There are a few minor manufacturing differences between individual carriages, but they do not affect use and care.

b. BASE RING AND TOP CARRIAGE. This barbette carriage has a base ring and racer (fig. 98) of conventional design upon which a

neels for operating on rails. The top shelf is for projectiles; the owner shelf is for powder bags. Three projectiles and six powder bags may be carried at one time.

42. 6-inch Gun Barbette Carriage M1

a. GENERAL. (1) The 6-inch gun barbette carriage M1 (fig. 107) is being employed as a mount for 6-inch guns M1903A2 and M1905A2. It is installed in a prepared concrete emplacement which is lowered so that the gun platform is at ground level. A heavy, cast, steel shield, with curved surfaces to aid in deflecting enemy fire, is pro-

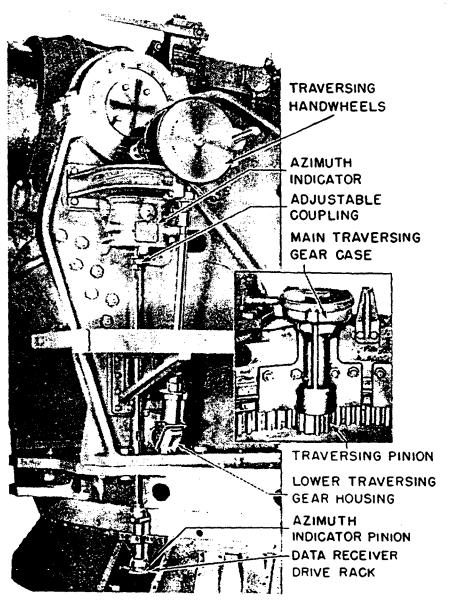


Figure 103. Traversing and azimuth-indicator drive mechanism with insert showing traversing pinion housing on inside of racer, 8-inch gun barbette carriage M1.

wided to protect the gun crew. As shown in figure 108, the base ring, racer, and top carriage are of conventional design. It has a 360° traverse.

- (2) The 6-inch gun barbette carriages M2, M3, and M4 are almost identical with the M1. The chief differences are:
- (a) On the M3 and M4 carriages, certain changes in the cradle and in the recoil and counterrecoil systems have been made to compensate for changes made in a 6-inch gun of new design.
- (b) The M2 and M4 carriages have a new type of power-driven elevation system (par. 36b). This permits the gun to be automatically set in elevation.



Figure 106. Ammunition truck M17 for 8-inch gun barbette carriage M1.

b. ELEVATING MECHANISM. (1) The gun may be elevated by hand or by electrohydraulic power. The hydraulic system (fig. 109) is powered by an electric motor which drives a constant-speed, variable-delivery fluid pump (A-end) operating a constant-displacement fluid motor (B-end) which is geared to the elevating mechanism (par. 36). When the handwheels are turned, the hydraulic pump (A-end) delivers oil under pressure to the hydraulic motor (B-end) to elevate or depress the gun. By placing the clutch-operating mechanism in the HAND position, the elevating mechanism may be operated by hand power.

- (2) The power is transmitted (fig. 110) to the elevating rack, attached to the top carriage, as follows:
- (a) Hand operation. The power is transmitted from the hand-wheel shaft to the worm drive bevel gears, from the worm drive bevel gears to the elevating worm, from the elevating worm to the worm wheel, from the worm wheel to the elevating pinion gear, and from the pinion gear to the elevating rack (not shown).
- (b) Electric power. The power is transmitted from the hydraulic motor (B-end) to the power shaft, from the power shaft to the bevel gears, from the bevel gears to the elevating worm, from the elevating worm to the worm wheel, from the worm wheel to the pinion gear, and from the pinion gear to the elevating rack. In electric power operation the handwheels are used to control the variable-delivery fluid pump (A-end) from the handwheel shaft to the compound gear and from the compound gear to the response drive (to signal shaft), which operates the response mechanism of the variable-delivery fluid pump (A-end).
- c. Traversing Mechanism. The mount is traversed by hand power by a direct-drive traversing mechanism (fig. 111). Turning the traversing handwheels rotates the worm, worm wheel, and pinion. The latter engages the traversing rack, mounted in the base ring, and moves the top carriage to the right or left. The azimuth

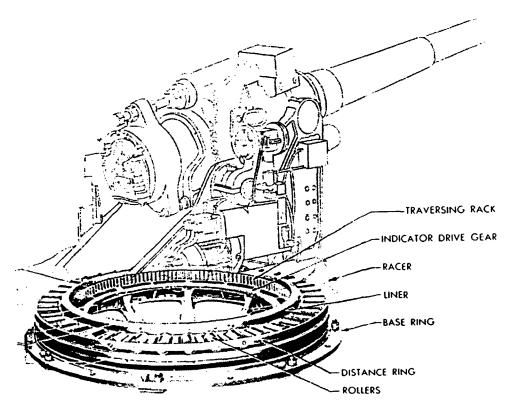


Figure 108. Base ring and rollers, 6-inch gun barbette carriage M1.

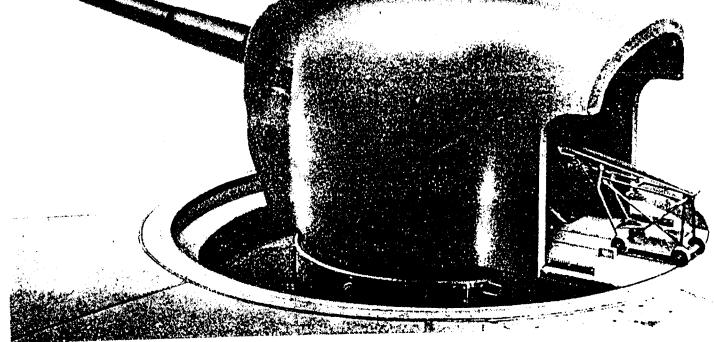


Figure 107. 6-inch gun on 6-inch gun barbette carriage M1.

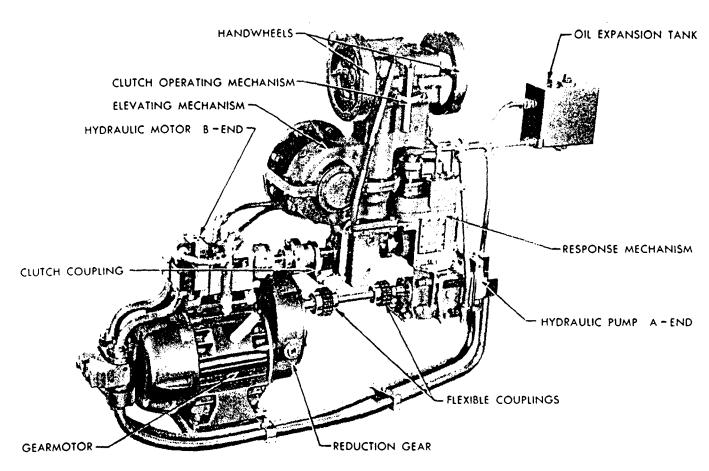


Figure 109. Elevating mechanism and hydraulic system, 6-inch gun barbette carriage M1.

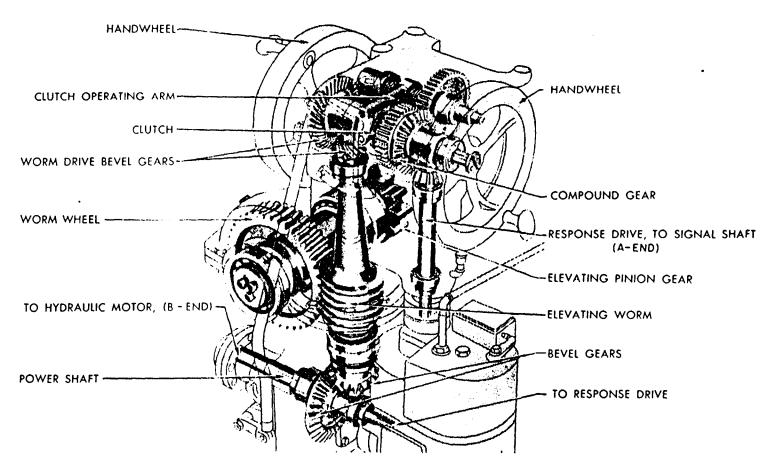


Figure 110. Elevating mechanism, 6-inch gun barbette carriage M1.

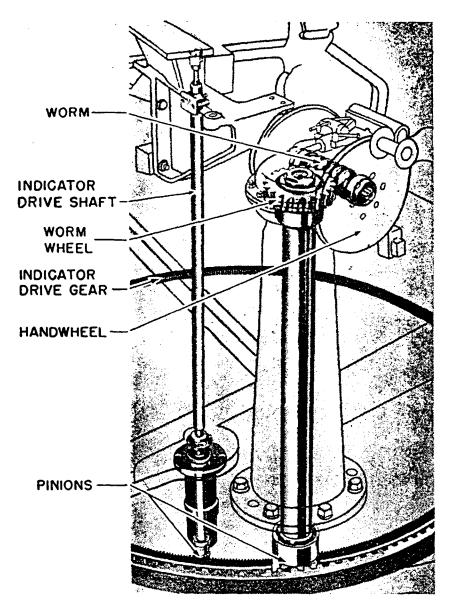


Figure 111. Traversing mechanism and indicator drive, 6-inch gun barbette carriage M1.

indicator is operated by a drive shaft which in turn is driven by a ring gear attached to the base ring.

d. Loading Carriage. The loading carriage (fig. 112), from which projectiles and powder charges are rammed into the breech, is a four-wheeled truck which is rolled on rails built into the loading platform. A spring and hydraulic buffer, attached to the carriage, bring the latter to a gradual stop when it is rolled against the breech. After loading, the carriage is rolled back and locked by a footoperated, pedal-released carriage latch. The loading carriage is designed to load a gun elevated to 177.8 mils (10°). However, the loading tray may be adjusted to any elevation between 160.0 mils and 195.6 mils.



Figure 112. Loading carriage, 6-inch gun barbette carriage M1.

- e. Cradle. (1) The cradle is shown in figure 113. It is bronzelined to provide a bearing surface for the gun in recoil and counterrecoil. Slots are cut in the forward cylinder section for the gun recoil slide keys which prevent the gun from rotating. A counterweight is attached to acquire the desired balance to the tipping parts. There is one recoil cylinder mounted on the top, and two recuperator cylinders mounted on the bottom.
- (2) The recoil cylinder (fig. 113) is the conventional type (par. 25) with throttling grooves in the cylinder walls. It contains a dash-pot-type buffer. The recuperators are of the spring type (fig. 113). Six springs, three of large diameter and three of small diameter, are used in each cylinder. The springs are kept apart by separators. On recoil, the springs are compressed until they exert a total force of approximately 40,000 pounds.
- f. Gas-ejection Pipe System. The gas-ejection pipe system which passes along the left side of the cradle to the gun breech, provides compressed air to clear the bore of burning fragments, inflammable gases, and smoke after each round is fired.

43. 6-inch Gun Barbette Carriage, Pedestal-type

The 6-inch gun M1900 is mounted on the barbette carriage M1900 of the pedestal type (fig. 76) as described in paragraphs 35b and d. The maximum elevation is about 20°; the minimum elevation, 5°. The recoil system is comprised of one recoil cylinder of conventional

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Section III

2.36-INCH ROCKETS

15. DESCRIPTION AND DATA.

- a. General. The 2.36-inch rocket (figs. 20 to 24) consists of a head which contains the charge, and a motor and fin assembly, which includes an integral fuze, the motor, and the fin assembly. The head and the fin assembly are full caliber in diameter; the motor tube is approximately one-half caliber in diameter. In earlier models, the head is pointed and the fin assembly is made up of six long radial fins; in later models, the head is rounded and the fin is circular, that is, shrouded.
- (1) HEAD. The rocket head varies with each type and model and is described below in the paragraph on the specific model.
- (2) MOTOR AND FIN ASSEMBLY. The motor tube is closed at the forward end by a steel cup which contains the fuze mechanism. The forward end is threaded for assembly to the rocket head. The fin assembly is welded to the tube at its rear end.
- (3) Fuze. The fuze consists of a simple inertia plunger carrying the firing pin, a creep spring, a primer detonator, and, in high-explosive rockets, a tetryl booster. For safety in handling, the plunger is held in safe position by a safety pin which passes through the plunger and the fuze housing, and clips around the motor tube. This pin is a simple wire clip in earlier models (fig. 20) and a waterproof band-type in later manufacture (fig. 20). When the safety wire is removed, a blow equivalent to dropping the rocket on its nose from a height of 1 foot will cause the plunger to strike the primer with sufficient force to operate the fuze. These fuzes are described in detail in paragraphs 45 and 46.
- (4) PROPELLING CHARGE. The propelling charge consists of five sticks of double-base powder each approximately 4.15 inches long. It is ignited by an electric igniter assembled within the motor. The lead wires pass out the nozzle through a plastic closing cup which seals the motor against the entrance of dirt and moisture. The igniter lead wires are of unequal length; the short wire is soldered to a fin and the long wire, called the contact wire, is stripped of insulation near its outer end for attachment to the launcher terminals. For shipping, the contact wire is coiled, to take up the slack, and attached to a fin with tape.

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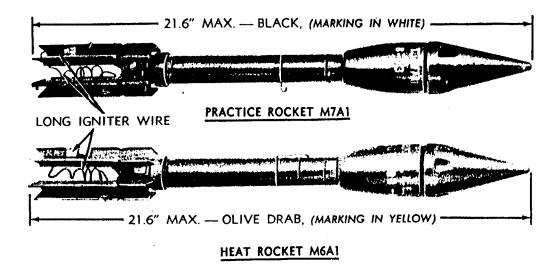
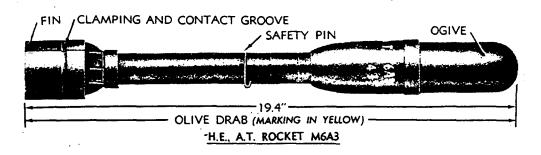
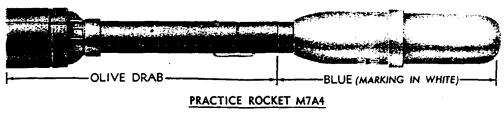


Figure 20 — 2.36-inch Rockets: HF. AT, M6A1 and Practice M7A1

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Figure 21 — 2.36-inch Rockets: HE, AT, M6A3 and Practice M7A4

b. Data.

	M6A1	M10 M6A3	M10A1 M6A3D	M10A2 M10A3 M6A3F M6A4 M6A5
Range (max)	600 yd	700 yd	700 yd	700 yd
Dispersion	8.5 mils	6 mils	6 mils	6 mils
Velocity (max)	265 ft per sec	270 ft per sec	270 ft per sec	275 ft per sec
Temperature limits	0 to 120 deg F	0 to 120 deg F		
Burning time	0.08 to 0.03 sec	0.08 to 0.03 sec	deg F	deg F
Buen-out point (feet from muzz)	le) (Normally	within launcher)	

16. 2.36-INCH HE,AT ROCKET M6. This rocket and the corresponding practice rocket M7 are no longer issued, but are to be held for modification to the corresponding A1 models. They resemble the rockets M6A1 and M7A1, but may be distinguished by a contact band, on the nose of the rocket, which is connected to the igniter lead by a wire taped to the body.

17. 2.36-INCH HE,AT ROCKET M6A1.

a. Data. This rocket (fig. 20) is 21.6 inches long and weighs 3.4 pounds. The head is 8.8 inches long and weighs 1.57 pounds. It contains a half-pound charge of pentolite. The propellant consists of 5 cylindrical grains each 0.375-inch diameter by approximately 4.15 inches long. This model may be identified by the pointed nose and the long, radiating fin assembly. The fuze of this model may be expected to function after removal of the safety pin by a blow on

the nose equivalent to a drop of 48 inches on normal soil. It will ordinarily not function on impact with mud, loose sand, or water, nor on glancing impact with normal soil.

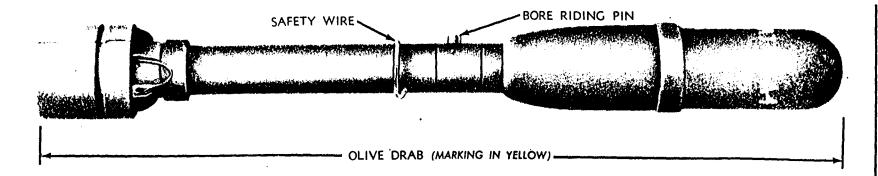
- b. Effect. This rocket has effect against various targets as follows:
- (1) ARMOR PLATE. Penetration of armor found on most tanks may be expected at all ranges. A hole is blown through the armor and heated particles of metal are sprayed through in a cone-shaped pattern. Any ammunition within this pattern is usually exploded.
- (2) MASONRY. Penetration of brick and masonry from several inches to a foot or more may be expected, depending on quality of structure.
- (3) STRUCTURAL STEEL. Produces shattering effect against cast steels and such materials as girders and railroad rails. Produces extensive damage, probably irreparable, to motor blocks.
- (4) Wood. Penetration of timber from several inches to a foot or more may be expected, depending on the timber.
- (5) Soil. Impact with ground at ranges below 300 yards will ordinarily result in a ricochet rather than a detonation. At ranges in excess of 300 yards, the angle of impact is steep enough to cause a detonation which resembles that of a 75-mm high-explosive shell. However, impact on a very soft materal such as mud, soft sand, or water will not cause detonation of the rocket.
- (6) FRAGMENTATION. Fragmentation and antipersonnel effects are slightly greater than 60-mm mortar shell.

18. 2.36-INCH HE,AT ROCKET M6A3.

- a. Data. This rocket (fig. 21) is 19.4 inches long and weighs 3.4 pounds. The head is 8.8 inches long and weighs 1.64 pounds. It contains a half-pound shaped charge of pentolite. The propellant and fuze are similar to those of the rocket M6A1 described above. This model may be identified by the rounded nose and shrouded fin assembly.
- b. Effect. This model has effect similar to the rocket M6A1 described above.

19. 2.36-INCH HE, AT ROCKET M6A3: MODIFICATIONS.

a. 2.36-inch HE,AT rocket M6A3C. This model (fig. 22) is similar to the rocket M6A3 described above, except that the detonator cover has been omitted in the fuze, thereby making the fuze extremely sensitive. This model will function (with safety pin removed) on a blow equivalent to a drop on normal soil of only 11 inches. Rocket M6A3C is marked, for additional identification, by a half-inch white band around the ogive. The effect of this rocket is similar to that of the rocket M6A1 described above (par. 17),



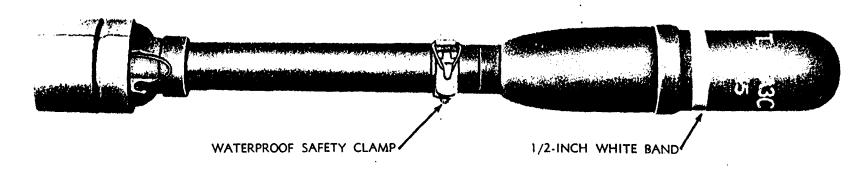


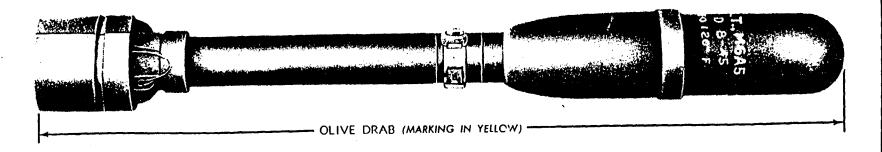
Figure 22 — 2.36-inch Rockets: HE, AT M6A4 and M6A3C

except that function may be expected on glancing impact, or on impact with soft soil, heavy brush, or hedge.

- b. 2.36-inch HE,AT rocket, M6A3D. This model is similar to the rocket M6A3C except that the propellant is T1E1 (salted) powder, which has better burning characteristics at lower temperatures. The temperature range for motors loaded with this powder is from -20° F to +120° F.
- c. 2.36-inch HE,AT rocket M6A3F. This model is similar to the M6A3C except that the propellant is M7 (T4) powder. The safe temperature range is from -40° F to $+120^{\circ}$ F.
- 20. 2.36-INCH HE,AT ROCKETS M6A4 AND M6A5. These models (figs. 22 and 23) are similar to the rocket M6A3F except for the fuze. Rocket M6A4 incorporates the base-detonating rocket fuze M400; rocket M6A5 incorporates the fuze M401 (par. 46). Both fuzes employ a bore-riding pin which keeps the fuze unarmed until the rocket leaves the launcher.

21. 2.36-INCH WP SMOKE ROCKET M10.

- a. Data. This rocket (fig. 24) is 17.1 inches long and weighs 3.4 pounds. The head is 5.9 inches long and weighs 1.64 pounds. It contains a 0.9-pound charge of phosphorus. The propellant consists of five cylindrical grains each 0.375-inch diameter by approximately 4.15 inches long. This model may be identified by appropriate markings and by the short head without smoke ports. The fuze is similar to that of the HE,AT rocket M6A3 except that the booster is replaced by a long detonator-burster extending into the head (fig. 6).
- b. Effect. The WP smoke rocket bursts on impact to produce a spray of phosphorus particles over a radius of 25 yards. The phosphorus ignites spontaneously on contact with air and produces a dense white smoke. The smoke itself is harmless but the burning particles produce painful burns.
- c. Development models. During development, the white phosphorus smoke rocket M10 was designated T26E2. The rocket T26E1 differs only in internal burster details; the rocket T26 differs in that the motor is equipped with the long fin, similar to that of the HE,AT rocket M6A1.
- 22. 2.36-INCH WP SMOKE ROCKETS M10A1 AND M10A2. These models differ from the white phosphorus smoke rocket M10 only in the type of propellant. The motor of the rocket M10A1 is loaded with salted powder T1E1; the safe temperature range of this model is -20° F to +120° F. The motor of the rocket M10A2 is loaded with powder M7 (T4); the safe temperature range is -40° F to +120° F.



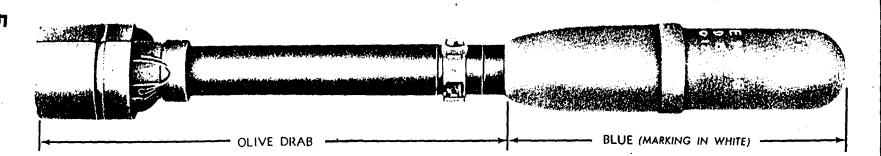
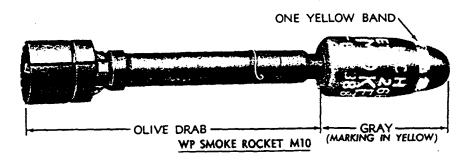


Figure 23 - 2.36-inch Rockets: HE, AT M6A5 and Practice M7A6



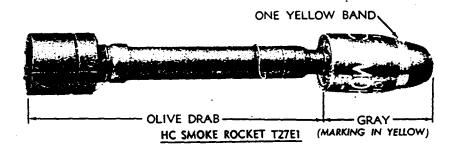


Figure 24 – 2.36-inch Smoke Rockets: WP, M10 and HC, T27E1

23. 2.36-INCH WP SMOKE ROCKET M10A3. This model is similar to the rocket M10A2 except that it incorporates the boresafe base-detonating rocket fuze M401 (par. 46). The propellant is M7 powder and the safe temperature limits are -40° F to +120° F.

24. 2.36-INCH HC SMOKE ROCKET T27E1.

- a. Data. This rocket (fig. 24) is 16.1 inches long and weighs 3.4 pounds. The head is 4.5 inches long and weighs 1.64 pounds. It contains a 1-pound charge of HC smoke mixture. The propellant consists of five cylindrical grains, each 0.375-inch diameter by approximately 4.15 inches long. This model may be identified by appropriate markings and by the short head with a circle of smoke ports in the base. The fuze is similar to the other fuzes for this size of rocket except that it is an igniting rather than detonating type.
- b. Effect. On impact, the HC rocket ignites and burns for approximately 1 minute producing a cloud of white smoke.

25, 2.36-INCH INCENDIARY ROCKET T31.

a. Data. This rocket is 17.7 inches long and weighs 3.4 pounds. The head is 4.1 inches long and weighs 1.64 pounds. It contains a 1.1-pound charge of thermate. This model may be identified by the short head and the type of motor characteristic of rocket M6A1. The fuze is of the igniting type.

b. Effect. On impact, this rocket ignites and burns, producing extreme heat. It is currently authorized for practice only, but in using it, the incendiary effect on the target should be considered and, when necessary, guarded against.

26. 2.36-INCH PRACTICE ROCKETS.

- a. General. Practice rockets are provided to simulate the various modifications of HE,AT rockets in firing for target practice. In general, they are made up of the corresponding service type motor and a head of the same shape, weight, and center gravity as the service round. In earlier modifications, the head is brought up to weight with an iron rod; later modifications use the metal parts of the service head loaded with inert material.
- b. Practice rocket M7A1. This model (fig. 20) simulates the HE,AT rocket M6A1. It has the same size, shape, weight, and flight characteristics as the service round.
- c. Practice rocket M7A3. This model simulates the HE,AT rockets M6A2 and M6A3C. It consists of the service type motor and an empty head brought up to weight with an iron rod.
- d. Practice rocket M7A4. This model (fig. 21) also simulates the HE,AT rockets M6A3 and M6A3C. It differs from the practice rocket M7A3 in that the head is inert loaded rather than weighted.
- e. Practice rocket M7A5. This model simulates the HE,AT rocket M6A3D. The motor is loaded with salted powder and has the same safe temperature range, -20°F to +120°F, as the corresponding service round.
- f. Practice rocket M7A6. This model (fig. 23) simulates the HE,AT rockets M6A3F, M6A4, and M6A5. The motor is loaded with M7 powder and has the same temperature limits, -40°F to +120°F, as the service rounds.

Section IX

FUZES

44. GENERAL.

- a. Definition. A fuze is a mechanical device which initiates an explosion at the time or under the circumstances desired. Rocket fuzes are designated "nose" or "base" according to position on the shell, and as "time" or "impact" according to whether they function a set time after firing the rocket or on impact with the target. Powder-train time fuzes operate through the burning of a pressed charge of black powder or a delay fuze. Mechanical time fuzes operate through the action of a clock-like mechanism. The action of impact fuzes may be superquick (or instantaneous), nondelay, or delay. Superquick fuzes operate when the firing pin strikes the target. Nondelay fuzes operate when the shell strikes the target and decelerates sufficiently for inertia to cause a weighted striker to move forward and strike the primer. Delay fuzes have a fixed-delay element incorporated in the explosive train.
- b. Arming. A fuze is armed when the various parts are in position to operate. For safety in shipping and handling, fuzes are kept unarmed. This may be accomplished by safety pins or wires preventing the motion of the firing mechanism, or by arrangement of the components so that they cannot function until moved into position by forces incident to firing. A fuze in which the detonator is held out of line so that it cannot explode the shell until armed, is detonator safe; when this condition persists until after the round leaves the weapon, the fuze is boresafe. Various forces are employed for arming rocket fuzes. Fuzes used on fin-stabilized rockets may be armed by set-back, the air resistance operating a propeller, motor pressure, cessation of acceleration, or a combination of these. Fuzes for spin-stabilized rockets are usually armed by set-back and centrifugal force.
- c. Precautions. Fuzes contain the most sensitive explosives used for military purposes. They are particularly susceptible to heat, moisture, and shock, and should be handled with due care at all times. Safety devices should be removed only in preparation for firing and should be replaced in unused rounds before further handling. Fuzes will not be disassembled except when specifically authorized. A fuze which is suspected of being armed should be handled as though it were certainly armed. No attempt will be made to disarm a fuze; many fuzes are designed so that an attempt to reverse the steps in arming will cause the fuze to detonate.
- 45. INTEGRAL BASE FUZES. The base-detonating fuze which is integral with 2.36-inch rockets is a simple inertia type consisting of a weighted firing pin which is held away from the detonator by a light creep spring (fig. 35). The firing pin is prevented from mov-

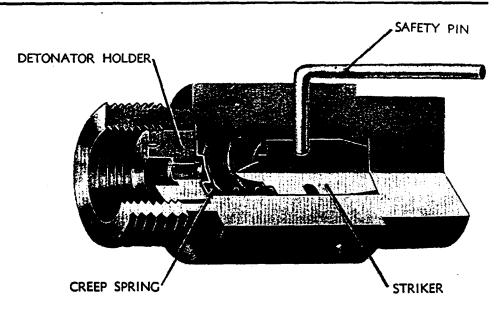


Figure 35 — BD Fuze for 2.36-inch Rockets

ing in shipping and handling by a safety wire which passes through the fuze body. The sensitivity of this fuze is controlled by varying the thickness of a thin metal disk covering the detonator. In some models this disk is omitted, making the fuze extremely sensitive.

46. BD FUZES M400 AND M401. These fuzes (figs. 36 and 37) incorporate a bore riding pin which prevents the striker moving until after the rocket leaves the launcher. When unarmed, the striker is held by the safety pin and bore riding pin (B, fig. 36 and B, fig. 37). On firing the rocket, the arming sleeve sets back, compressing the set-back spring and releasing the bore riding pin which is held by the wall of the launcher (C, fig. 36 and C, fig. 37). On leaving the launcher, the pin is completely ejected and the striker is restrained only by the creep spring (D, fig. 36 and D, fig. 37). On impact equivalent to a 12-inch drop, the striker overcomes the resistance of the creep spring and fires the fuze.

47. PD ROCKET FUZE M4A2.

a. General. This is a selective superquick-delay, impact fuze for fin-stabilized rockets. It is used in 4.5-inch rockets of the M8 series and rocket T22. The delay time is indicated in the nomenclature and marked on the fuze. At present, the SQ-0.10-second delay fuze is furnished for ground-fired rockets, the SQ-0.015-second delay fuze is furnished for aircraft-fired rockets. The rockets for which this fuze is designed have deep fuze cavities, therefore an auxiliary booster (fig. 40) is issued with the fuze. The fuze is standard contour type with booster assembled to the base (fig. 38).

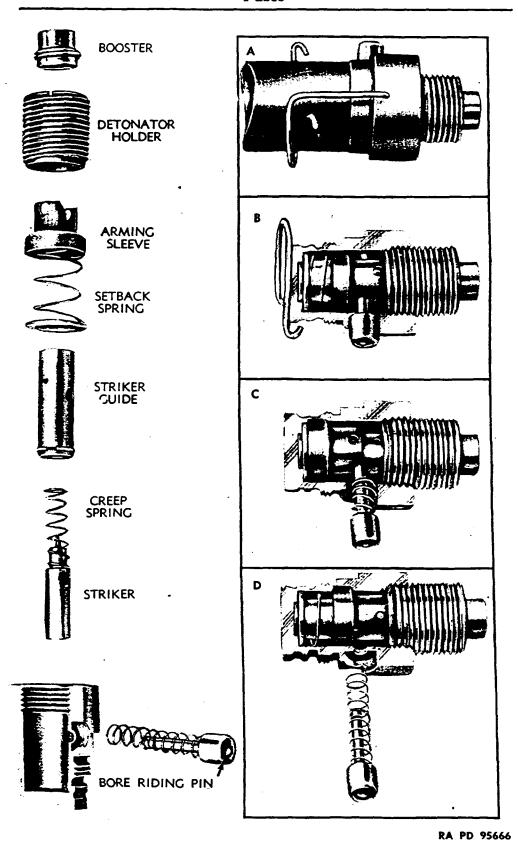


Figure 36 - BD Fuze M400, Disassembled and Functioning

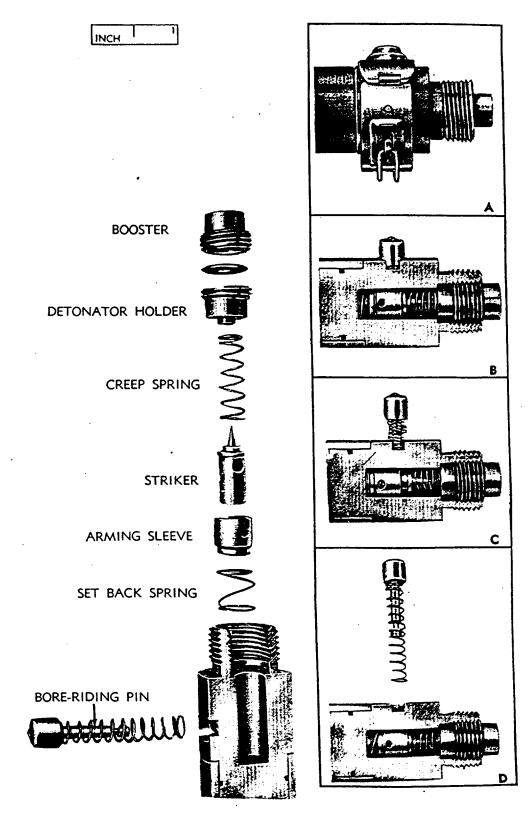
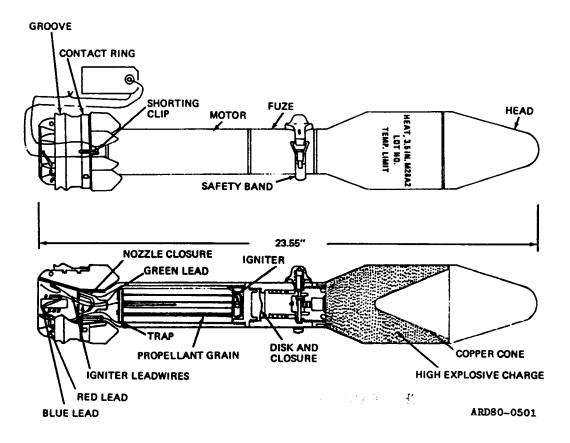


Figure 37 — BD Fuze M401, Disassembled and Functioning

ROCKET, HIGH-EXPLOSIVE, 3.5-INCH: AT, M28A2



Type Classification:

STD (LCC-B) OTCM 36841 Jul 58

Use:

The M28A2 HEAT rocket is used primarily against armored targets, tanks and secondary targets, such as gun emplacements, pillboxes and personnel. It is capable of penetrating heavy armor at angles of impact greater than 30°. In an antipersonnel role, it has a fragmentation area 10 yd wide and 20 yd deep.

Description:

a. The warhead is cylindrical and tapered. The forward end, called the ogive, is thin metal and hollow. The rear end, threaded internally to receive the fuze which is encircled by a safety band. The warhead contains a copper

cone whose apex faces aft and acts to shape the high explosive charge Composition B (Comp B).

- b. The base detonating (BD) rocket fuze M404A2 consists of a body which contains the functioning parts; a safety band, a detonator and a booster pellet. The fuze body and safety band are olive drab. The fuze mechanism consists of an activating plunger, a setback spring, a setback sleeve, a firing pin assembly, a detent spring, an ejection pin and an ejection spring. The spring-loaded ejection pin passes through the fuze body.
- c. The motor assembly consists of a tube which houses the propellant and igniter. The fin assembly is securely attached to this tube. The front end of the tube is assembled to the base of the fuze. The rear end forms a nozzle. The cylindrical motor cavity is divided into four

sections by two spacer plates which support the grains of propellant powder.

- d. Each grain of propellant is 5-in. long and approximately 3/8-in. in diameter. Three grains are placed in each of the four sections formed by the spacer plates. Each lot of propellant is adjusted at the time of manufacture to give standard velocity. The igniter ignites the propellant.
- The igniter consists of a short, cylindrical plastic case containing a small black powder charge and an electrical squib. It is assembled in the forward end of the motor on top of the propellant, spacer plates. The leads of the electrical squib, running parallel to the grains of propellant, pass from the igniter through the nozzle into the expansion cone. A green lead (ground) wire is connected to the aluminum support ring of the contact ring assembly. A red lead (positive) wire is attached to a pin which is insulated from the support ring, but is in contact with the copper contact band. These connections are positioned 180° apart. Blue lead is used for test purpose only.
- f. The fin assembly consists of six aluminum alloy fins and a contact ring assembly. The contact ring assembly, which encircles the fins, consists of three rings. The aluminum support ring, which is innermost, is separated from the copper contact ring by a plastic insulating ring. The fins are spot welded to the expansion cone, and the expansion cone is press fitted to the rear of the motor tube. The M24 and the M66 offroute mines utilizing M28A2 HEAT rockets are described in TM 43-0001-36.

Differences between Models:

The BD rocket fuze M404A1 is similar to BD rocket fuze M404A2. The M404A1 differs principally in minor design changes of the functioning parts and the shape of the safety band.

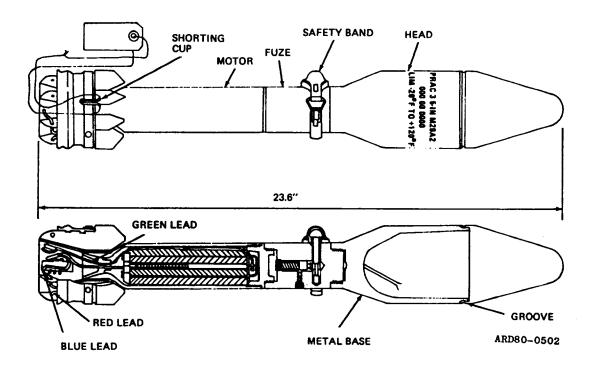
Functioning:

- a. When the safety band is removed, the ejection pin moves outward approximately 3/8 of an inch but still prevents all parts of the fuze mechanism from moving. When the rocket is in the firing chamber, the ejection pin is partially depressed by the chamber, thereby freeing the setback sleeve so it can move to the rear when the rocket is fired. The fuze is still safe, since the ejection pin prevents movement of the actuating sleeve and firing pin.
- b. If it becomes necessary to remove the rocket from the launcher, the ejection pin will move outward and re-engage the setback sleeve. This returns the fuze to its original safe condition.
- c. When the rocket is fired, the force of inertia causes the setback sleeve to move rearward. It is held in its rearward position by the lockpin. When the rocket leaves the muzzle of the launcher, the ejection pin is thrown clear of the fuze by the ejection pin spring. The fuze is then fully armed.
- d. During flight, the firing pin lever and firing pin spring prevent the firing pin from striking the detonator. The creep spring retards the forward movement of the plunger and actuating sleeve. The action of the creep spring prevents the fuze from firing should the rocket strike light objects such as thin brush or undergrowth.

e. Upon impac	t with a more resis-	Length:	
tant object, the plun	ger and actuating	Overall	3.48 in.
sleeve move forward	until the sleeve hits	To shoulder	
the firing pin lever.	This causes the	(max)	2.94 in.
	nd detonate the war-	Weight	1.16 lb
head.		Arming	
		distance	10 ft (3.05 m)
Tabulated Data:		Motor:	(0105 ш)
200000000000000000000000000000000000000		Diameter (at	
Rocket:		fins)	3.5 in.
Model	M28A2	Length	
Type		Weight	
Diameter		_	6,000 - 10,000 lb
Length (max)		111 ubv	20,000 1
Weight			
•	5.00 ID	Propelling initiating	train
Performance:			uam:
Operating		Igniter: Model	360041
temperature	2001 1000		MZUAI
limits		Charge (black	0.10 : 0.007
	(-28. 6 to +48. 4C)	powder)	
Muzzle velocity		775	$(3.5 \pm .2 \mathrm{g})$
(at 70°F)		Electric	360
(approx)		squib	
	(99 mps)	Propelling charge	e:
Warhead:		Propellant:	
Туре		Model	*
Body		Type	
Color	Olive drab w/yellow	Configuration -	Monoperforated,
	markings		cylindrical, extruded
Diameter			grains (12)
Length		Weight	0.44 lb (198 g)
Weight	4. 47 lb	Burning time:	
High-explosive train	1:	At -20°F	
Detonator	M41	At +120°F	0.02 sec
Booster			
(tetryl)	0.17 oz (4.81 g)	Launchers	M20, M20A1,
Filler (warhead)	(· · · · · · · · · · · · · · · · · · ·		M20A1B1, M20B1
Type	Comp B		
Weight		Packing	1 per metal/fiber con-
(approx)	1.88 lb (.854 kg)		tainer, 3 containers
Fuze:			per wooden box
Model	M404A1 or M404A2	Box:	
Туре	Base detonating	Weight (with	
Diameter		contents)	53.0 lb

- Dimensions.		ompping and swrage data:
W/metal		Storage class/
container	29-9/16 in. x	SCG '1.1E
	14-1/16 in. x	DOT shipping
	16-19/32 in.	classA
		DOT designation - ROCKET AMMUNI-
		TION WITH EXPLO-
W/fiber		SIVE PROJECTILES
container	29-3/16 in. x	Field storage Group E
	13-7/8 in. x	Drawings:
	16-19/32 in.	Complete assy 9211744 (82-6-22
		Loading assy
		(head)82-16-36
Cube:		Loading assy
W/metal	9	(motor)9225502 (82-16-35)
container	1. 6 ft ³	Packing (inner) 7549038
W/fiber	_	Packing (outer) 7549040
container	1.5 ft ³	References:
		TM 9-1340-222-34
DODAC	1340_H600	

ROCKET, PRACTICE, 3.5-INCH M29A2



Type Classification:

STD (LLC-B) AMCTCM 36841 (M29A2)

Use:

For training personnel in use, care and handling of service rockets.

Description:

- a. The warhead is completely inert.
 The practice rockets can be fired at buttonedup, modified target tanks without danger to
 tank crews. The practice rockets have the
 same flight characteristics as the HEAT
 rocket.
- b. The dummy fuze rocket M405 which serves as a coupling for the warhead and motor, is cylindrical. It is threaded externally at the forward end to fit into the

warhead assembly, and internally at the rear end to receive the motor assembly. A safety band fits around the seals and fuze. This fuze incorporates a double-locking, bore-riding, round ejection pin assembly simulating that used in base detonating (BD) fuze M404A2. The body of the fuze and the safety band are painted blue.

- c. The motor assembly consists of a tube which houses the propellant and igniter. The fin assembly is securely attached to this tube. The front end of the tube is assembled to the base of the fuze. The rear end forms a nozzle. The cylindrical motor cavity is divided into four sections by two spacer plates which support the grains of propellant powder.
- d. Each grain of propellant is 5-in. long and approximately 3/8-in. in

diameter. Three grains are placed in each of the four sections formed by the spacer plates. Each lot of propellant is adjusted at the time of manufacture to give standard velocity. The igniter ignites the propellant.

- The igniter consists of a short, cylindrical plastic case containing a small black powder charge and an electrical squib. It is assembled in the forward end of the motor on top of the propellant spacer plates. The leads of the electrical squib, running parallel to the grains of propellant, pass from the igniter through the nozzle into the expansion cone. A green lead (ground) wire is connected to the aluminum support ring of the contact ring assembly. A red lead (positive) wire is attached to a pin which is insulated from the support ring, but is in contact with the copper contact band. These connections are positioned 180° apart. Blue lead is used for test purpose only.
- f. The fin assembly consists of six aluminum alloy fins and a contact ring assembly. The contact ring assembly, which encircles the fins, consists of three rings. An aluminum support ring, which is innermost, is separated from the copper contact ring by a plastic insulating ring. The fins are spot welded to the expansion cone; the expansion cone is press-fitted to the rear of the motor tube.

Differences between Models:

- a. The M29A1 and M29A2 rockets are similar in appearance to the M28A2. The M29 series differ in that they have a crimping groove at the juncture of the warhead body and ogive. The rockets of an early manufacture are assembled with M28A2 rocket warhead metal parts inert loaded with plaster of paris.
- b. The M29A1 warhead differs from the V129A2 warhead in the head and trap and

spacer assembly. The ogive is attached to the head body of four screws staked to the ogive. Some rockets may have the cast trap and square spacer blades.

The warhead being inert, no functions occur when the rocket is fired. The rocket is strictly for training purpose.

Tabulated Data:

Rocket:

```
Model ---- M29A2
  Type ----- Practice
  Diameter --- 3.5 in.
  Length (max) - 23.6 in.
  Weight
  (approx) ---- 9.00 lb
  Performance:
   Operating
   temperature
   limits---- -20° to +120°F
                 (-28.6 \text{ to } +48.4^{\circ}\text{C})
   Muzzle velo-
   city (at 70°F,
   approx)---- 334 fps (101.9 mps)
   Range (max,
   approx)---- 945 yd (863.7 m)
Warhead:
  Type ----- Inert
  Body ----- Cast iron
  Color ---- Blue w/white
                  markings
  Diameter --- 3.5 in.
  Length ---- 10.5 in.
  Weight ---- 4.47 lb
Fuze:
  Model---- M405A2
  Type ----- Dummy
  Diameter ---- 2.0 in.
Length:
  Overall ---- 3.42 in.
   To shoulder
   (max) ----- 2.94 in.
Weight ----- 1.01 lb
```

Motor: Diameter (at fins) Length Weight Thrust	10. 41 in.	Box: Weight (with contents) Dimensions: W/metal container	53.0 lb 29-9/16 in. x 14-1/16 in. x 6-19/32 in.
Propellant initiating	;		
train:		W/fiber	
Igniter:		container	$29-3/16$ in. $\times 13-7/8$
Model	M20A1		in. $x 6-19/32$ in.
Charge (black	0.105 0.007		
powder)	$0.125 \pm 0.007 \text{ oz}$ $3.54 \pm .2 \text{ g})$	Cuba	
Electrical	3.342 g)	Cube: W/metal	
squib	M9	container	1 6 63
admp		W/fiber	1. 0 II
Propelling charge:		container	1.5 4.3
Propellant:		Shipping and storage	data:
Model	M7	Storage class/	· · · · · · · · · · · · · · · · · · ·
Type	Solvent	SCG	1. 2C (12)
Configuration-	Monoperforated, cylin-	DOT shipping	
	drical extruded grains	class	В
	(12)	DOT	
Weight (new		designation	ROCKET AMMUNI-
	0.44 lb (200 g)		TION WITH EMPTY
Burning time:			PROJECTILES
At -20°F		Field storage	
At +120°F	0.02 sec	DODAC	1340-H601
T annahana.		Drawings:	00.00
Launchers:	Man Man A 1	Complete assy - Loading assy	
M29A2	M20A1B1, M20B1	Fuze	
M29A1	M20, M20B1	Packing (inner)-	_
*******		Packing (outer)-	
Packing	1 per metal/fiber	References:	
Č	container; 3 con-	TM 9-1340-222-2	20
	tainers per wooden	TM 9-1340-222-3	
	box		

SYMBOLS

FM 4-155, Reference Data (Seacoast Artillery and Antiaircraft Artillery) 1940 TABLE C.-Symbols for seacoast artillery fire-control maps, diagrams, and structures Part 1.—Basic symbols

Part 1.—Basic symbols Name	Abbreviation	Symbol
Harbor defense command post	HDCP	H
Groupment command post	Gpmt C P	
Fort command post	Ft C P	F
Gun group command post	GCP	G
Mine group command post	МСР	M
Seacoast battery command post	ВСР	(BC)
Harbor defense observation station	HDOP	H
Groupment observation station	Gpmt O P	C
Fort observation station	Ft O P	F
Gun group observation station	GOP	
Mine group observation station	M O P	\bigwedge
Battery observation station	ВОР	B
Emergency observation station	EOP	E
Antiaircraft observation post	AAOP	$\overset{\texttt{AA}}{\triangle}$
Battery spotting station	SOP	Ś
Separate observation station	O P	

Name	Abbreviation	Symbol
Operations and plotting room	O P R	
Plotting room	P	P
Self-contained base range-finder station	R F	RF
Magazine	Mg	Mg
Shellroom	S Rm	S Rm
Temporary or improvised fire-control structures	Imp	lmp
Mine casemate	MC	MC
Mine loading room	LR	LR
Searchlight, 60-inch seacoast	SL	E
Searchlight, seacoast, other than 60-inch	SL	
Antiaircraft searchlight	AASL	EL AA
Searchlight shelter	S Sh	s sh
Searchlight powerhouse	SPH	-s-
Searchlight controller booth	СВ	0
Data booth	Data B	
Watchers booth	W Bth	\oplus
Meteorological station	MET	M

Name	Abbreviation	Symbol
Tide station	Td	T
Signal station	SS	SS
Fire Control switchboard room	FSB	
Post telephone switchboard room	PSB	
Combined fire-control & post telephone S B room	FSB PSB	\boxtimes
Cable terminal	C Ter	
Powerhouse	PH	
Radio powerhouse	RPH	-R-
Central powerhouse	CPH	-0-
Pumping plant	P P	-P-
Datum point		OR O
Triangulation station		♣ OR A
Intersection point		O Black Beacon
Benchmark	ВМ	BM X 1232
Lighthouse	LH	*

Part 2.-Numbers for harbor defense installations.—a. In harbor defense, seacoast artillery installations of each type are numbered consecutively from right to left, facing the center of the field of fire of the harbor defense. Antiaircraft installations pertaining to the harbor defense may be numbered in any convenient sequence.

b. Groupments, gun groups, mine groups, batteries, and all installations functioning directly under the harbor defense commander, such as harbor defense observation stations, searchlights, and underwater listening posts, are numbered consecutively, each type in a separate series, beginning with number 1. These numbers normally are shown as subscripts to the letter included in the appropriate symbol. Exceptions are included among the examples that follow.

Name	Abbreviation	Symbol
Harbor defense observation station	HDOP ₃	A.
Fort observation station	Ft O P ₃	F
Antiaircraft observation post	AAOP2	AA 2
Magazine or shell room	Mg 2 or S Rm 2	Mg 2 SRm 2

c. Groupment, group, and battery observation and spotting stations assigned to a unit are numbered consecutively within the unit, each type in a separate series, beginning with number 1. These numbers are shown as superscripts to the letter included in the appropriate symbol, the unit number remaining as the subscript.

Name	Abbreviation	Symbol
Groupment observation station	Gpmt ₂ O P ₂	
Gun group observation station	$G_2 O P_1$	G ₂
Mine group observation station	$M_2 O P_1$	
Battery observation station	B ¹ , O P	
Spotting station	S ¹ ₃ O P	
Emergency observation station	E ₂ ¹OP	<u>E</u>
Temporary or improvised fire control structures	B ₃ ² Imp.	B ² imp

d. In certain cases it is desirable to show additional information regarding an installation, such as its size and whether fixed, portable, or mobile. Such information is placed either in the symbol or to the right thereof.

Name

Abbreviation

Symbol

60-inch seacoast searchlight; fixed, portable or mobile. SL 2F (P or M)

Seacoast searchlight other than 60-inch

SL³⁶_{3P}

Antiaircraft gun battery or composite battery, fixed or mobile.

A A No. 2 (F or M)

e. Where two stations are combined in one room, the symbols are superimposed one upon the other, and the letters representing each station are inclosed in the combined symbol.

Name

Abbreviation Symbol

Combined groupment command post and fort command post.

Combined battery observation and spotting station.

Combined group command post and battery command post.

Combined battery command post and battery observation station.

Abbreviation Symbol

Gpmt Ft Cp

B²

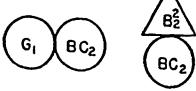
G¹

BC²

Combined battery command post and battery command post and battery observation station.

B₂C P B₂²O P

f. Where stations are adjacent in the same structure, the symbols are tangent to each other and are arranged to show the relative location, as:



g. Where communication may be had by voice through a passage, door, window, or voice tube, the symbols are left open at the point of contact, as:

CHAPTER 5 TRAINING METHIC DS

Section I. GENERAL

150. General

- a. The OQ-19D airplane target is used for training in antiaircraft marksmanship with light antiaircraft weapons. Antiaircraft marksmanship training using the OQ-19D airplane target will follow training on other types of antiaircraft targets except rocket targets.
 - b. The advantages of the target ar:
 - (1) It presents the appearance f an airplane.
 - (2) It is more maneuverable than towed targets.
 - (3) It is more flexible to use than towed targets.
 - (4) It may be operated by the using arm.
 - (5) There are no canned courses because the controller can vary the range, elevation, and direction of flight of the target.
 - (6) It can operate in inclement weather that would ground air missions.
 - (7) It can be used where air missions are not available.
 - (8) It is relatively inexpensive to operate.
- c. A disadvantage of the target is its one-third representative appearance ratio to a fighter-type a.rplane. The target's speed is approximately one-third that of a fighter-type airplane. The speed of the target is constant, so in order to simulate the speed of fighter-type aircraft for tracking purposes, courses may be flown at reduced ranges.

151. Safety Precautions

Normal safety precautions are prescribed in SR 385-310-1.

- a. Firing or Tracking Unit.
 - (1) The unit using radio-controlled airplane targets for firing or tracking missions will appoint a safety officer for the prevention of accidents.
 - (2) The unit safety officer will see that no personnel are within the danger area of the type launching device used.
 - (3) All firing must be controlled by suitable signals or commands. COMMENCE FIRING and CEASE FIRING must be given in such a manner as to be promptly and clearly understood by everyone engaged in firing. Assist-

- ants and coaches must be trained to transmit the signals promptly.
- (4) At least two assistants to the safety officer (one at each end of the firing line) will be designated to assist the officer in charge of firing and the safety officer in carrying out all safety precautions. They will also act as observers for the purpose of notifying the safety officer and the controller when man-carrying aircraft approach the zone in which the target is flying. The controller will take any steps necessary to prevent an air collision.
- (5) The unit safety officer will brief the unit on the dangers of targets going out of control and crashing into the gun positions. He will warn all men to take cover in the event the target comes toward their position.
- (6) The unit safety officer should install radio or telephone communication from the controller to the control tower. The safety officer will have a siren, horn, or whistle that can be heard and understood by all and will set up a warning system to warn personnel when the target is out of control. When the controller loses control of the target, he should immediately relay the message TARGET OUT OF CONTROL to the control tower. The tower attendant will then use the warning device to warn all personnel, or will immediately call over the hot loop to all 1 un positions, TARGET OUT OF CONTROL, TAKE COVER.
- (7) TM 44-234 and local safety regulations, prepared by the conn landing officer of the local installation or area, will be consulted and observed at all times.

b. Flying.

- (1) At no time will a controller operate a target over personnel or equipment.
- (2) The target detachment commander will observe all safety precautions prescribed in this manual, SR 385-310-1, TM 44-234, and local safety regulations.
- (3) The target detachment commander will check periodically with the area frequency coordinator to insure that no outside interference will cause the loss of control of targets.

c. Catapult Launching.

(1) When choosing the au ching site, a lane 100 feet to each side of the catapult and 100 yards long behind the catapult must be cleared so that the blast of the jet will not injure personnel or damage equipment (fig. 50).

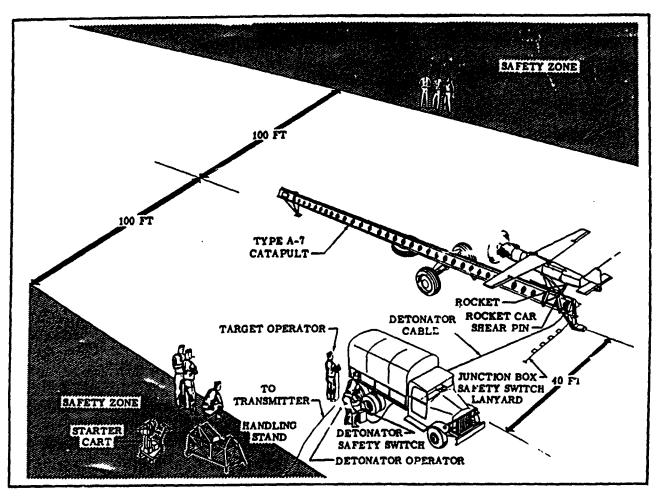


Figure 39. Catapult launching safety areas.

- (2) When the target is placed on the launching car and the car is in firing position, the launcher chief will see that the car is properly pinned in position, making sure the shear washer is on properly and that a cotter key of the correct size is installed. He will then check the connection where the target is 1 nned to the launching car, taking the same precautions. This will prevent the target from running forward when the engine is started, causing the propeller to hit the starter and the personnel operating it.
- (3) When the jato unit is placed in the cradle under the launching car, it will not be plugged into the socket on the catapult until the rest of the target is properly checked and ready to be launched. At this time the man in charge of the detonator box will check it, making sure the plunger is pushed all the way down and the safety switch is in the SAFE position. He will then check the launching area to insure that all personnel and equipment are a safe distance from the catapult. When satisfied, he will signal the launcher chief who will plug the jato unit connection into the catapult and pull the lanyard on the catapult to the FIRE position.
- (4) When a number of jato units are taken to the range, they should be stored in a cool, dry place. Avoid direct heat or sun on the units. Return all unused jato units to the ammunition dump for storage.
- (5) In the event a jato unit should misfire, follow the steps listed in paragraph 75.

d. Rotary Lounching.

- (1) A proper inspection should be made to insure that the rotary launching track is free of any obstacle (stones, excess sand, etc.) that would cause the launching car to leave the track.
- (2) A check of the bomb-shadde release mechanism should be made to insure proper operation. The ignition ground switch will be checked.
- (3) All vehicles and personnel should be cleared from the outer edge of he track to a safe minimum distance of 150 yards price to launching (fig. 15).
- (4) All launching: gnals will be agreed upon by the launcher chief and the controller prior to the launching of of a target. If, upon signal from the controller, the target does not release within one turn of the track, the motor will be turned off by pressing the ignition ground switch on the release control box, the equipment will be checked and the defect remedied.

Section II. LIGHT ANTIAIRCRAFT ARTILLERY AND MEDI-UM AND HEAVY ANTIAIRCRAFT ARTILLERY TRAINING

152. Light Antiaircraft Artillery

- a. The OQ-19D radio-controlled airplane target is used in the training of light antiaircraft units. It is used for both radar tracking and firing practice.
- b. Fire control methods and procedure for firing may be found in TM 44-234.

153. Courses

The controller will be directed by the officer in charge of the practice as to type of courses desired and their sequence. After preliminary training with the target, the machine gunners and fire units will not be given information as to the type of courses to be flown. The machine gunners and fire units will be trained to engage a target whenever it is in a safe field of fire regardless of the course. Information on the types of courses to be flown for the various types of light antiaircraft artillery weapons may be found in TM 44-234.

154. Medium and Heavy Antiaircraft Artillery

The OQ-19D target is given high altitude flight characteristics for gun firing by making the RPS-4B autopilot an integral part of the target. This combination becomes the OQ-19B target. Since the RPS-4B autopilot is only a substitute standard item, with development continuing, the OQ-19B target had not been included in this manual.

SET K951/K952

WAR GAS IDENTIFICATION SET, INSTRUCTIONAL M1

SET GAS IDENTIFICATION, DETONATION M1

OLD STOCK NUMBER: FSN 1365-025-32/3 (K951)

FSN 1365-025-3783 (K952)

TIME FRAME OF USE: EARLY 1930's to LATE 1950's

The K951/K952 CAIS contained 48 pyrex, flame sealed ampules, 12 each containing 1.4 ounce solution of Mustard (H, 5% in chloroform) Lewisite (L, 5% in chloroform), Chloropicrin (PS, 50% in Chloroform), and Phosgene (CG) for a total of 26 fluid ounces (0.768 liters) of agent, less the chloroform, per set.

Each ampoule is 1 inch in diameter and 7 1/2 inches long. Each ampoule is packed in a cardboard screw cap container (mailing tube-type) with agent type indicated by letters on the cardboard container. Twelve (12) cardboard containers each are packaged into 4 press fit metal cans which are 9 1/4 inches high. The cans are packed into a steel cylinder 6 5/8 inches in diameter, approximately 38 inches long and 0.145 inches thick. The open end of the cylinder is closed by a flanged end cover which is secured by eight bolts.

The only difference between the K951 and K952 is that the K951 was issued with blasting caps that were packed and shipped in a separate container (See Figure 4).

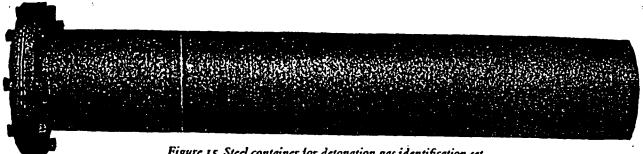


Figure 15. Steel container for detonation gas identification set.

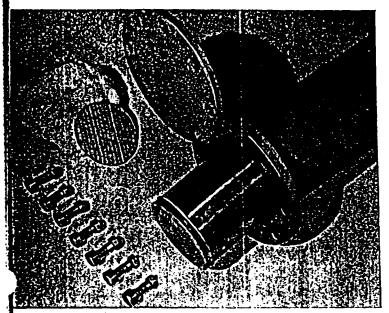


Figure 16. Five multiple containers are packed inside steel container. Always leave one lid bolt attached to steel tube so lid may be closed quickly in an emergency.

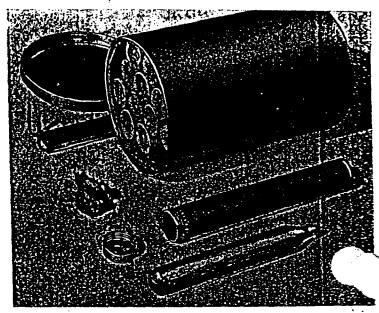


Figure 17. Twelve tubes are packed in each multiple container. Cotton wad fits in end of each cardboard tube. Strip of adhesive plaster is placed in each can for attaching detonators.

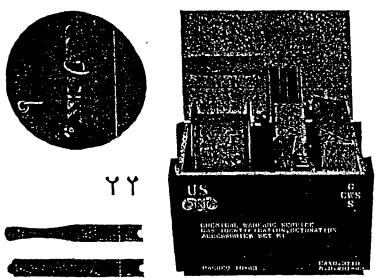
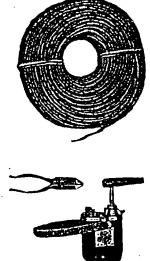


Figure 18. Accessories kit for detonation gas identification set includes items shown: 1,000 feet of No. 18 B and S gage firing wire, 500 feet on a reel and 500 feet coiled; a 10-cap blasting machine; 8-inch side-cutting pliers; two



handles for the reel, and screws to hold the handle in place. These accessories are packed in a compartmented box 23 inches long, 141/2 inches high, and 131/2 inches deep. All items except handles are treated and/or wrapped to protect against water and rust.

SET K941

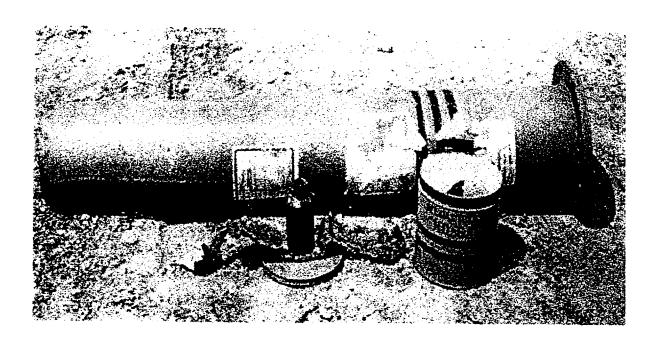
TCXIC GAS SET, M1

OLD STOCK NUMBER: FSN 1365-219-8574

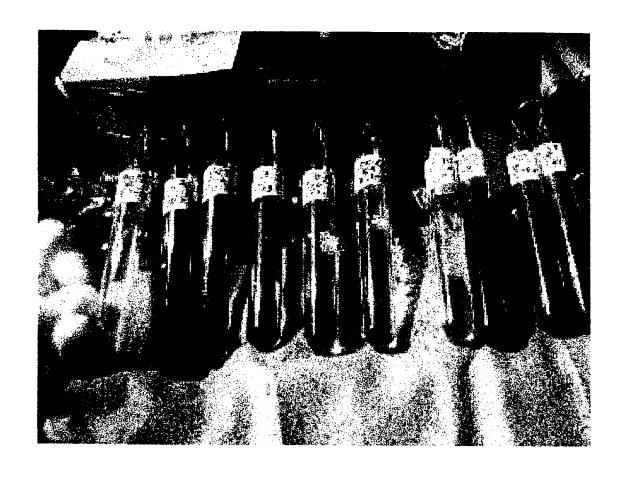
TIME FRAME OF USE: WWII - LATE 1950's

The K941 CAIS contains 24 glass bottles, each containing 3 1/2 ounces of Mustard (H) or Distilled Mustard (HD) for a total of 84 ounces (2.48 L) per set.

Bottles are round and have a small screw top. Heat resistant paint on the bottles indicates "H", "HS", or "HD", "TOXIC GAS SET, M1." Four bottles are packed in 1/2 inch layers of sawdust within a sealed metal can. The Cans are pressure sealed, 6 1/4" high, and have a sardine-type key on the bottom. Six of these metal cans are fitted into a steel shipping cylinder that is 6 5/8 inches in diameter, approximately 38 inches long, and 0.145 inches thick. The open end of this container is closed by a flanged end cover which is secured by eight bolts tightened over a 1/8 inch thick lead gasket (See Figure 1).



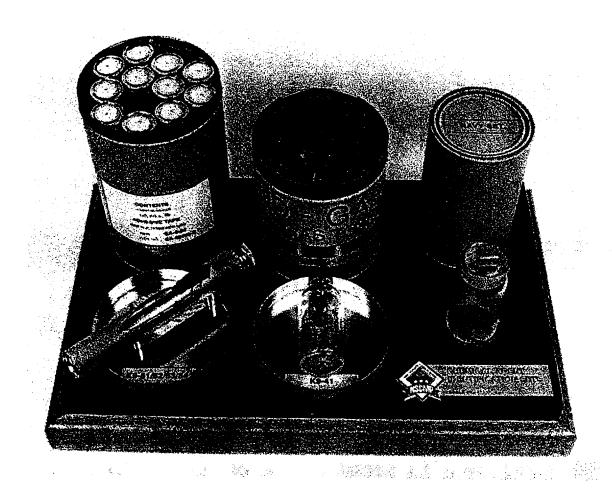
TOXIC GAS SET, M1, K941: HD, 2.5 LITERS, 24 BOTTLES



CAIS AMPOULES



CHEMICAL AGENT IDENTIFICATION SETS (CAIS)



CHEMICAL AGENT IDENTIFICATION SETS (CAIS)



BOTTLE OF HS MUSTARD

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX E

REPORTS/STUDIES

APPENDIX E REPORTS/STUDIES

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- E-1. Camp Hero INPR (Site No. C02NY002400), 2 September 1991, Amended 14 July 1998 (B-21).
- E-2. Modernization Program Report Describing Harbor Defense Requirements for Camp Hero, 1941 (B-22).
- E-3. Supplement to the Harbor Defense Project Report Updating Harbor Defense Requirements for Camp Hero, 7 March 1945 (B-23).
- E-4. Report of Completed Works for Camp Hero, circa 1945 (B-24).
- E-5. $773^{\rm rd}$ Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 January through 31 January 1951 (B-25).
- E-6. 773rd Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 February through 28 February 1951 (B-26).
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- E-8. 773rd Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 April through 30 April 1951 (B-28).
- E-9. 773rd Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 May through 31 May 1951 (B-29).
- E-10. 773rd Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 June through 30 June 1951 (B-30).

- E-11. 773rd Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 September through 30 September 1951 (B-31).
- E-12. 773rd Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 October through 31 October 1951 (B-32).
- E-13. 773rd Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 November through 30 November 1951 (B-33).
- E-14. 773rd Aircraft Control and Warning Squadron Historical Report Describing Army AAA Activity and General Air Force Activity at Camp Hero for the Period 1 December through 31 December 1951 (B-34).
- E-15. First Army Historical Report Describing the Coastal Defense Fortifications of Long Island, New York, to Include Camp Hero, 14 January 1958 (B-35).
- E-16. 773rd Aircraft Control and Warning Squadron Historical Report for the period 1 January 1958 through 31 March 1958, Describing the Available Air Force Small Arms Weapons at Camp Hero and the Qualification of these Weapons on a Constructed Range (B-36).
- E-17. 773rd Aircraft Control and Warning Squadron Historical Report for the period ending 31 December 1961, Describing the Air Force Qualification of Small Arms Weapons (B-37).
- E-18. 773rd Radar Squadron (SAGE) Historical Report for the periodEnding 31 December 1963, Describing General Mission Information and the Movement of the Supply Section from the Old Gun Bunker of Camp Hero (B-38).
- E-19. Installation Survey Report of the Montauk Air Force Station, 10 May 1972 (B-39).
- E-20. U.S. Army Program Manager for Chemical Demilitarization Survey and Analysis Report Describing a 1945 Chemical Defense Training Exercise at Camp Hero, December 1996 (B-40).
- E-21. New York State Office of Parks, Recreation, and Historic Preservation Report Descibing Historical and Archeologically Sensitive Sites Associated with the Former Camp Hero (B-41).

E-22. New York State Department of Environmental Conservation, Division of Fish, Wildlife, and Marine Resources Report Listing Endangered, Threatened, and Special Concern Fish and Wildlife Species on or in the Vicinity of Former Camp Hero Lands, 6 October 1999 (B-42).

SITE SURVEY SUMMARY SHEET (Amended) FOR DERP-FUDS SITE No. C02NY0024 CAMP HERO MONTAUK, NEW YORK 14 July 1998

SITE NAME: Camp Hero

LOCATION: Montauk, Suffolk County, New York

SITE HISTORY: Camp Hero was part of the Long Island Harbor Defense System utilized by the Department of the Army and Air Force for the defense in case of an attempted invasion by enemy forces.

SITE VISIT: Storch Engineers under contract with U.S. Army Corps of Engineers, New York District conducted site investigations at Camp Hero, a former Army and Air Force Base located at Montauk Point, New York on October 11 and 12, 1990. During their investigations they uncovered five former gun bunkers at the site. These were constructed as shore defense batteries during the WW II era. The actual guns were reportedly removed around 1950. All that remains are the concrete bunkers formerly used to store and protect ammunition, the gun carriage, and drive motors. Cashin Associates under contract with the New York State Office of Parks, Recreation and Historic Preservation also visited the site and conducted feasibility study on June 1998. During their investigations one location was found to contain fragments of artillery shells. This finding is consistent with informal reports that pieces of artillery shells and casings are occasionally found along the bluff after periods of erosion. None of the observed fragments appeared to be lived ammunition. Nevertheless, the finding of any artillery piece is significant because other live ammunition might also be discarded or buried in the ground during past military activities in the area. An archive search and intrusive investigations shall be conducted by CEHNC to determine if there is possible presence of ordnance and explosive (OE) discarded or buried in the ground. Since Camp Hero was utilized as an Army and Air Force Base the policy and procedures regarding OE based on the Standard Operating Procedure (SOP) August 1994 of CEHNC makes this site eligible under the DERP-FUDS program. Therefore, an OE project will be recommended.

CATEGORY OF HAZARD: OE

PROJECT DESCRIPTION: Possible presence of medium/large caliber ordnance and explosive (OE) discarded or buried in the ground that requires further investigation to be initiated by CEHNC.

FOR DERP-FUDS SITE No. C02NY0024 CAMP HERO MONTAUK, NEW YORK 14 July 1998

(Continuation)

AVAILABLE STUDIES: Storch Engineers Camp Hero Inventory Project Report conducted on October 11 and 12, 1990 and Cashin Associates, Camp Hero Feasibility Study prepared for New York State Office of Parks, Recreation and Historic Preservation, Babylon, New York, dated June 1990.

PA POC: Mr. Constancio J. Labeste, (212) 264-0255 is the New York District POC.

PROJECT SUMMARY SHEET (Amended) FOR DERP/FUDS OE PROJECT No. C02NY002403 CAMP HERO MONTAUK, NEW YORK 8 July, 1998

PROJECT DESCRIPTION: There are five former gun bunkers located on this site. The actual guns were completely removed around 1950. All the remains are concrete bunkers formerly used to store and protect ammunition, gun carriage, and drive motors.

PROJECT ELIGIBILITY: The site was part of the Long Island Harbor Defense System utilized by the Department of the Army and Air Force for the defense in case of an invasion attempt by enemy forces. Based on the Standard Operating Procedure (SOP) of CEHNC, this area should be investigated for possible discarded or buried ordnance and explosive (OE) in the ground. Since the Army and Air Force used the area, the site is eligible for OE cleanup under the DERP-FUDS program.

POLICY CONSIDERATION: There is no policy, which prohibits the proposal of this project. The project site, which was used by the Army and Air Force, is eligible for cleanup under the DERP-FUDS program, if it poses a safety hazard.

PROPOSED PROJECT: The proposed project requires further investigations at the former locations of five gun bunkers and surrounding areas to be initiated by the CEHNC to evaluate possible discarded and buried ordnance and explosive (OE) materials.

DEFENSE ENVIRONMENTAL RESTORATION PROGRAM FORMERLY USED DEFENSE SITES PROGRAM FINDINGS AND DETERMINATION OF ELIGIBILITY

Camp Hero, Montauk Point, Long Island, New York

Site No. CO2NYOO2400

FINDINGS OF FACTS

- 1. This 468.49 acre property was acquired through purchase and condemnation proceedings by the Department of Defense (DOD) between August, 1941 and May, 1944 for use as a Department of the Army harbor defense installation for Long Island Sound. Between April, 1951 and December, 1972, the Department of the Army transferred 307.65 acres to the Department of the Air Force for use as an Air Force station. Between July, 1974 and April, 1983, the State of New York acquired all of the property by quitclaim deed with no recapture or, restoration clauses, but with a restrictive clause limiting the use to public park purposes.
- 2. The LILCO building and the motor pool, currently occupied by a state Park Service employee, are not eligible for remediation. The remaining facilities have not been used by the New York State Park system.

DETERMINATION

Based on the foregoing findings of fact, the site has been determined to be formerly used by the DOD. Therefore, it is eligible for the Defense Environmental Restoration Program for Formerly Used Defense Sites established under 10 USC 2701 et seq.

Recommended for Signature:

30 May 91

R. M. DANIELSON

COL, EN Commanding

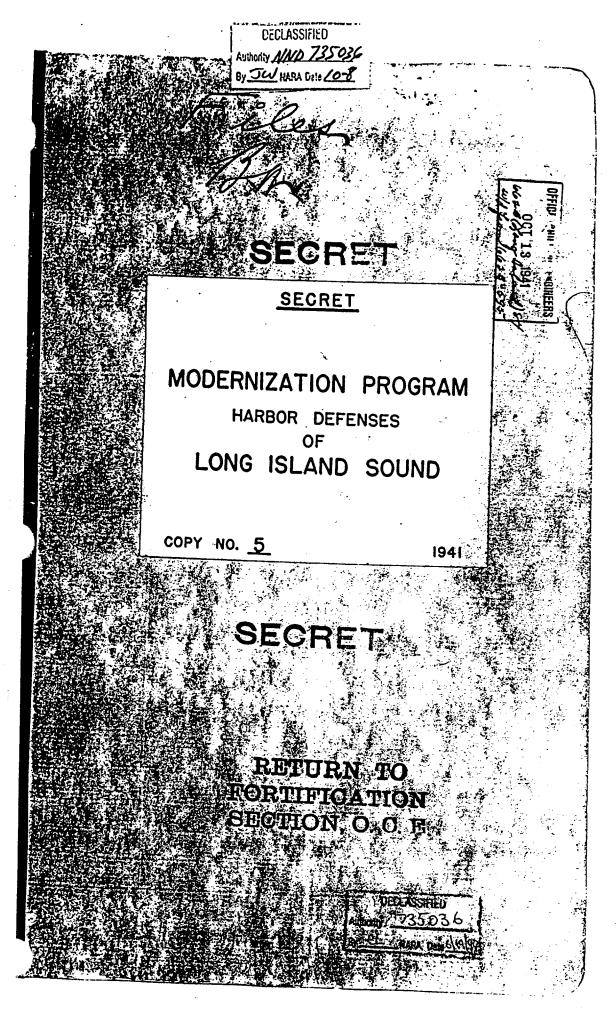
Approval:

Date

GERALD C. BROWN

Brigadier General, USA

Commanding

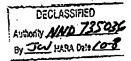


HARBOR DEFENSES OF LONG ISLAND SOUND LOCATION NUMBERS

- 1. In order that all existing and proposed installations in the First Coast artillery District may be identified readily and referred to briefly, each locality selected has been given a "Location number". The series starts at the most southern point and continues from south to north, west to east, and right to left.
- 2. All location numbers between 1 and 100 are in the Providence or the New York Engineer Districts. (Harbor Defenses of Long Island Sound, Marragansett Bay and New Bedford). All numbers above 100 are in the Boston Engineer District. (Harbor Defenses of Boston, Portsmouth and Portland).
- 3. Numbers 1 to 9 in the Providence-New York districts and 100 to 109 in the Boston district are reserved for future use.
- 4. Each separate area selected for an installation at a location has been assigned a "Site number" in accordance with the same rules as for location number assignments.
- 5. Each installation within a site has been designated by a letter assigned by the above rules. Thus, the exact position of Battery Construction No. 215, located at Fort Tright, Earbor Defenses of Long Island Sound is designated as Location 21, Site 1-F.

N	humber	Location	Latitude	Longitude
	30	- ·	1.00.000	
	10	Easthampton	40° 57'	72° 11′
	11	Amagansett /	40° 58°	72° 07'
	13	H111 100 /	11. 01.	71° 591
	134	Dutch Plain /	71. 01.	72° 00'
	13E	Culloden Point	itz. Ott.	71° 58'
	15	Shagwong Point	11°05'	71°54'
	16	Montauk Point	41° 04°	71° 52'
	17	Whale Hill/	Ы• 06°	72° 05'
	18A	Fort Tyler	41° 061	72° 091
	19	Fort Terry	41. 11.	72° 11'
	20	Fort Michie	41° 12'	72* 071
	21	Fort Wright	41° 15'	72* 021
	22	North Hill	41° 16'	72* 01'
	25Y	Clay Point	41. 17.	72* 00'
	23	Novat Prospect	41° 15'	72* 00'
	23A	Wilderness Point	41° 15'	72* 00
	2/1	¥111 90	41. 17.	71* 55'
	25	Æäst Point	41. 17.	71* 55'
. •	26A /	Pine Island	<u>і</u> і. 19	72° ÓĹ¹
	26B/	Avery Point	41 19	72° 04'
	26¢	Fort Trumbull	41° 21'	72* 061
	27-1	Napatree Island	41. 18.	71* 531
	2 7-2	Watch Hill Point	41. 16.	71° 51'
	/28 ·	Watch Hill	41° 19'	71° 50'
_/	29	Noyes Point	41. 50.	71 45
/	31	Charlestown	Ħ1. 55.	71. 42.
/	32	Green Hill	41. 55.	71° 36'
	32 60	Beacon Hill	41. 10.	71. 35.

SECRET



EARBOR DEFENSES OF LONG ISLAND SOUND LOCATION NUMBERS

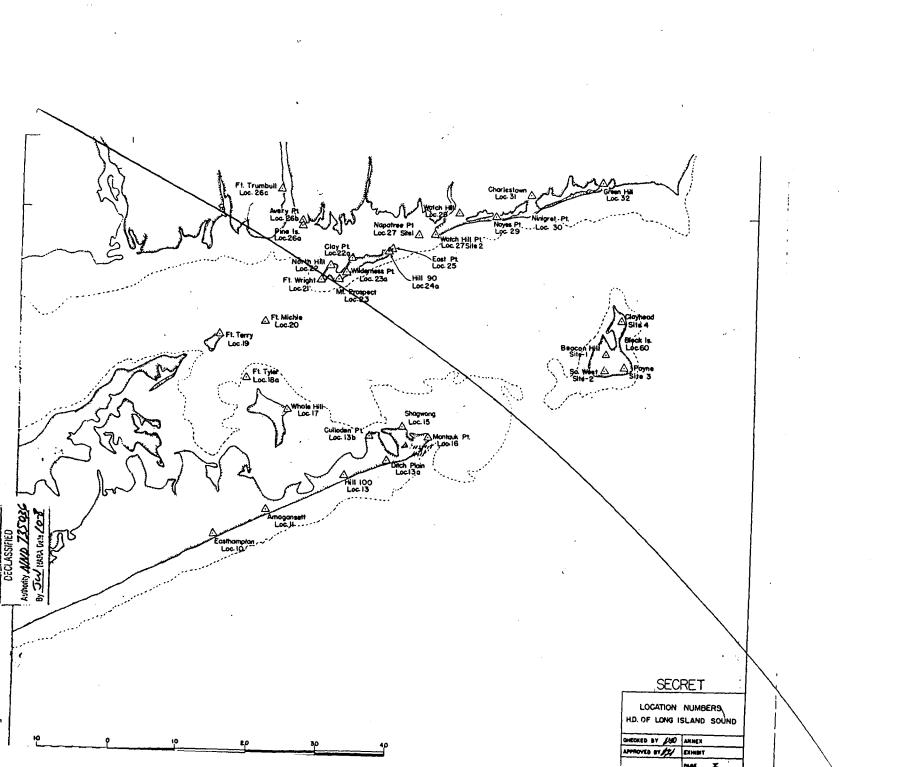
- I. In order that all existing and proposed installations in the First Coast intillery District may be identified readily and referred to briefly, each locality selected has been given a "Location number". The series starts at the most southern point and continues from south to north, west to east, and right to left.
- 2. All location numbers between 1 and 100 are in the Providence or the New York Engineer Districts. (Earbor Defenses of long Island Sound, Marragament Bay and New Bedford). All numbers above 100 are in the Boston Engineer District. (Marbor Defenses of Boston, Portsmouth and Portland).
- 3. Mumbers 1 to 9 in the Providence-New York districts and 100 to 109 in the Boston district are reserved for future use.
- 4. Each separate area selected for an installation at a location has been assigned a "Site number" in accordance with the same rules as for location number assignments.
- 5. Each installation within a site has been designated by a letter assigned by the above rules. Time, the exact position of Battery Construction No. 215, located at Fort "right, Harbor Defenses of Long Island Sound is designated as Location 21, Site 1-B.

Mumber	Location	Latitude	Langitude
10	Zasthampton	40* 57*	72* 11'
11	Amaganaett	ب85 •0با	72° 07'
13	H111 100	71. 01.	71 59°
13A	Datch Plain	71. 01.	72" 59" 72" 00"
13E	Culloden Point	71. 02.	71° 58'
132 15 16	Shagwong Point	11. 07. 11. 02.	71°58° 71°54°
16	Montauk Point	41° 04°	72° 52′
17	Whale Hill	11, 66,	72° 05'
184	Port Tyler	ұд° 08:	72° 09°
19	Fort Terry	41° 11'	72* 111
20	Port Michie	141. 15.	72° 07'
21	Fort Wright	141 * 15 *	72" 02"
22	North Hill	41° 16'	72* 01:
22A	Clay Point	41° 17'	72* 001
23	Mount Prospect	41° 15'	72" 00"
231	Wilderness Point	μι° 15'	72* 00
Aبلغ	111 90 '	41° 17'	71* 55*
25	East Point	41° 37°	71" 55"
26A	Pine Island	41. 19.	72° 04'
268	Avery Point	11° 19°	72° 04'
26C	Fort Trumbull	m, 51;	72* 061
27-1	Mapatree Island	11. 18.	71* 531
27-2	Watch Hill Point	41 18:	72 52
Ã.			
N	MICH IIII	11 191	71 501
3 1 5ò	Noyes Point	71, 50,	71° 45°
31	Charlestown	اباء 55،	72° 42°
32 60	Green Will	77. 55.	71° 36'
60	Beacon Hill	41° 101	71* 351

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I

FAX NO.



DECLASSIFIED
Authority NND 73503C
By JW HARA Date 10-8

SECRET

Form #1. Annex A

H. D. of L.I.S.

LIST OF RATTYRIES UPON COMPLETION OF MODERNIZATION PROGRAM

	Battery	·No.		<u>,</u>	Direc	+ -	1+		Field o	f Fire
Pag : Log !	Name or Construc-	.001	· Cann	; _	necent	• •	<u> </u>	-;-	Toft !	Right
Mc.: Loc.	Name or Construc-	CRI.	37-	ੁੱ	resent	, . A	ecom-	:	Timir .	Timit
NO.: NO.:	tion Number	: Guns	: NC	÷		• #	enueu	÷	TIMIT (.	DIMIG
1 16	Const. # 112	2-16	" 1	_	350		350		277°30	62°301
2 16	Const. # 113		" 1		306	:	306	:	233 ⁰ 30	18 ⁰ 301
3 : 16 :	: Const. # 216	: 2-6"	2:1	:		:	248 #	:	168 :	3 28
4 19	Dalliba	2-3"	_		329		329		259	39 **
5 19	: Const. # 217	: 2-6"	1	:	n 263	:	263	:	183	343
6 : 20	: Eaitland	: 2-6"		:		:		:	270 :	50
7 20	Benjamin	2-6 ^m	2.		195°0				125°06	
8 21	Const. # 215	2-6"	1	:	324 n	:	350	:	270	70
9 : 21	Hoppock	: 2-3"	2 : 1	:		:		:		
	Const. # 111				325		325 11		252030	
11 :23A	Const.# 214	2-6"	: 2	:	302 #	:	330	:	250	50 #
12 : 28	Const. # 114 Elec	. 2 - 16	2 1:1	:		0.	8 ⁰ 5	0,8	296°20	
	Hoffman									207 ⁰ 30
14 * 22	: Eldridge	: 2-3"	1 1	:		:	180	:	9°30;	250
	and the second of the second		4							
1	And the second	:	:	:		;		:	terior :	H Teny
	Planth to I Fin					, •2	ردو		ションバ ニュニ	g grander gen
	Contration in	وردنع	A. 18	٠.			•		-	10 ME
:	ide in some	3 11	194	. :) 4. 2	. :	<i>;</i> *	:		•
			•	•	•	:		:		!
	* See paragrap	h 2, 1	innex	.)	•	•		•		•
: .	:	:	;	;		:		:		:
•	:	:	•	•		:		:		:
•		•	•	•		•		·		
:	:	:	:	:		:		:		:
:	ŧ	:	:	:		:		:		:
: .	t	:	:	:		:		:		:
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DECLASSIFIED
Authority NND 73503C
By TW MARA Data Co-8

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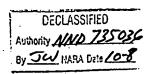
Form #3. Annex A.

H. D. of ______ L. I. S.

BATTERIES "TO BE CONSTRUCTED"

Sites for the tollowing besteries (those under construction end those to be constructed) have been approved by the Secretary of Wer.

Pri-			Bettery	:Cesemate:		:	:Estimated
rity	:Tacti-	:Loc.	: Name or	: or :	Exhibit	:Acreag	e: cost
	cel No.	ભાત.	: Construction No.	: Shield :	<u> </u>	<u>:</u>	: of lend
3	1	: 16	112)	: Casemate	1-I-7	47 0	270,000.00
3	: 2	: 16	: 113	:Casemate:	1-1-7	:	:
2	. 3	16	216	Shield	1-1-7	•	•
2	5	19	217	Shield	1-1-10	None	•
2	: 8	: 21	: 215	:Shield	:1-1-12	: None	:
3	: 10	23A	: 111	Casemate:	1-I-16 :	: 130	\$ 260,000,0
2	11	23A	214)	Shield	1-1-16		
3	: 12	: 28	: 114	:Casemate	:1-1-23		
	:	:	:	:	:	TOTAL:	\$ 600,000.0
	NOTE:	Land	procurement for batte	ry Constr.	#216 and	#113 i	s included
	:	_	rchase price of land		,		:
	:	Land	procurement for batte	ry Constr. 7	#111 and	1 _: #214 1	s included
		in pu	rchase price of land	for Battery	Constru	ction#	111.
	:	:	:	: ,	:	:	:
	: NOTE:	Çonst	ruction approved by t	he 5th Ind.	WD, A	io, file	no. AG 660.
		(11-9	-40) M*WPD, dated Feb	. 14, 1941.			
	:	:	:	:	:	:	:
•							
	:	<u>:</u>	:		:	:	:
OTE :	follo	wing For (1)	tabulation for each information: betteries "Under Cor Reference to correst board action. Status of the const:	nstruction"- pondence sho			
	1	o. For	betteries "To be Con Reference to correspond action.	astructed"-	wing ap	provel (of site



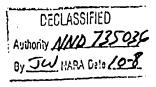
Form #9. Annex A

H. D. of L. I. S.

ADDITIONAL BOMB-PROOF MAGAZINES

REQUIRED

	-: -		ption	: Place and		Ammunition	
		tem: of		Location	:Site:	Storrge for	; _ to
No.	<u>:</u>	No.: Pro1	ect	: No:	! No.!	Brttery	: Forms
3	:	: Amm. Sto for 400	rage Wagazine rds. 16" Amm.	Nontauk Pt. Reservation Loc.# 16	: :	112-113	: 8-A-1 1-I-7
3	•	Amm. Sto	rage Wagazine rds. 16 ⁸ Amm.	Wilderness Pt. F.I.	: :	111	8-A-1 :1-I-16
3	:		rage Magazine rds. 16" Amm.	Watch Hill	: :	114	8-A-1 1-1-23
	:	Note 1.	400 rds. 6" A at Battery Pa	mma. for Batte	ry Benj	amin stored	!:
	:	:		:	: :		:
	:	Note 2.	Ammunition al by par. 8 a (OCCA., Subject Artillery Amm	5) and (6) Section 1	oret Le	tter, WD,	:
			Arcillery Amn	micron, date.	u vans	20, 10411	
	:	: Note 5.	800 rds 3" am	: mmition for 1	: Battery	Eldridge w	: rill be
	:	:	stored at Bat completion of	tery Barlow, : 'modernization	if appr		ain upon
	:	:	stored at Bat completion of	tery Barlow, biodernization	if appr		sin upon :
			stored at Bat completion of	'modernization	n:• :		:
	:	.;	stored at Bat completion of	modernization:	n:• :		:
	:	1	stored at Bat completion of	modernization:	n:• :		:
	:	·: :	stored at Bat completion of	inodernization	n:• :		:
	:	· · · · · · · · · · · · · · · · · · ·	stored at Bat completion of	<pre>inodernization : : : : : :</pre>	n:. :		:
	:	·: :	stored at Bat completion of	indernization	a: . : : : : : : : : : : : : : : : : : :		: : : : : : : : : : : : : : : : : : : :
	:	· · · · · · · · · · · · · · · · · · ·	stored at Bat completion of	indernization	n:. :		:



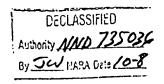
Form #10, Annex A

H. D. of Long Island Sound

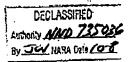
Cost Estimate and Priority Guide

FORTIFICATION CONSTRUCTION

Prisite		1	1		
or-:No.	s Description of Project	Ordnance	: Engineer	Land :	Total
		VI dalaboo			
1	LOCATION NO. 16 (Montauk I	<u>t.)</u>	1 1	: :	
2 ; 2 ;	New Battery Constr. #112 (2-16" guns, BC casemated) Gun carriages (2) Battery emplacement	870,000	; ; 1,500,000	270,000	2,640,000
5 ;	New BatteryConstr. #113 (2-16" guns, BC casemated) Gun carriages (2) Battery Emplacement	870,000	1,500,000	Loc. 16	2,370,000
2 ;	New Battery Constr. #216 (2-6" gums, BC shielded) Gum carriages (2) Battery Emplacement	: : : 150,000	200,000	Loc. 16	\$50,000
\$: : :	How construction: of two (2 termunition storage magazine bombproof for 400 powder charges for 16" guns, Each magazine 30' x 115' x 8'	ios !	: : : : 200,000	Loc. 16	200,000
3 : : :	Mew construction: of two(2 sammunition storage magazing thembyreef for 400 project; for 16" gums. Each magazingo' x 50' x 10' to LOCATION NO. 19 (Fort Terminal State of the sammunity of the sam	i None	t : : : : : : : : : : : : : : : : : : :	Loc. 16	130,000
2: : :	New Battery Constr. #217 (2-6" guns, shielded) Gun carriages (2) Battery Emplacement	150,000	t t t 200,000	Mil. Res	* ************************************
1;	Battery Dalliba (2-3" gumm battery) Overhead protection by Shiald	2,000	t t None	Mil. Res.	2,000
•	LOCATION NO. 20 (Ft. Mish		1	T	Y
1 :	Battery Maitland (2-6" gu battery) Overhead protect by shield	<u> </u>	i None	: : : Mil. Res	: : : : : : : :



Form 14. Annex B	H. D. of L. I. S.
BATTERY FIRE CONTROL	L REQUIREMENTS BY BATTERY
Name of Eattery Const.	. No. 112 Tactical No. 1
Type and Caliber Casemate, 16	Element of Group 1
Location 16	Place Montauk Pt., L.I., N. Y.
Classification:	To be Constructed.
Loca-:Site:Item:Fire: Exhi-:Appl tion : No.: No.:Conk: bit :Con	rox:Type of:Approx:Combined:Eround:Acreage rdi:Station: H.I.: with /:Eleva-:Required
No. 1 : :Sta.: :note	ec: :& Inst:Stations: tion: #Exhibit
16 1C BC 1-I-7	Cottage AI-112' BC-2 100' None
10 :1A : B1 S1:1-I-1:	Tower DPF-58": AAIS#1 : 5" : 0.1 Acre (2-H-1)
11 : 1A : B2 S2: 1-I-2:	Cottage AI-27' B1/10S1/10 15' (2-H-2)
13 1A B3 S3 1-I-5	Cottage XI-112:B1/1251/12 100: 1.5Acres (2-H-5)
15A 1B B4 S4 1-I-4	Cottage AI-92' B1/3S1/3 80' 1.5 Acres (2-H-4)
16 2A : : : : : : : : : : : : : : : : : :	Menhole AI-60 B3/386/3 60 None (1-1-7)a
16 '1B ' ' PR '1-I-7 '	Bomb- : : : 50 None (1-1-7)a
: : : :/	
NOTE: a-On site approved for p	rocurement. See Reference #2.
# - In this column enter also re	eferences to land procurement tabulations.
With the stations listed at will be approximately as follows	oeve, the BASE LINE DATA for this battery
Ease Lime :	: : :
From : / : Azimuth	: Length: Azimuth and length:
Station: Station :	: : were determined by:
	<u> </u>
B1 S1 / B2 S2 245° B2 S2 , B3 S3 245°	8300 Kap . 10750 . Map .
B3 S5 B4 S4 . 245°	: 10750 : Map : 6300 Map
B4 S4 B5 S5 235°	7100 Ma p
/ : :	: :
i i	: :



<u>8 2 C R E T</u>

Form 14. Ann	ox B	H. D. of	L. I. S.
F	ATTERY FIRE COETRO	L REQUIREMENTS BY BAT	TERY
Name of Fatts	ryConst	. No. 112 Tacti	cal No. 1
Type and Cali	ber Casemate, 1	6° Element	f Group 1
Location	16	Place Montauk	Pto, LoLo, No Yo
Classificatio	n:		To be Constructed.
Loca-:Site:It tion : Fo.: N	o.:Cont: tit :Ce;	ordi:Station: H.I. :	mbined:Ground:Acreage with :Eleva-:Required ations: tion: #Exhib
16 1c	BC 1-I-7	Cottage Al-112	BC-2 100 None
10 : 1A :	81 81: 1-1-1 :	TOWN DPP-681: N	プレース しょうしょうしょう
11 , 14	B2 82, 1-I-2	Cottage AI-27' Bl	
18 14	B3 S5 1-I-5	Cottage A1-112'Bl,	1361/13 100* 1.5Aores (2-H-3)
184 JB	B4 S4 1-I-4	Cottage AI-92' Bl	/861/2 80. 1.5 Acres (2-H-4)
16 24	B5 S5 1-1-7	Manhole AI-80' BE	· · · · · · · · · · · · · · · · · · ·
16 '18 '	PR 1-1-7	Bomb !	: 50: 'Wome (1-1-7)a
: ' :		t	t 1
ROLE' #-OF	site approved thr	procurement, See Refe	arence #2.
# - In this c	oloma enter also i	eferences to land pro	curement tabulations.
	. 		
	stutions listed s ximately as follow	ibovo, the RASE LINE D	ATA for this battery
From :	e : : Asimuth	: Longth: Asimuth	and loneths
Station: Stat			ormined by:
B1 S1 B2 S2 B2 S2 .B5 S3		8800 likp	
BS 83 B4 S4	2460	10750 Map 6300 Map 7100 Map	ı
B4 84 B5 81	, 400-	7100 1 5p	:
:	1		ı

Exhibit 58 Page 1 of

secret

DECLASSIFIED Authority MAND 735036 By Jan Nara Gale Long

	BATTERY PIRE CO	ontrol requirems	D. of L. I.	•
Wawa 10 Made			B Tactical No.	•
Type and Cal	liber Casema	ted, 16"	Element of Group	1
Location	16	Place	Montank Pt., L.	1., H.Y.
Classificat:	lon:	e e e e e e e e e e e e e e e e e e e	To be	Constructed.
Loca-(Site	ItemsFires Exhi-	Approxitype of	:Approx:Combined:	round: Aerosee
tion : No.:	No.:Cout: bit	:Coordi:Station	; H.I.; with ; I ; & Inst; Stations;	Sleva-:Required
16 1c	BC 1-1-7		المح د 1-112 م	1
12 : 13 :	Pl 52 1-7-3	_	%1-116*B2/1082/30	_
13A , 1A ,	B2 83 1-1-4	: :	A1-100'B2/1808/12	~ 80° (2= ₹-4)
16 28	B\$ 8\$ 1-1-7	•	DFF-100'	501 (1-I-7)a
60-2 23	84 84 1-1-2	8 Cattage	AI-178 B13/18512/	12 150 (1-1-28)b
60 - 3 ° 80 °	B5 S5 1-1-2	d College	LI-195 B14/10814/	10 186 _(1-I-29) b
60-4 1 44 1	'B6 86 1-I-3	6 Cottage	hpp-168*B6/386/3 [%]	140* Home (1=I=50)b
1 1	3 1 1 E			* # HO CA
BOTES: a-Ci	site approved	for procurement	. See Raference d Farraçansett Bay	· .
- In this	col'mm enter al	so references t	o land procurement	tabulations.
With the	he stations list		MASE LINE DATA for	this battory
		1	, ·	
	ine ı	th : Longth:	Azimuth and leng	rth:
Will be appr Base L Prom :	: Azimu	: `;	wore determined	ph:
Will be appropriate the second	: Azimu	6300	wore deformined	by:

Exhibit 5B , Pago 2 of 14 pages

SECRET

L. I. S.

BATTERY FIRE CONTROL REQUIREMENTS BY BATTERY

Name of Fattery — Const. No. 113 Tactical No. Casemated, 16" Element of Group 16 Location Place Montauk Pt., L.I., N.Y To be Constructed. Classification: Loca-: Site: Item: Fire: Exhi-: Approx: Type of: Approx: Combined: Ground: Acreage tion : No.: No.: Cout: bit : Coordi: Station: H.I. : with : Eleva -: Required :netes : ;& Inst:Stations / tion : # Exhibit Cottage AI-112 BC 1-I-7 10 None 100=(2-H-3) Cottage 11-115 B2/1082/10 13 1B: B1 S1 1-1-3: B2 S2 1-I-4 Manhole DPF-1001 16 B3 S3 1-I-7 Cottage AI-178 B12/12512/12 150 (1-I-28)b B4 84 1-I-28 Cottage AI-195 B14/1051 1/10 180 1-1-29)b B6 86 1-1-29 *CottageBPF-168*B6/386/3* 1B6 86 1-I-36

NOTES: a-On site approved for procurement. See Reference #2. b-On site to be acquired by H.D. of Marraganeett Bay.

- In this column enter also references to land procurement tabulations.

With the stations listed above, the BASE LINE DATA for this battery will be approximately as follows:

Base	Line			1	:		:
From :		;	Az imuth	:	Length:	Azimuth ar	
Station:	Stati	on :		1	1	were deter	mined by:
		$-\sqrt{1}$.:			
B1 81	B2 8	2.	245°		6300	Map	
B2 82	B3 8	8	235°	٠.	7100	Map	•
B4 S4 '	B5 8	5 '	268°	1	2200 ,	Map	•
B4 64	B6 8	6	207°		8100	Map	•
B5 85 ,	B6 8	6	170°	:	6800	Map.	. 1

SEGRBT

Exhibit SB Page 2 of 14 pages

BATTERY FIRE CONTROL REQUIREMENTS BY BATTERY

Name of Battery — Const. No. 216 Taotical No.

Type and Caliber Shielded, 6⁸ Element of Group 1

Location 16 Place Montauk Pt., L.I., W.Y.

Classification: To be Constructed.

Loca-:Site:Item:Fire: Exhi-:Approx:Type of:Approx:Combined:Ground:Acreage tion : No.: No.:Cont: bit :Coordi:Station: H.I.: with :Eleva-:Required
No.: ::Sta.: :nates: :& Inst:Stations: tion: #Exhibit Cottage AI-901 N-88 1 7811 Hoha (1-I-7)4 B1 81 1-I-4 1 , 14 , B2 82 1-I-6 DPF-100*R5/1035/10 75*± Hone BS 83 1-I-7 B4 84 1-1-17 Manhole AI-881 (2-H-8) : 1 201 (2-H-10)E Hone /Cottage AI-401 B4/1184/11 B5 85 1-I-22 CottageDFF-107/B10/2S10/2 100 (1-1-28)b B6 86 1-I-28

NOTES: a-On site approved for procurement. See Reference #2. b-On site to be acquired by H.D. of Marragansett Bay. g-Location on Coast Guard Property.

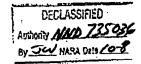
- In this column enter also references to land procurement tabulations.

With the stations listed above, the BASE LINE DATA for this battery will be approximately as follows:

	•	•				•
From :		muth :	Longt	:hr		•
tation: Station	:	:		:	were determ	ined by:
		- 1		:		
B1 81 B3 83	23	50	7100)	Map	
B2 82 B3 83	29		4200) _	Map	
B4 84 B5 85		150	6500) [*]	Map	ī
B6 S6 DPF T	Tortical	base .	•		_	

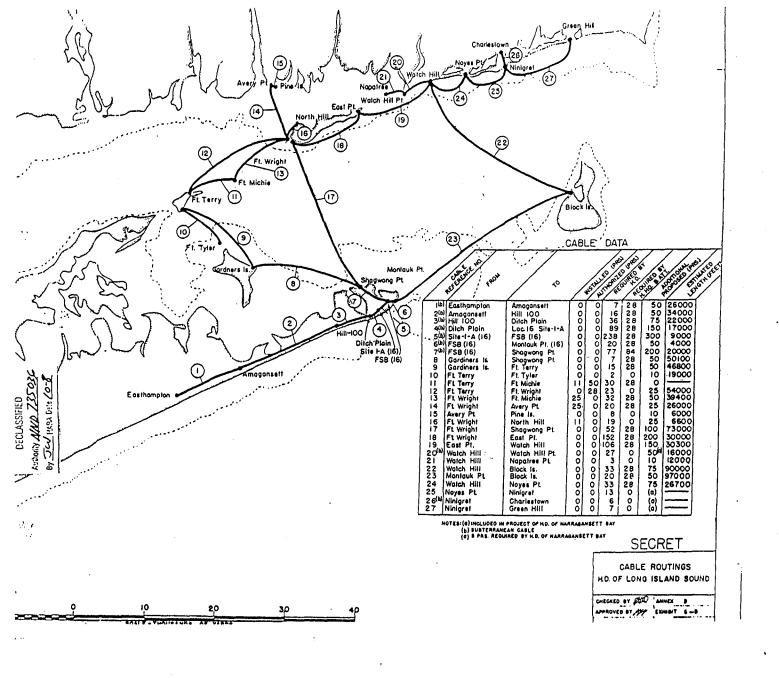
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Exhibit _ SB _ Pago _ 3 of _14 pages



•			
Form 14. Annex B	н. г	00 Too Io 1	<u> </u>
BATTERY FIRE CON	TROL REQUIREMEN	nts by Battery	
Name of Battery Co	nst. No	Tactical No.	
Type and Caliber Shielded	l, 6°	Element of Group	1
Location 16	Place	Montaul Pt., 1.I.	. Y.Y.
Classification:		. To be	Constructed.
Loca-: Site: Itam: Fire: Exhi-: tion : No.: No.: Cont: bit :	"comits agreet one	T.T. with T	lames Partied
No. : : 18ta.: :: 16	DATOS Y	# Tueciscations;	tion i # Athinit
184 18 1 1-1-4 1	•	AT-921 B4/184/1	•
16 , 1A , B2 82 1-I-6,	Cottage	LI-921 (B3/1286/12	"80t (3-E-5)
16 2C BS S5 1-1-7	Iower	DPF-100*R5/1085/10	75° - None (1-1-7)*
24A 10 B4 84 1-I-17	Membole .	AI-88*	4
1 1 1 1 h		.4	
27 2 A 36 85 1-I-22		AI-40: B4/1184/11	
60-2 ZA B6 86 1-1-28	Cottage	23 -107 810/2810/2	1000 (1-1-28)b
		, 1	2
HOTES: a-On site approved for b-On site to be acquir g-Location on Coast Or	red by H.D. of	Marragangett Bay.	روي دوزار _. . تاريخ _ا ير
# - In this column enter als			ta hulattane
		Tatto by comment	
	• • • • • •		
With the stations liste will be approximately as fell		SE LINE DATA for	this battery
Base Line :	1 1	<u> </u>	
From : Aximut		Azimuth and long were determined	
1 1		W616 40001 W4W44	
B1 51 B3 85 Z35°	7100	Map	
B2 82 B5 85 2950	4200	Map	•
B4 84 B5 B5 245 B6 36 DP7 Vertical band	6500	Jap	
1			±
		•	
1	1		•
•			
	4		
•		<u></u>	Pago 3 of 14 page
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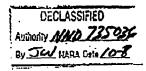
194-03-01 MED 10:23 WW CENCK-ED-DO



Cost Estimate and Priority Suide

FIRE CONTROL - ENGINEERS

Pri-: Item:	Description of Project : Me	terials	Labor :	Land 1	Total
	13A (Ditch Plain)				1
	B ² ₂ s ² ₂ (Const. #113)				/
	83 3 (const. #111) /2				
-	3 ² 2 (Const. #114) conc				
	BDOP #3				
	Land (1.5 Acres)	,	,	,500	\$6,500
	Cottage type, 3-sta. structure :	35,500/	\$5,500		
	Contingency Delco type light system	1,100 6,600 400	1,100 6,600 100		13,200 500
بقدره	·	<i>'</i>		,	•
	B1 S1 (Const. #112)				
	B ₃ S ₃ (Const. #216)				
_	64 ESG 711 /				
2	Land (Included with Site 1A)			None	None
2	Cottage type, 3-sta. structure Contingency	5,500 1,100 6,600	5,500 1,100 6,600		13,200
	monut /	13 600	\$13,300	16 5m	\$33 Joo
	TOTAL		\$15,500	\$0,500	
Location No	. 15 (Shagwong)				•
Site 1A	B ₃ ² s ₃ ² (Const. #216)				
	E ₁₀ (Const. #111)				
-	B ³ / ₂ S ₁₂ (Const. #114)				
. /	BDOP #L	•		2 500	,
2 /	Land (1.0 Acre) Cottage type, 3-sta. structure	5,500	5,500	2,500	2,500
- /	Contingency	1,100	1,100		
2 /	Deloo type light system	6,600 400	100		13,200 500
/	TOTAL	\$7,000	\$6,700	\$2, 50	0 \$16,200
Location No	o. 16 (Montauk Point)				
S1 to 10	G-1, BC-1, & BC-2				
3	Cottage type, 3-sta. structure Contingency	5,500 1,100 6,600	1,100	1	1 813,200
Note 1: La	ad to be purchased for Construs 13 and #216 (See Exhibit 3-A-1)	tion of	Batteries	Const.	# 112,
SE RE	E \	Exhit	it 8-3, 1	Page 2 o	of 12 pages



Form No. 19. Armex B

H. D. of Long Island Sound

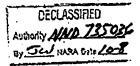
Cost Estimate and Priority Guide

FIRE CONTROL - ENGINEERS

rity: No. coation No	Description of Project : 13A (Ditch Plain)				
Site 1A	B ₂ S ₂ (Const. #113)		•		
	5 5 (const. \$111)				
	2 S2 (Const. #114) Sexu		•		
	BDOP #3				
2	Land (1.5 Acres)		9	6,500	86,500
3	Cottage type, 3-sta. structure Contingency	\$5,500 1,100 6,600	\$5,500 1,100 6,600		13,200
2 5	Delco type light system	400	100	٠.	500
Site In	B ₁ S ₁ (const. #112)				•
	B ₃ S ₃ (Const. #216)				
•	10 ESS 711				
2	Land (Included with Site LA)			None	None
2	Cottage type, 3-sta. structure Contingency	5,500 1,100 6,600	5,500 1,100 6,600		13,200
	TOTAL	\$13,600	\$13,300	\$6,500	\$33,400
ocation No	. 15 (Shagwong)				
site 14	82 83 (Const. #216)				•
	E10S10 (Const. #111)				
	BDOP #4	·			
2	Land (1.0 Acre)			2,500	2,500
5	Cottage type, 3-sta. structure	5,500	5,500		
. 1	Contingency	1,100	1,100		
2	Delco type light system	6,600 400	6,600 100		13,200 500
	TOTAL	\$7,000	\$6,700	\$2,500	\$16,200
ocation No	. 16 (Montauk Point)			~	
81 to 10	G-1, BC-1, & BC-2				
_	Cottage type, 3-stm. structure	5,500	5,500 1,100		
3	Contingency	6.600	6.600	Moto 7	\$13,200

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Exhibit 8-8, Page 2 of 12 pages



Form No. 19. Annex B

H. D. of Long Island found

Cost Estimate and Priority Guide

FIRE CONTROL - ENGINEERS

Pries Item	: Description of Project :	: Setorial:	lebor :	I and a	
	. 16 (Montank Point) (Cont'd.)	<u> </u>			
81 to 18	Tide Station No. 1.	•			
	Frame structure	§ 150	\$ 150	Note 1	\$ 300
Site 1	BC-3, BC-10#1, BBST #5, Wets Star #1, 4 Sig. Star #1	og fa ne	دو خارتررو	به شوی . مر	÷
8	Cottage type, 2-sta, structure Contingency	4,500 900 5,400	4,500 900 5,400	Note 1	10,800
Site 24	B ₁ S ₁ (Const. #112)				
3	Manhole type structure Contingency	5,100 700 5,000	5,100 700 5,000	Note 1	4,800
Si to 28	B ₂ S ₂ (Const. #113)				
3	Manhole type structure Contingency	5,400 700 5,000	5*7*00 7*00 5*000	Note 1	1,,800
	B ₃ S ₃ (Const. #216) B ₅ S ₅ (Const. #111)				
2	37mm OP 3-dook	6,000	6,000		
	Contingency	1,200 7,800	1,200	Note 1	71,400
	TOTAL	約4,150	\$24,150	None	\$1.8,300
Location %	. 17 (Whale Hill, Gardners Isla	=d)			
'Site 18	B ₅ S ₅ (Const. #217)	•			
	12 12 (Const. #11) Scirc				
	BDOP #6 & 37 mm OP				
5	Land (1.5 Acres)			6.550	6,550
\$	Cottage type, 2-sta. structure Contingency	5,500 1,100 6,600	5,500 1,100 6,600		13,200
2	Delco type light system	1400	100		500
Note 1: Lar	TOTAL	87,000	\$6,700	\$6,550	\$20,250
#1.7	3 and #216 (See Exhibit 3-A-1)				,,

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Exhibit 8-8, Page 3 of 12 pages

Cost Estimate and Priority Guide

FIRE CONTROL - ENGINEERS

Pri-: Item					
		aterials	Labor:	Land : 3	otal
	. 16 (Montauk Point) (Cont'd.) Tide Station No. 1.				
Site 1E		§ 150	8 150	Note 1	300
Sito M	BC-3, BG-166#1, BBOF #5, Net. Star #1, # Sig. Star #1	g to se	pint r	5/	
2	Cottage type, 2-sta. structure Contingency	11,500 900 5,400	4,500 909 5,460	Note 1	10,800
Site 2A	B ₁ ⁵ S ₁ ⁵ (Const. #112)				
.3	Manhole type structure Contingency	5,000 700 5,000/	5100 froo 5'000	Note 1	L,800
Site 2B	B ₂ ³ S ₂ ³ (Const. #113)				
3	Manhole type structure Contingency	2,000 <u>1,00</u> 2,400	2,000 400 2,400	Note 1	L,800 .
	B ₃ s ₃ (Const. #216) B ₅ s ₅ (Const. #111) B ₁₀ s ₁₂ (Const. #111)				
	37mm OP				
2	Steel tower, 3-deck Contingency	6,000 1,200 7,200	6,000 1,200 7,200	Note 1	1,4∞
	TOTAL	\$24,150	\$24,150	None	\$48,300
Location N	o. 17 (Whale Hill, Gardners Isla	nd)			
Site 1B	8 ¹ s ¹ (Const. #217) 8 ⁵ s ⁵ (Const. #114)				
	BDOP #6 & 37 num OP				
2	Land (1.5 Acres)			6,550	6,550
2	Cottage type, 2-sta. structure Contingency	5,500 1,100 6,600	1,100		13,200
2	Delco type light system	100			500
	TOTAL	\$7,000			\$20,250
	nd to be purchased for constructed and #216 (See Exhibit 3-A-1)				
SE RE	ħ.	Exhib	it 8-8, P	age 3 of	12 pages

Form 320. AND BX 3

E. D. of L.I.s.

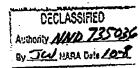
Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL med ORDHINCE

Arranged by Battery

. T		Signal		/
ity:Item:Sir no.: K		Equipment: 1	,	ta1
Battan				
	1 (Const. 112) 2-16" Guns, Lor	ntauk Point,	Lon tork.	
3 1-	Cuns (Location 16, Fontauk Pt.)			
	Signal	,	/	
	6 Tel. Box, EE-91	240.00		
	8 H & C Set, HS-17A	200.00		
	2 Bell, T.I. 18C-153	22,00		
	8 Boxes , leatherproof , RE-63	160/00		
	Contingency	1,26.00	100.00	842.00
1-0	BCP (Location 16, Liontauk Pt.))/		
	Signal /	7		
	€ Tel. Box EE-91	190.00		
	5 H & C Set.ES-174 /	180.00 125.00		
	1 Hand Set, TS-12A	12.00		
	1 8/B, BD-105			
	1 Bell, T.I.	230.00		
	1 Tel. Wall	20.00		
	Contingency /	120.00	100.00	
	<i>, , ,</i>	120000	100.00	79€ -00
	Ordnance			
	1 Ar. Inst. H-1910-A1 1125.00	0		
	& Recorders, T.I. 110.00	0		1235.00
1-1	Plotting Room (Location 16, 1k			
	Live Cheation 16, 18	ntauk Pt.)		
	Signal /			
	16 Tel. Box,EE-91	480.00		
	14 H & C Set HS-17A	350.00		
	2 Hand Set, IS-12A	24.00		
	1 Bell, T.I., MC-153	11.00		
	1 S/B BD-95	300.00		
	1 Badio SCR 281	500.00		
	1 Tol. Wall	20.00		
	Contingency	340.00	340.00	2365.00
	Ordnance			
	1 Director,SC			
	16* Guns 75000.00			
	1 Bd Adj.,Fire			
	11-1 250.00			
	1 Bd.Range Corr.			
	K-1 900.00			
	1 Bd Df1, u-1 1800.00			
	1 Bd Plot N 7 6000.00			
	1 Bd.Spot.N-3 1950.00			
Λ	1 Corr.Perc.H-1 125.00			
A	4 Recorders T.I. 110.00			
- 1	1 Rule, Set Forward 15.00 1 Scale Pred. 19.00			
1	1 Scale Pred. 19.00 1 Indicator, WindComp125.00			
1				86294.00
1				
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Form \$20. Armex 1

D. of L'I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERT

71- : eitar:71	tem:Site:		:Ordnance:	Signe		
	Mos Moss		.w.m.m.e4;	Equipment:	repor ;	Total
						
	Batter	y #4 (Canst. #113) 2-	15" Guns, 16	mtaufe Pt., W.	T. (Contid))
_						•
5 .	2~3	B5-53 (Location 16,	Montank Pt.,	, R.Y.)		
		Signal				
•	·	3 Tel. Box E2-91		90+00		
		S H.& C Set BS-17A		75.00	•	
		1 Bell 7-1.		11.00	3.	
		Contingency		85.00	25.00	245.00
	•			77104	00000	286,00
		Ordnance				
		1 D.P.F.	4500.00	•		
		1 As.Inst. 16-1910-A	1 1125.00			5625,00
						4000
8	2~B	B-4 8-4 (Location 6	0-2,Black Is	.,R.J.)		
		Signal				
		S Tel Box RE-91	*	90,00		
		3 H & C Set, ES-17A	t.	75,00		
		1 Bell T.I.	***	11,00		
		Contingency		85.00	25.00	236.00
		Ordnance				•
		2 Az . Inst M1910-Al	2250,00			10000 00
		4 100 1200 1200 2000	******			2250.00
\$	3-C.	B-5 S-6 (Location 60	-5.Block Is.	R.T.)		,
				,,		
		Sigual "				
		I Tel.Well		20-00		
		s Tel.her, KE-Vl	ب	90.00		
		3 H & C Set, HS-17A		75.00	•	
		1 Bell. T.I.	i.	11.00		
		Contingency		40.00	40.00	276,00
		Ordnance	4 4-			
		2 As.Inst,31910-A1	2250.00			2250,00
	4-1	B-6 S-6				•
		Signal				
		8 Tel Box, 28-91		90,00		
		8 H & C Set. HS-17A		75.00		
		1 Bell. T.T.		11.00	•	
		Contingency		35.00	25.00	236.00
		Ordnone			20200	~~ 4VV
		1 D.P.F.	4500,00			
		1 As.Inst.10910-AZ	2125.00			5625.00
				TOTAL BATT	- L TT	
				WING BALT	7 4	113290.00

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Form 120. AMERIC B

H. D. of L.I.S.

Cost Estimate and Priority Guide

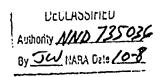
FIRE CONTROL - SIGNAL HAR ORDELINCE

Armanged by Battery

r{• :	:	, ;	Signal		
ity.Ite	m:Sito	: Description of :Ordnance:	quirment:	abor : To	tal
\$ 5 0.	. <u></u> 0.	Project v :	<u> </u>		
to a		"t /o 1117\ 0.20F # 10-			
100	ccary ;	71 (Const. 112) 2-16" Cune, 1702	taul Point	Row York,	
3	l-A	Owns (Location 18, Contack Pt.)			
		•			
		Signal			
		6 Tel. Box, EB-91	240,00		
		8 R & C Set, IIS-17A	200.00		
		2 Bell, T.I. MC-153	22,00		
		8 Boxes, cutherproof, FE-63	160.00		
		Coutingency	120.00	100.00	842,00
3	1-C	BCP (Louation 16, Montauk Pt.)			
		04-43	•		,
		Signal 6 Tel. Box EE-91	180.00		
		5 H & C Set, RS-17A	180.00 125.00		
		1 Mand Set, 78-12A	12.00		
		1 s/s, BD-108	230.00		
		l Bell, T.I.	11.00		
		1 Tel. Wall	20,00		
		Contingency	120.00	100.00	798.00
			100440	200300	190 800
		Ordnome			
		1 As. Inst. N-1910-Al 1126.00			
		4 Recorders, T.I. 110,00	1		1235.00
3	1-R	Plotting Room (Location 16, 180	ntauk Ph. l		
		•	,		*
		Signal			
		16 Tel. Box.EE-91	480.00		
		14 H & C Set, HS-17A	350.00		
		2 Hand Set, TS-12A	54,00		
		1 Bell, T.I., EC-153	11,00		•
		1 S/B 3D-95	\$00.00		
		1 Andio SCR 281	\$00+00	•	•
		1 Tol. Wall	20.00		
		Contingency .	340,00	\$40. 00	\$268*00
		Ordnance			
		1 Mrector,SC			
,'		26" (Juna 75000-00			
		1 Bd.Adj.,Fire			
		11-1 250.00			
		1 Bd. Range Corr.			
		X-1 900-00			
		1 Bd. MT. 14-1 1800.00 .			
		1 Bd Plot 22-8 6000.00			
		1 Bd.Spot_M-3 1900.60			
		1 Corr.Pero.H-1 125.00			
		4 Recorders T.I. 110:00			
		1 Rule, Set Forward 15,00	;		
		1 Soule.Prod. 19.00			
		1 Tallanian Weiten Can as			
					86294.00

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Exhibit 9B , Page 14 of 41 pages



Form 120. Annex B

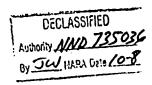
H. D. of L.I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

न- :	1 1			Signs	d i		
ity:It	tem:Site:	Description of :Or	dnance:	Equip- :	Labor :	Total	
: 1	No.: No.:	Project :		ment :	<u>:</u>		
Ī	Battery ;	l (Const. #112) 2-16!	Guns, Ho	ntauk Pt.,	N.Y. (Cont	<u>d)</u>	
3	1-A	B-1 S-1 (Location 10	, Eastham;	ton, N.Y.)			
		Signal					
		1 Tel. Wall		20.00			-
		3 Tel. Box EE-91		90.00			
		3 H & C Set, HS-17/		75.00	•		
		1 Bell T.I. MC-153	•	11.00			
		Contingency		40.00	40.00	276.00	
		• •					
		Ordnance					
		1 D.P.F.	4500.00				*
		1 Az. Instrument -	•				5
		M-1910-A1	1125.00			5625.00	
3	1-A	B-2 S-2 (Location 1)	Amagans	ett, N.Y.)			
		Signal					
		3 Tel. Box EE-91		90 •00			
							/
		3 H & C Set, HS-17	7	75.00			
		1 Bell, T.I.		11.00			0 1
		Contingency		35,00	25,00	236,00	CC ,
		Ordnance			ř		un ofer
		2 Az . Instrument					Us () 1 Ca
		M-1910-A1	2250.00			2250.00	aco,
						3300 400	VIII
3	1-A	B-3 S-3 (location 1	SA, Hill	100.Montauk	Pt. N.Y.)		10/8
	•			•	•		1. /-
		Signal		1			(0/8-
		3 Tel Box, EE-91		90.00			("
		3 H & C Set. HS-17.		75.00		•	
		1 Bell, T.I. MC-15:	3	11.00			
		Contingency		35.00	25.00	236,00	
		Ordnance					
		2 Az. Instruments					
			2250 00			2250 00	
•		M-1910-A1	2250.00			2250,00	



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Form #20. Annex B

H. D. of __L.I.S.

Cost Estimate and Priority Guide

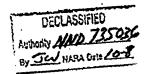
FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

	Arranged by M	TITERI		/	
	····		· At-		
rie ; ; ;	D		Sign		Total
rity:Item:Site:			forfamenc t		TOPET
1 No.1 No.1	Project :			/	
Battory	#1 (Const. #112) 2-16*	Guma, Monte	uk Pt., N	f. (Contid	1)
3 . 1- 3	B-4 S-4 (Location 13-A	, Ditch Pla	in, Monta	k Pt.,N.	r.)
	Signal				
	S Tel. Box EE-91		90.00		
	3 H & C Set, HS-17A		75.00		
	1 Bell, T.I. MC-153	,	11.00		•
	Contingency	/	35.00	25,00	236.00
	01				
	Ordnance 2 Az. Inst.M-1910-Al	2250/00			2250.00
	Z AL. IIISCAN-1310-AI	229.00			2200000
2-A	B-5 S-5 (Location 16,	Montauk Pt.	.,N.Y.)		
	Signal	/			
	5 Tel.Box, EE-91		90.00		
	1 Tol.Wall		20.00		
	3 H & C Set, HS-17A		75,00		
	1 Bell T.I., MC-163		11.00		
	Contingency		35.00	25.00	256.00
	Ordnance				
		2250.00		_	2250,00
	/ -		TOTAL BAT	mppy 43 \$	107399.00
					10,000
Battery	No.2(Const.No.115) 2-1	.6" Guns, M	ontauk Pt.	New York	<u>.</u>
3 1-D	Guns (Location 16 Mont	auk Pt. N.	Y.)		
	J	,			
	Sign#1				
	8 fel Box, FE-91		240.00		•
	8/H & C Set, HS-17A		.200.00		
2	& Bell T.I MO-153		22.00		
	8 Boxes, Weatherproof				
,	/ BE-63		160.00		
/	Contingency		120.00	100.00	842.00
3 1-6	BCP (Location 16, Monts	uk Pt.,N.Y	•)		
/	Signal				
/	6 Tel.Box,EE-91		180.00		
/	5 H & CSet, HS-17A		125.00		
/	1 Hand Set, TS-12A		12.00		
/	1 S/B BD-105		230.00		
/	1 Bell, T.I.		11.00		
/	l Tel, Wall		20.00		
/	Contingency			100.00	798.00
/	Ordnance				
/	1 Az.Inst.M-1910-Al	1125.00			
1	4 Recorders, T.I.	110,00			1235.00
/					
/	•				
/					
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		E-Th	ns+ un. I	Mara 16	AP 41

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Exhibit 9B , Page 16 of 41 pages.



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R. D. of L.I.S.

Cost Retimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDEANCE

Arranged by BATTERY

1-1	2 3		Sign	1	
itvil	tem:Site:	Description of : Ordnance :	Equipment :		Total
	Boss Woss	Project : :			10 0444
				 .	
	Battery	#1 (Const. #112) 2-16 Ouns, Mor	tank Pt. N.	T. (Cont'	1)
_		B & S & Pained on 38 & White			- \
\$	1-1	B-4 S-4 (Location 15-A, Ditch I	lain, Monte	ir Pt., H.	Σ.,)
		Signal			
		3 Tel. Box EE-91	90,00	•	
		3 H & C Set, ES-17A	75,00		
	* *	1 Bell, T.Y. MC-158	11.00		•
		Contingency	85.00	25.00	235.00
		Ordonnos ·			
-		2 Az. Inst.W-1910-Al 2250.00			2254 44
		e we the contratorit vonco.			2250.00
3	2-A	B-5 S-5 (Location 16, Montank I	?t.,n.Y.)		
		Signal			
		S Tel.Box, SE-91	90.00		
		1 Tol.Wall .	20,00		
		3 H & C Set_HS-17A	75.00		
		1 Bell f.J.,MC-155	11.00		
		Contingency	35,00	25.00	258,00
		conterrif area?	00,000	20400	2000
		Ordnance			•
		Ordnance 2 Ax.Inst.H-1910-Al 2250.00			2250-00
			· ማውታልፒ. ህልመ	mene da \$	
	. •		TOTAL BAT	tery #1 [‡]	2250,00
	Raidaye	2 Ax . Inst. M-1910-Al 2250.00	-	-	107393,00
	Battery		-	-	107393,00
8		2 Ax . Inst. M-1910-Al 2250.00	Montank Pt.	-	107393,00
3		2 Ax. Tust. N-1910-Al 2250.00 No.2(Const. No.113) 2-18" Guns. Ouns (Leantion 16 Montauk Pt.,)	Montank Pt.	-	107393,00
8		2 Ax. Tust. N-1910-Al 2250.00 No.2(Const. No.113) 2-18" Game, Game (Leantion 16 Montauk Pt., 1 Signal	Kontank Pt.	How York	107393,00
8		2 Ax. Inst. N-1910-Al 2250.00 No.2(Const. No.113), 2-18" Game, Cans (Leantion 16 Montank Pt., 1 Signal 8 7el Nox, 25-91	Kontank Pt.	How York	107393,00
8		2 Ax. Thet. H-1910-Al 2250.00 No.2(Const. No.113) 2-18" Gans, Owns (Leantion 16 Montauk Pt.,) Signal 8 Fol Box, 25-91 5 H & C Set, H5-17A	Kontank Pt. 8.Y.) 240.00 200.00	How York	107393,00
3		2 Ax. The t. W-1910-Al 2250.00 Bo.2(Const. Wo.113) 2-18" Guns. Guns (Leantion 16 Montauk Pt.,) Signal 8 Fol Box, 25-91 5 H & C Set, MS-17A 2 Bell T.J. WS-153	Kontank Pt.	How York	107393,00
3		2 Ax. The t.H-1910-Al 2250.00 Bo.2(Const.Ho.113) 2-18" Guns, Guns (Leantion 16 Montauk Pt.,) Signal 8 Tol Box, 28-91 5 H & C Set, HS-17A 2 Bell T.I. Mol38 6 Boxes, Weatherproof	Montank Pt. 8.Y.) 240.00 200.00 22.00	How York	107393,00
8		2 Ax. Thet. H-1910-Al 2250.00 No.2(Const. No.113), 2-18" Guns, Guns (Leantion 16 Montauk Pt., 1 Signal 8 Tel Box, 23-91 5 H & C Set, H8-17A 2 Bell T.I. NO.135 8 Boxes, Newtherproof HR-63	240.00 200.00 200.00 160.00	, Hew York	107773-00
8		2 Ax. The t.H-1910-Al 2250.00 Bo.2(Const.Ho.113) 2-18" Guns, Guns (Leantion 16 Montauk Pt.,) Signal 8 Tol Box, 28-91 5 H & C Set, HS-17A 2 Bell T.I. Mol38 6 Boxes, Weatherproof	Montank Pt. 8.Y.) 240.00 200.00 22.00	, Hew York	107773-00
3	1-0	2 Ax. Thet. H-1910-Al 2250.00 No.2(Const. No.113), 2-18" Guns, Guns (Leantion 16 Montauk Pt., 1 Signal 8 Tel Box, 23-91 5 H & C Set, H8-17A 2 Bell T.I. NO.135 8 Boxes, Newtherproof HR-63	240.00 200.00 200.00 22.00 160.00 120.00	, Hew York	107773-00
s	1-0	2 Ax. The t. H-1910-Al 2250.00 Bo.2(Const. Ho.113) 2-18" Guns, Guns (Lacation 16 Montauk Pt.,) Signal 8 Fol Box, 28-91 5 H & C Set, 28-17A 2 Bell T.I. MS-183 8 Bores, Weatherproof ER-63 Contingency	240.00 200.00 22.00 160.00 120.00	, Hew York	107773-00
s	1-0	2 Ax. The t. H-1910-Al 2250.00 Bo.2(Const. Ho.113), 2-18" Guns, Guns (Lacation 16 Montauk Pt., 1 Signal 8 Fel Box, 23-91 8 H & C Set, H8-17A 2 Bell T.I. Montauk BB-63 Continguncy BCF (Location 16, Montauk Pt., N	240.00 200.00 200.00 22.00 160.00 120.00	, Hew York	107773-00
8	1-0	2 Ax. The t. W-1910-Al 2250.00 Bo.2(Const. Wo.113) 2-18" Gons, Gons (Leantion 16 Montauk Pt.,) Signal 8 Fol Box, 28-91 5 H & C Set, 28-17A 2 Bell T.I. W-185 8 Bores, Weatherproof ES-63 Continguncy BCF (Location 16, Montauk Pt., N Signal 6 Tel. Box, ES-91	240.00 200.00 22.00 160.00 120.00	, Hew York	107773-00
\$ 5 .	1-0	2 Ax. Inst. W-1910-Al 2250.00 Bo.2(Const. Wo.113), 2-16" Game, Cane (Leantion 16 Montauk Pt., 1 Signal 8 Fel Box, 25-61 5 H & C Set, 25-17A 2 Bell 7.1, 35-63 Contingency BCP (Location 16, Montauk Pt., N Signal 6 Tel. Box, E5-91 5 H & CSet, E5-17A	260.00 200.00 22.00 160.00 120.00	, Hew York	107773-00
3 .	1-0	2 Ax. The t. H-1910-Al 2250.00 No.2(Const. Ho.113) 2-18" Game, Game (Leantion 16 Montauk Pt., 1 Signal 8 Fol Box, 23-91 5 H & C Set, HS-17A 2 Boll T.I. MS-153 8 Boxes, Weatherproof E3-65 Contingency BCF (Location 16, Montauk Pt., N Signal 6 Tol. Box, E3-81 5 H & C3-t. E3-17A 1 Band Set, E3-17A	240.00 200.00 22.00 160.00 120.00 .Y.)	, Hew York	107773-00
\$ \$.	1-0	2 Ax. The t. H-1910-Al 2250.00 No.2(Const. No.113) 2-18" Gans, Owns (Leantion 16 Montauk Pt.,) Signal 8 Fol Box, 25-91 5 H & C Set, H5-17A 2 Bell T.I. NG-185 6 Boxes, Nowther proof 183-63 Contingency BCF (Location 16, Montauk Pt., N Signal 6 Tol. Box, E5-91 5 H & C Set, E5-17A 1 Band Set, E5-17A 1 S/B ED-105	200.00 200.00 22.00 180.00 120.00 .T.)	, Hew York	107773-00
ই .	1-0	2 Ax. The t. H-1910-Al 2250.00 Bo.2(Const. Ho.113) 2-18" Gons, Gome (Leantion 16 Montauk Pt.,) Signal 8 Fol Box, 29-91 8 H & C Set, HS-17A 2 Bell T.I. MG-185 8 Bores, Westherproof HS-63 Contingency BCP (Location 16, Montauk Pt., H Signal 6 Tel. Box, E9-91 5 I & CSet, HS-17A 1 Hand Set, IS-17A 1 S/R ED-105 1 Sell, T.I.	200.00 200.00 22.00 160.00 120.00 125.00 125.00 120.00	, Hew York	107773-00
\$ \$	1-0	2 Ax. Inst. W-1910-Al 2250.00 Bo.2(Const. Wo.113), 2-18" Guns, Guns (Leantion 16 Montauk Pt., 1 Signal 8 Fel Box, 23-61 5 H & C Set, HS-17A 2 Bell T.1. WS-133 6 Bores, Weatherproof HS-63 Continguncy BCF (Location 16, Montauk Pt., N Signal 6 Tel. Box, E3-21 5 Z & CSet, E3-17A 1 Hand Set, TS-72A 1 5/8 ED-105 1 Bell T.I. 1 Tel, Wall	260.00 200.00 22.00 160.00 120.00 125.00 125.00 12.00 250.00	New York	842.00
ន ទ .	1-0	2 Ax. The t. W-1910-Al 2250.00 No.2(Const. Wo.113) 2-18" Guns, Ouns (Leantion 16 Montauk Pt.,) Signal 8 Fel Nox, 23-91 8 H & C Set, HS-17A 2 Bell T.I. MS-153 8 Bore, Weatherproof HS-63 Continguncy BCP (Location 16, Montauk Pt., N Signal 6 Tel. Box, ES-91 5 M & CSet, HS-17A 1 Hand Set, 15-12A 1 5/8 ED-105 1 bell, T.I. 1 Tel, Wall Contingency	260.00 200.00 22.00 160.00 120.00 125.00 125.00 12.00 250.00	, Hew York	107773-00
\$ 5 .	1-0	2 Ax. The t. H-1910-Al 2250.00 No.2(Const. No.113) 2-18" Gons, Owns (Leantion 16 Montauk Pt.,) Signal 8 Fol Box, 23-91 5 H & C Set, HS-17A 2 Bell T.I. MG-185 6 Boxes, Newtherproof RS-63 Contingency BCF (Location 16, Montauk Pt., N Signal 6 Tol. Box, E3-91 5 H & CSet, E3-17A 1 Band Set, I3-12A 1 S/B ED-105 1 Bell, T.I. 1 Tel, Nall Contingency Ordnance	200.00 200.00 22.00 180.00 120.00 135.00 12.00 280.00 11.00 20.00	New York	842.00
\$ 5 .	1-0	2 Ax. The t. W-1910-Al 2250.00 No.2(Const. Wo.113) 2-18" Guns, Ouns (Leantion 16 Montauk Pt.,) Signal 8 Fel Nox, 23-91 8 H & C Set, HS-17A 2 Bell T.I. MS-153 8 Bore, Weatherproof HS-63 Continguncy BCP (Location 16, Montauk Pt., N Signal 6 Tel. Box, ES-91 5 M & CSet, HS-17A 1 Hand Set, 15-12A 1 5/8 ED-105 1 bell, T.I. 1 Tel, Wall Contingency	200.00 200.00 22.00 160.00 120.00 120.00 125.00 125.00 120.00 120.00	New York	842.00

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whilit 98 Page 16 of 41 pages.

Form #20. Annex B

Cost Estimate and Priority Guide

FIRE CONTROL = SIGNAL and ORDNANCE

Arranged by BATTERY

Pri-:	1 1			Signa		_;	
ority:Ite		• .	Ordnance:		Labor	-;	Total
: No	.: No.:	Project				<u>:</u>	
	Batter	y #2 (Const. #113) 2-1	6" Gams. No	ntauk Pt. N.	Y. (Cont	ea)	
	منتتت	, <u> </u>			/~~		
3	2~B	B3-S3 (Location 16, 1	Iontauk Pt.,	N.Y.)			
		04 1	• •				
		Signal 3 Tel. Box EE-91		90.00			
		3 H & C Sot, HS-17A		75.00			
		1 Bell T.I.		11.00			
		Contingency		35.00	25.0	^	27.6 00
	•			00.00	20.0	~	236.00
		Ordnance					
		1 D.P.F.	4500.00				
		1 Az.Inst. 14-1910-A	1 1125.00				5625,00
3	2-B	B-4 S-4 (Location 6	0-2,Black I	R.I.)			
		Signal					
		3 Tel Box EE-91		90.00			
		3 H & C Set, HS-17A		75.00			*
		1 Bell T.I. Contingency		11.00 35.00		20	226 00
		contingency		55.00	ده	00	236.00
		Ordnance					
		2 Ar.Inst.M1910-A1	2250,00				2250,00
3	5-C	B-5 S-5 (Location 60	-3,Block Is	.,R.I.)			
		Signal					
		l Tel.Wall		20.00	ļ		
		3 Tel.Box,EE-91		90.00	•		
		3 H & C Set, HS-17A		75.00	1	•	
		1 Bell. T.I.		11.00)		
		Contingency		40.00	40.	00	275.00
		Ordnance					
		2 Az.Inst,M1910-Al	2250.00				2250.00
3	4-A	B-6 S-6 "					
		Signal "					
		5 Tel Box, EE-91		90.00	1		
		3 H & C Set, HS-17A		75.00			
		1 Bell. T.I		11.00			
		Contingency		35.0		•00	236.00
		Ordnance		2010			
)		1 D.P.F. "	4500.00				
		1 Az.Inst.M1910-Al	1125.00				5625.00
				TOTAL BA	TTERY # :	2 –	113280.00

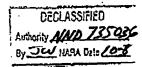
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Exhibit 9B Page 18 of 41 pages

FIRE CONTROL - SIGNAL and ORDHANCE

Arranged by BATTERY

				Signal		-/
	:Site:	Description of Project	:Ordnance:	Equipment:	Labor :	Total
: 101					- /- /	
	Batte	7 \$2 (Const. \$115)	2-16 Guns, E	ontauk Pt., N	.Y.(ContrD)	
3	1-E	Plotting Room (Loc	ation 16 Momta	uk Pt.)		
		Signal				
		16 Tel. Box EE-91		480.00 /		
		14 H & C Set, HS-	17A	350.00		
		2 Hand Set, TS-12	A.	24.00		
		1 Bell T.I. MC-1	.53	11,00		
		1 S/B,BD95		396.00		
		l Radio SCR 281		<i>5</i> 00.00		
		l Tel. Wall		/ 20.00		
		Contingency	,	340.00	340.00	2365.00
		Ordnance	/			
		1 Director.SC				
		16" Cune	75000.00			
		1 BD.Adj.Fire,U-1				
		1 Bd.Defl.M-1	1600.00			
		1 Bd.Range Corr.				
		1 Bd.Plot. N-3	6000.00			
		1 Bd.Spot. H-3	1950.00			
		1 Corr.Perc.N-1	125.00			
		1 Rule, Set, Forya				
		4 Recorders, L.I.				
		1 Scale Bred.	19.00			
		1 Indicator, Wind		·		86294.00
3	1-B	B-1 S-1 (Location		Montauk Pt.	W.T.)	
3	1-0	5-1 0-1 /00000101	10, 2222 100,	,	,	
		Signal/				
		l Telemall		20.00		
		3 Tel. Box,EE-91		90.00		
		3 ft & C Set, HS17	'A	75.00	•	
		1/Bell,T.I.		11.00		
		Contingency		40.00	40.00	276.00
		Ordnance				
		2 Az. Instrument	Ŀ			• .
	- 7	H-1910-A1	2250.00			2250.00
3	1-A	B-2 S-2 (Location	13A,Ditch Pla	in, N.Y.)		
	/	Signal				
	/	5 Tel.BoxEE091		90.00		
/	'	3 H & C Set HSl	74	/5.00		
/		1 Bell T.I.		11.00		
j		Contingency		35.00	25.00	236.00
/		Ordnance		22,000		
I		1 AZ.Inst.W1910	-Al 2250.00	,		2250.00
Α						
$t / \rangle =$	A					
A PA	Λ		Exhib	it 9B Page 1	7 of 41	pages.
100	71	.		_ · <u>_ · · ·</u> · · · · · · · · · · · · · · · ·		



Form #20. Annex E

D. of L.I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

) -1-				Signal		· · · · · · · · · · · · · · · · · · ·
DESTY: L		Description of	:Ordnance:	Equipment :	Labor :	Total
	Bo.: No.:		I 1			
					· · · · · · · · · · · · · · · · · · ·	
	Batter	y #2 (Const. \$113)	2-16" Guzza,	Montauk Pt.	N.Y. (Cont'D	<u>)</u>
3	1-E	Plotting Room (Local	tion 16 Mount	Ruk Pt.)		
	•	8ignal				
		16 Tel. Box RE-91		480.00		
	•	14 H & C Set. HS-1	7A	350.00		
		2 Hand Set, 76-12/	\	24.00		
		1 Bell T.I. MC-18	ČX.	11.00		
		1 5/8,8095	~	200*00		
		l Radio SCR 281		500.00		
		. 1 Tol. Wall		\$0.00		
		Contingency		840,00	840.00	2365.00
		Ordnance .			*,	
		l Director,SC				3
		16" Gunz	75000.00			
		1 BD.Adj.Pire,M-1	250,00			
		1 Bd.Defl.M-1	1800-00			
		1 Bd Range Corr .N-				
		l Bd.Plot. N-3	6000.00	•		
		I Bd.Spot. W-3	1950.00			
		1 Corr.Pero.M-1	125.00			
		l Rule, Set, Forward				
		4 Recorders, T.I.	110.00	,	•	
		1 Scale Bred.	19.00			
		1 Indicator, Wind.	728 CO			86294.00
2	1-8	B-1 S-1 (Location)	18, H111 100,	Montauk Pt.,	H.T.).	
		Signal				
		1 Telewall	•	20,00		
		3 Tel. Box,EE-91		90,00		
		8 H & C Set, ES17A		75.00		
			·,			
		1 Bell. T.I. Contingency		11,40 40,00	40.00	275,00
		l Bell.T.I. Contingency	· · · · ·	11,00	40.00	275,0
		l Bell.T.I. Contingency		11,00	40.00	275 , 00
	•	l Bell.T.I. Contingency	2250,00	11,00	40.00	
8	1-A 1	1 Bell, T.I. Contingency Ordnance 2 As. Instrument		11,60 40,00	40,00	
, 8	1-A 1	1 Bell, T.I. Contingency Ordnance 2 As. Instrument B-1910-Al 3-2 S-2 (Location 1)		11,60 40,00	40.00	
, 8	1-A 1	1 Bell, T.J. Contingency Ordnance 2 As. Instrument B-1910-41 3-2 S-2 (Location 1) Signal		11.00 40.00 =,H.T.)	40.00	
, 8	1-A 1	1 Bell, T.I. Contingency Ordnence 2 As. Instrument H-1910-41 3-2 S-2 (Location 1: Signal 5 Tel. Books091		11,00 40,00 =,H.T.)	40.00	
, 8	1-4 1	1 Bell, T.I. Contingency Ordnance 2 As. Instrument H-1910-Al 3-2 S-2 (Location 1: Signal 5 Tel. BOXEB091 5 R & C Set EX17A		11.00 40.00 =,H.T.) 90.00 75.00	40,00	
8	1-4 1	l Bell, T.I. Contingency Ordnance 2 As. Instrument B-1910-Al 3-2 S-2 (Location 1: Signal 5 Tel. BOLEBO91 3 R & C Set EX17A 1 Bell T.I.		11.00 40.00 =,H.T.) 90.00 75.00 11.00		
, 8	1-4 1	1 Bell, T.I. Contingency Ordnance 2 As. Instrument H-1910-A1 3-2 S-2 (Location 1: Signal 5 Tel. BoxEB091 5 R & C Set ES17A 1 Bell T.I. Contingency		11.00 40.00 =,H.T.) 90.00 75.00	40.00 25.00	
8	1-A 1	l Bell, T.I. Contingency Ordnance 2 As. Instrument B-1910-Al 3-2 S-2 (Location 1: Signal 5 Tel. BOLEBO91 3 R & C Set EX17A 1 Bell T.I.	ia,Ditch Flai	11.00 40.00 =,H.T.) 90.00 75.00 11.00		2750.00 2250.00 236.00

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chibit 98 Page 17 of 41 pages.

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Form #20 Annex B

He De of _ L.I.S.

Cost Estimate and Priority Quide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

P-1-	2 8		: :	816	na.	
	:Item:Site:	r Description of Project	tOrdnance:	Equip-	t Labor r	Total
	Batel	tery #3 (Const #216)	2-6" (Soma . V	lontanic Pt	W.Y.	
2 .	. 1-0	Omns (Location 18, M	ontouk Pt., N	·X.		
		Signal .				
		8 Tel. BoxEs-91	·	240.00		
		8 H & C Set. HS-LAA		200,00		
		2 Bell T.I.	_	22.00		
		8 Boxes, Weatherproof	x	300.00		
		BE-65 Contingency		160,00 120,00		842.00
•		. oursmous		150 800	200,000	D±2.€(V,
2.	1-7	BCP (Location 16, No.	ntank Pt., N.	Y.)		,
		Signel				:
		6 Tel Box E3-91		180.00		
		8 H & 6 Set, H3-17A		125-00		
		1 Mand Set TS-12A		12-00		
		1 8/3 80-106	•	280,00		
		l Bell. T.I. l Tel. Wall		11.00		
		Contingency		110,00		788.00
				120000		100400
		Ordnese l As Inst-Millo-Al	1125.∞			
		4 Recorders, T.I.	110.00			1235.00
2	1-G	Platting Room (Locat	ion 16 Bonts	mk Pt.,N.Y.	,	
		Signal	,	•		
		13 Tel Box,28-91		390.00		
		11 I a C Set, MS-17A	,	275-00		
		2 Hand Set, IS-12A	1	24.00		
		1 Bell T.T.		11.00		
		1 A/B BD-95		300.00	1	_
		1 Tel Wall		20.00		`.
		Contingency		200.00	140.00	1360.00
		Ordnance				•
		1 Director,SC,	•			
		6" Guns	25000,00			
		l Bindijariro, M-l	250,00			•
		1 Bd.Range Corr.N-1				
		1 Bd.Derl. H-1	1800,00			
		1 Bd.Plot, M-5	9000-00			
		1 Bd.Spot. X-3	1950-00	•		
		1 Corr. Perc. 14-1	128,00		•	
		4 Recorders, T.I.	110.00			
		1 Rule Set Forward	15.00			
		1 Scale Fred. 1 Indicator, Wind, Co	19-00 .			
						36294,00

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Exhibit 9B Page 19 of 41 pages.

H. D. of L.I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

ri-: :	-:		:	:	S	gna	X /	:	
rity:Item:Si	to	Description of	:Ordnance	:_	Equip-	:	Labor	. Tota	1
: No.: N	10 .:	Project	<u> </u>	:	ment	1	/	:	
я	i. In t.t.	ery #3 (Const#216)	2-6" Cuns.	Mo	ntauk Pt	N .	*		
=		0.3 10 (00.2.00,220)	<u> </u>			/	<u> </u>		
1-	-G	Guns (Location 16, 1	ontauk Pt.	,N.	Ţ.				
		Signal .				•			
		8 Tel. BoxXE-91	-		240				
		8 H & C Set. TIS-17A	L		200.				
		2 Bell T.I.			/ 22.	00			
		8 Boxes, Weatherproo	1		1 200	<u>~</u> .			
		BE-63			160. 120.		100 C	`	842.0
		Contingency		1	120.	ω.	100.00	,	042.0
. 1-	-F	BCP (Location 16, 16	ntauk Pt.	ń.	r.)				
		Signal	/						
		6 Tel Box EZ-91	/		180.	.00			
		5 H & C Sot, HS-17A			125.				
		1 Hand Set TS-12A			12,	.00			
		1 s/B BD-105	/		230.	.00			
		l Bell. T.I.	1		11.	.00			
		1 Tel. Wall	/		20.			_	
		Contingency	/		110.	•00	100.0	0	758 •C
		Ordnance							
		1 Az Inst. 11910-Al							
		4 Recorders, T.I.	110.00						1235.0
1	-G	Platting Room (Loca	tion 16 Ko	nto	uk Pt.,N	.¥.)		· ·	
		Signal				•			
		13 Tol Box, EE-91			390	•00			
		11 1 & C Set, ES-17	A		275	.00			
		2 Hand Set, TS-12A			24	.00			
		1 Bell T.I.			11	•00			
		1 S/B BD-95			300				
		l Tel Well				•00			- 0 / 0
		Contingency			200	•00	140.0	00	1360.
		Ordnance		* _T					
		l Director,SC, 6" Guns	25000 00						
		l Bd.Adj.Fire,E-1	25000 •00 250 •00				•		
		1 Bd.Range Corr.E-							
		l Bd.Defl. N-1	1800.00						
		1 Bd.Plot, M-3	6000 •00						
		1 Bd.Spot. H-3	1950-00						
		1 Corr.Perc.E-1	125.00						
		4 Recorders, T.I.	110.00)					
		1 Rule Set Forward	15.00	•					
		1 Scale Pred.	19.0						
		l Indicator, Wind,	Comp,125.0)				36	3294 . C

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Exhibit 9B Page 19 of 41 pages.

Form #20. Annex B

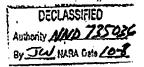
H.D. of L.I.S.

COST ESTIMATE and PRIORITY GUIDE

FIRE CONTROL - SIGNAL and ORDHANCE

Arranged by BATTERY

71- :				Sighal		/
		Description of	:Ordnance:	Equip- :	Labor : 1	iotydi
: No	.: No .:	Project	<u>1</u>	ment :	<u>:</u>	/
•	Do bb a	ry # 3 (Const.#216) 2	ic*Cuna Vonte	and D+ W T	(Contid)	,
	DE C CO.	1 2 3 (CONSCEREZO) 2	o duns, konc	auk regnere	(conc-u)	
2	1-B	B-1S-1 (Location 134	Ditch Plain	, n.Y.)		
		Signal				
		5 Tel.Box EE-91		90.00		
		3 H & C Set, ES-17A		75,00		
		1 Bell T.I.		11.00		
		Contingency		35.00	25 .00	23€,00
		· oon vingoney		7	20000	200,000
		Ordnance				
		2 Az . Inst Ji1910-A	2250.00			2250.00
		- 100. 2000 00.				
2	.1-A	B-2 S-2 (Location 1	5,ShagwongPt.N	·Y,/)		
				1		
		Signal	,	/		
		l Tel. Wall	f	20,00		
		5 Tel. Box EE-91		90.00	•	
		3 H & C Set, HS-17A	/	75,00 11,00		
		1 Bell, T.I.	/	40.00	40.00	276.00
		Contingency		40.00	40.00	2,0,00
		Ordnance				
		2 Az. Inst. 11910-	Al 2250.00			2250.00
2	2 C	B-3 S-3 (Location 1	6 Monteule Dt	N Y)		
2	2-0	p-3 3-3 (Location 1	/ MOHICEUR PC.	·,N·1·)		
		Signal /	•			
		3 Tel. Box EE-91		90.00		
		3 H & C Set, HS-17A		75.00		
		1 Bell. T. I./		11.00		
		Contingency		35.00	25.00	23€.00
		/				
		Ordnance	4500.00			
		1 D.P.F/.	4500.00 1125.00			5625.00
		1 Az. Inst,111910)-AI 1125.00			3623.00
2	1-G	B-4 S-4 (Location 2	24 A, Hill 90.	Fishers Is	.,N.Y.)	
		Signal		20.00		
		1 Tol. Wall		20.00		
•		5/Tel. Sox EE-91	7.6	90.00		
		3 H & C Set, HS-1'	144	75.00 11.00		
		Contingency		40.00	40,00	276.00
		Concerngency		40.00	₹0,00	2.500
		Ordnance				
		Ordnance 2 Az. Inst.				



BECABI

Form #20. Annex B

.

H.D. of L.I.S.

COST ESTILATE and PRIORITY GUIDE

FIRE CONTROL - SIGNAL and ORDEANCE

Arranged by BATTERI

	1 1		3	Sighe		
			totamence:	Equip-	Labor ;	Total
1 300	Ho.:	Project	<u> </u>	ment 2		
·	Batte	ry # 3 (Consts#216)	6 Guns Mon	tauk Pt.N.Y.	(Contid)	
						•
2 ·	1-B	B-15-1 (Location 15)	A, Ditch Flain	. , H.Y.)	•	
,		er 13		•		
		Signal				
		5 Tel.Box EE-91		90.00		
		3 H & C Set, ES-17A		75.00		
		1 Bell T.T.		11.00		_
		Contingency		35,00	25.00	. 236,00
		Ordnance				
		2 Ar., Inst. M1910-A	l 2250.00			2250.00
2	.1-A	B-2 5-2 (Location 1	ShegwongPt.	F.Y.)		
		04				
		Signal 1 Tel. While	٠	20,00		
		3 Tel. Box ED-91				
		8 H & C Set H3-17A		90,400		
			,	76,00		
		1 3e11, T.I.		11.00		
		Contintent	•	40.00	40-00	276-00
		Ordnance .				
		2 Az. Inst. 11910-1	11 2250.00			2250.00
2	2-C	B-3 8-8 (Location 16	5, Montauk Pt	.,r.T.)	•	
•		Signal .	,			•
		3 Tel. Box KE-91	•	00.00		•
		3 H & C Set, RE-17A		90,00		
				75,00		
		1 Bell. T. I.		11.00		
		Contingency		35,00	25.00	256,00
		Ordnance				
		1 D.P.F.	4500 .00			
		1 Az. Inst,101910-				5625.00
			-12, 7250400			0023
. 5	1-6	B-4 S-4 (Location 24	. 00 iin "A	,Fishere Is.	.,r.y.)	
•		Signal				•
		1 Tel. Wall		20,00		
		3 Tel. Box EE-91	•	90-00		
		3 H & C Set, MS-174	L	75.00		
		1 3-11. T.I.	•	11.00		
		Contingency		40.00	40.00	272 44
				±0.400	20,000	276.00
		Ordnerse				
		2 Az. Inst.	•			
		K-1910-A1	2250.00		•	2250.00
			•			

SECRET

Exhibit 98 Page 20 of 41 pages

REPRODUCED AT THE NATIONAL ARCHIVES

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Authority AND 735036

By JCJ NARA Dzis 10-8

Form #20. Annex B

H.D. of L.I.S.

Cost Estimate and Priority Guide

PIRE CONTROL - SIGNAL and ORDHANCE

Arrenged by BATTERY

71- 1	2		* 1	&:	فحها	1 1	
	en:Site		sOrdnance : Equ	paent	-	Labor :	Total
	0.1 No.	Project	1 1		3		
•							•
	Batter	# 12 (Const. #114)2-	15 Ouns, Watch	H111,R	<u>.I.(</u>	Cont'd)	
8	1-A	B-1 S-1 (Location 15	. WIT 100. W	meant 1	D4 .	w w.1	
•		0 - /2000 10	, mar 100 i m		,	P+■+/	
		Signal		•			
		3 Tel.Box EE-91		90.00			
		3 H & C Set, HS-17A		75.00			
		1 Bell. 7.1.MC-168		11,00			
		Contingency.	•	35.00		25.00	236,00
		•	•				
		rinance	•			•	
		1 DPP	4500-00				
		1 Az.Inst.,M-1910-Al	1125.00				5625.00
_	_						
8	1-4	B-2 S-3 (Location 18A	.),Ditch Plain,	, N.T.)			
		54					
		Signal					
		1 Tel.Wall		20.00			
		5 Tel.Moz,EE-91		20-00			
		3 H & C Set, RS-17A		75.00			
		1 Boll, f.I., MC-153		11.00			
		Contingency		40.00		40,00	276.00
		Ordnance .					
		2 Az . Tast . M-1910-Al	2250.00				2250.00
	•				-		
3	1-A	B-8 3-8 (Location 15)	Sharwong Pt.	L.I.N	.Y.)		
		8ignal	,				
		3 Tel Box EE-91		00,00			
		3 H & C Set, HS-17A		75.00			
		1 Bell. T.I. MC-153.	.00	11.00			
		Contingency		35.00		25.00	236,00
		Ordnance					
		3 Az. Inst., M-1910-Al	2250.00				2250,00
-	9.0	D. 4 9-4 /7-matter 10	7	• • \			
3	6-U	B-4 8-4 (Location 16,	MOUDANT LEGIS	··I··J			
		Signal					
		3 Tel Box EE-91		90.00			
		3 H & C Set; ES-17A		75.00			
		1 Bell T.I.		11.00			,
		Contingency		35.00		25,00	236.00
				•			
		Ordnames .	,				
		l DP7	4500.00				
		1 As. That.,M-1910-	41 1125.00				5625.00

SECRET

Exhibit 9B Page 37 of 41 pages

```
Pri-:
                                                           Signal
                                        Ordnance : Equipment
                                                                           Total
                                                                 Labor :
ority:Item:Site:
                    Description of
     : No .: No .:
                       Project
         Battery # 12 (Const. #114)2-16 Guns, Watch Hill, R.I. (Cont)
           1-A B-1 S-1 (Location 13, Hill 100, Montauk Pt., N.)
                 Signal
                                                       90.00
                  3 Tel.Box EE-91
                                                       75.00
                  3 H & C Set, HS-17A
                                                       11.09
                  1 Bell. T.I.NC-153
                    Contingency
                                                                   25.00
                                                                             236.00
                Ordnance
                                             4500.00
                 1 DPF
                                                                            5625,00
                 1 Az.Inst.,M-1910-Al
                                             1125.00
            1-A B-2 S-2 (Location 15A), Ditch Plain, N.Y.)
    3
                 Signal
                  1 Tol. Wall
                                                        20.00
                   3 Tel.Box,EE-91
                                                        90.00
                                                        75.00
                   3 H & C Set, HS-17A
                   1 Bell, T.I., MC-153
                                                        11.00
                                                                  40.00
                                                        40.00
                                                                              276.00
                     Contingency
                 Ordnance
                                             2250.00
                                                                             2250.00
                   2 Az.Imst.,M-1910-Al
            1-A B-3 S-3 (Location 15) Shagwong Pt., L.I., N.Y.)
    3
                  Signal
                   3 Tel.Box.EE-91
                                                        90.00
                   3 H & C Set, HS-17A
1 Bell, T.I. MC-153.00
                                                        75.00
                                                        11.00
                                                        35.00
                                                                   25.00
                                                                               236.00
                     Contingency
                  Ordnance
                   2 Az .Inst . N-1910-Al
                                              2250.00
                                                                              2250,00
    3
             2-C B-4 S-4 (Location 16, Montauk Pt., N.Y.)
                  Signal
                   3 Tel Box EE-91
                                                        90.00
                   3 H & C Set; HS-17A
1 Bell, T.I.
Contingency
                                                         75.00
                                                         11.00
                                                                  25.00
                                                         35.00
                                                                              236.00
                   Ordnánce
                    1/DPF
                                              4500.00
                                                                             5625.00
                     1 Az. Inst., M-1910-Al
                                              1125.00
            <u>T</u>
                                             Exhibit 9B Page 37 of 41 pages
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ī
                                         Termination of each Circuit
                 Purpose
                           s Type
Designation
                                    :Installation :
                   οſ
                           s of
                                                        Place
                                                                  1 Loc. 1Check
    οſ
Installation : Telephone : Phone :
                                                                  : No.
                                                                          sColumn
Location 15
                  Shagwong Pt., L.I., N.Y.
Site 1-A
                                             (216)
                                                                     16-1G
B 2/3 S 2/3
                  Obs
                              HS
                                      PR 3
                                                   Kontauk/Pt.
                                      PR 3
                                             (216)
                                                   Montaux Pt.
                                                                     16-1G
(Const. 216)
                              BS
                  Rdr
                                             (216) Montauk Pt.
                  Sptr
                              ES
                                    <sup>1</sup> PR 3
                                                                   16-16
                                                    Montauk Pt.
                                                                     16-1G
                  TI
                                      PR 3
                                             (216)
                                                     Montauk Pt.
                             Wall
                                      PSB #1
                                                                     16-1D
                  Post
                                    PR 10
                                              (111) 'Wilderness Pt. 23A-la
B 4/10 S 4/10 1
                              HS
                  Obs
                                             (111) /Wilderness Pt. 23A-1A
(Const. 111)
                  Rdr
                              ES
                                      PR 10
                                      PR 10
                                                    Wilderness Pt. 23A-1A
                              ES
                                              (111)
                   Sptr
                                             (111) Wilderness Pt. 23A-12
                                    * PR 10
                   TI
                                              (314)
                                                    Watch Hill
                                                                     28-1C
B 3/12 X 3/12
                   Obs
                              HS
                                      PR 12
                                              (114)
                                                    Watch Hill
                                                                     28-1C
                              HS
                                      PR 12
                   Rdr
                                     PR 12
                                                   'Watch Hill
                                                                    : 28-10
                              HS
                                              (114)
                   Sptr
                                                    Watch Hill
                                                                     28-1C
                                      PR 12
                                             (114)
                   TI
37mm OP 4/1
                    Int
                            * EE-8
                                     : 37mm BC 1
                                                    Ditch Plain
                                                                    13A-1A
BDOP #4
                     Int
                                      BOCP
                                                     Montauk Pt.
                                                                     16-1C
Site 2-A
37mm Sec 3/1
                     Int
                            12 EE-8
                                      ∕37mm BC 1
                                                    Ditch Plain
                                                                    13A-1A
Site 2-B
SC S/L #3P
                     Order
                              EE-8
                                      SC S/L CP 1
                                                    Montauk Pt.
                                                                     16-1C
                            * EE-8
                                     *Controller
                     Order
                                                    Local
                     Order
                            2 EE/8
                                      PP
                                                     Local
SC S/L #4P
                     Order
                              EÉ-8
                                      SC S/L CP 1
                                                     Montauk Pt.
                                                                     16-1C
                                     *Controller
                                                    Local
                     Order
                              ÉE-8
                     Order
                             2 EE-8
                                                     Local
               Montauk Pti L.I., R.Y.
Location 16
Site 1-A
Guns 1
                     Order
                              2850
                                      BC 1
                                               (112) MontaukPt.
                                                                     16-1C
(Const. 112)
                     Range
                            : 5H20
                                     PR 1
                                               (112) Montauk Pt.
                                                                     116-13
                             2HS0
                                      PR 1
                                               (112) Montauk Pt.
                     Az.
                                                                     16-1B
                 Checkback
                             2ESO
                                      PR 1
                                               (112) Montauk Pt.
                                                                     16-1B
                     TI
                                      PR 1
                                               (112) Montauk Pt.
                                                                     :16-1B:
                                      AALIG BC 1
AAMG Plat 1/1
                              EE-8
                                                     Montauk Pt.
                                                                     16-1F
                     Order
Site 1-B
                                      BC 1
                                                                     :16-1C:
PR I
                     Order
                                ES
                                               (112) Montauk Pt.
(Const. 112)
                                HS
                                      BC 1
                                               (112) Montauk Pt.
                                                                      16-1C
                     adO
                     Range
                                \mathbb{R}^2
                                      Guns 1
                                               (112 )Montauk Pt.
                                                                      16-1A
                                               (112) Montauk Pt.
                                      Guns 1
                                                                     '16-1A:
                                HS
                     Az.
                                              (112) Montauk Pt.
                                                                      16-14
                  Checkback
                                HS
                                      Guns 1
                               2HS
                                      Magazine(112) Montauk Pt.
                                                                      16-1A
                 MAG Int
                                               (112) Montauk Pt.
                                                                     :16-1C'
                     TI
                                      BC 1
                                                                      16-1D
                    Post
                               Wall
                                      PSB #1
                                                     Montauk Pt.
                                      B1/1 S1/1(112)Easthampton
                                                                      10-1A
                     Obs
                                HS
                                                                     10-1A
                                HS
                                      ^{1}B1/1 S1/1(112)Easthampton
                     Rdr
                                                                      10-14
                                       Bl/1 Sl/1(112)Easthampton
                     Sptr
                                HS
                                      B2/1 S2/1(112)Amagansett B2/1 S2/1(112)Amagansett
                                                                      11-1A
                     adO
                                HS
                                                                      '11-1A'
                     Rdr
                                HS
                                       B2/1 S2/1(112) Amagansett
                                ES
                                                                      11-la
                     Sotr
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HS-Head Set, TS-Hand Set, EE8-Field Telephone, TI-Time Interval Bell.

S E R E T

Exhibit 11-B, Page 3 of 30 pages

CECLASSIFIED

Authority AND 735036

By JW MASA Date 20-8

SECRE

Form #10. Annex B.

H. D. of L. I. S.

Basic Information for Construction of FIRE CONTROL AND COMMUNICATIONS DIAGRAMS

Designation	: Furpose	; Type	Perminat	on of each Ci	reult :
of	r or	t of	Installation	Place	s Loo. Check
Installation	: Telephon	e s Phone	\$	\$	s No. sColumn
Location 15	Shagwon	g Pt., L	1., N.Y.		
ite I-A	+		· · · · · · · · · · · · · · · · · · ·	1	1 1
3 2/3 8 2/3	೦ ೬ ಕ	ES	PR 3 (216)	Mourtauk Pt.	16-16
Const. 216)	Rdr	ES.	PR 3 (216)		16-1G
(· · · · · · · · · · · · · · · · · · ·	* Sptr	* BS		Montauk Pt.	2 16-10°
	ĨĬ		PR 5 (216)		16-16
	Post	Wall	PSB #1	Montauk Pt.	16-1D
B 4/10 8 4/10	Obs	t BS		'Wilderness	
		-	1 - 1		
(Const. 111)	Rdr	BS			
	Sptr	, ES	· 班 70 (111)		Pt. 83A-1A
	- II	-		'Wilderness :	
B 5/12 # 5/12		HS	PR 12 (114)		28-1C
	Rdr	BS	PR 12 (114)		28-1C
	Sptr	: E\$		Match Hill	1 28-1¢1
	TI	-	PR 12 (114)	Watch Hall	28 -1 C
77mm OP 4/1	Int	* EE-8	1 57mm BC 1	Ditch Plain	1234-11
BDOP #4	Int		BOCP	Montauk Pt.	
Bite 2-4				MODERATE PC.	16-1C
57mm Sec 8/1	E Tret	12 770-0	1 57mm BC 1		3
Site 2-B	, Int	- 2 20-0	- Older BC 1	Ditch Plain	184-14

sc s/l #sp	Order		SC S/L CP 1	Montank Pt.	16-1C
	. OLGA		Controller	Local	: <i>:</i>
	Order		PP ,	Local	
SC S/L #4P	Order	_	SC S/L CP 1	Montauk Pt.	16-1C
	r Order		*Controller	Local	. ;;
	Order	2 EB-8	PP .	Local .	
	•		·	_	
ocation 16	* Montauk	Pes L. I.	H.Y.	•	, 1
ite l-A	_	_			
ims I	Order	• •) MontankPt.	16-1C
Const. 112)	1 Range	12B20) Mondauk Pt.	16-15
	Az.	2B50	PR 1 (112) Montauk Pt.	16-1B
	Chookbaa	k 2550		Montank Pt.	16-13
	² TÌ	[‡] maná) Montauk Pt.	16-1B
AMG Plat 1/1	Order	EE-8	AAMS BC 1	Montank Pt.	16-1P
ite 1-B		•			., -
RI	· Order	HS	*20 1 (112) Montauk Pt.	16-1c1
Const. 112)	Ops	· B S		Montauk Pt.	16-1c
	Range)Montauk Pt.	16-1A
1	· At.	* ES	'Gme 1 (112) Moordand 194	16-1A'
	Checkbeck		Grant 1 1319) Montauk Pt. Montauk Pt.	16-14
	MAG Int		100 H 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Montauk Pt.	
	A	7			16-1A
	TI) Montauk Pt.	116-101
	Post	TALL	PSB #1	Montauk Pt.	16-1D
	058	, BS		2)Easthempton	10-14
	Rar	' BS		2)Resthampton	
	Sptr	.	RIA 81/1/11	2)Rasthampton	10-1A
		E8	H2/1 S2/1(11	2)Amagameett	11-1 <u>4</u>
	Obs	. —			
	Obs Rdr Sptr	BS BS	'82/1 52/1(11 82/1 82/1(11	2)Amagamaett	11-1A

HS-Head Set, TS-Hand Set, EES-Field Telephone, II-Time Interval Boll.

DECLASSIFIED
Authority NND 735086
By Jan Hara Gal- 10-8

SECRET

Form 40. Annex B

H. D. of L. I. S.

Basic Information for Construction of FIRE CONTROL AND COMMUNICATIONS DIAGRAMS

Designation	7	Purpose	7	Type	fermination	n of each Circ	uit ;
of	*	01	\$	of.	:Installation	: Place	s Loc. sChock
Installation	6 1	elephone	ŧ	Phone	t	<u> </u>	: No. :Column
Location 16	Mo	ntauk Pt.		L. Ii.	N. Y. (Cont'd	. 7	
Site 1-B(Con			-				
0119 1000	<u> </u>	_					
PR-1		Op a	_		B2\1 82\1(115		13-14
(Const. 112)		Rdr	I		,82\J 22\J(175	JE111 100	13-14
(Contid.)		\$pt .r			88/1 83/1(112		13-1 <u>a</u>
	_	Obs	_		B4/1 S4/1(112		13A-1B
	*	Rdr	E	***	B4/1 84/1(112	Ditch Plain	13A-15
		Sptr		-	84/1 84/1(112		134-10
	:	CDe +		-	85/1 S5/1 (112		16-24
	•	Rdr	ŧ		85/1 85/1(112	Montauk Pt.	16-57
,		Sptr			B5/1 S5/1(112)Montauk Pt.	16-2 1
81to 1-C	1		•		¥.	1	1 1
G-1		Order		B3	: C-1	Pt. Wright	21-15
		Int		H3	C-1	Ft. Wright	21-11
	1	Order	1	H8	IBC 1 (112)	Montauk Pt.	16-1C:
		Int		HS		Montauk Pt.	16-1C
		Order		ES.		Montauk Pt.	16-1C
	*	Int	*	H3		Montauk Pt.	*16-1C*
Site 1-C							
G-1		Order		BS .	BC 8 (216)	Montaule Pt.	16-17
	ŧ	Int	*	Æ		Montank Pt.	116-IF
		Order		HS	EDCP	Ft. Wright	21-1N
		Int		ES	BDCP	Pt. Wright	21-1N
	2	Post	1	Well	PSB 🚯	Montauk Pt.	116-101
BOCP		Order		183	\$7200 BC 1	Ditch Plain	154-1A
		Int		HB	37mm BC 1	Ditch Plain	13A-1A
	I	Int	1		BDOP #1	Easthampton	130-1A1
		<u>Dut</u>		-	EDOP #2	Bill 100	13-1A
		Int			BDOP #5	Ditch Plain	13 <u>4</u> -14
	ŧ	Int	ż		BDOP #4	Shagwong	115-1A
		Dat		, 	BDOP #5	Montaule Pt.	16-18
		Int			BDOP #6	Whale Hill	17 – 18
	\$	Post		Well	PSB #1	Montauk Pt.	;Je=ID;
sc s/l cp 1		Order		B\$	SC S/L BC	Pt. Wright	21- <u>I</u> N
	_	Int		B8	SC S/I BC	Pt. Wright	21-1 <u>H</u>
	1	Int	*	38	8/L #1 P	H111 100	'la-lB'
		Int		HS	8/L #2 P	H111 100	13-13
¥.	•	Int		H8	5/1.45 P	Spreamone	15-23
,	*	Int.	3	ES	*/1 #4 P	Sportance 2	15-2B
		Dat		BB	8/1 #5 P	Montauk Pt.	16 -2 D
		Int		BS	8/1 #6 P	Montauk Pt.	16-2D
•	Ŧ	Int		HB	ML 新 B	Whale Hill	717-2B *
•		mt		H 3	S/L #8 P	Mhale Mill	17 –2 8
	_	Post		Wall	F83 #1	Montauk Pt.	16-10
Radio Sta #1	1	Int	*	153	1283 1 7	Montauk Pt.	J2-ID;
		Post	2	Desk	PSB #1	Montauk Pt.	16-1D
9C 1		Order		38	G-1	Montauk Pt.	16-1C
(Constr. 112)	3	Dat	1	HS	G-1	Montauk Pt.	76-10 t
		Order		B \$	PRIAGUME(112)		16-1841A
		Obs	•	BS	FRIASta.(112)		16-18
	3	TI.	*			Montauk Pt.	16-18
		Post		WALL	. PSB #1.	Montauk Pt.	16-1D

HE-Read Sot, 18-Rend Sot, EES-Field Telophone, 71-Time Interval Boll.

```
Termination of each Circuit
Designation
                 Purpose
                            : Type
                                                                     : Loc. :Check
                                      :Installation :
                                                          Place
      of
                     of
                             10 :
                                                                     : No. :Column
Installation : Telephone : Phone
                Kontsuk Pt., L. I., N. Y. (Cont'd.)
Location 16
 Site 1-B(Cont'd)
                                       B3/1 $3/1(112)Hill 100
PR-1
                     Obs
                                                                      '13-14'
23-1A
                                      'B3/1 S3/1(112)Hill 100
(Const. 112)
                     Rdr
                                       B3/1 S3/1(112)Hill 100
 (Cont'd.)
                     Sptr
                                       B4/1 S4/1(112)Ditch Plain
                                                                       13A-1B
                     Obs
                                                                       13A-15
                                      B4/1 S4/1(112)Ditch Plain
B4/1 S4/1(112)Ditch Plain
                     Rdr
                                                                       13A-1B
                     Sptr
                                      B5/1 S5/1(112) Montauk Pt.
                                                                       16-5Y
                     Obs.
                                      'B5/1 S5/1(112)Montauk At.
                                                                       :16-5Y:
                     Rdr
                                       B5/1 S5/1(112)Montauk Pt.
                                                                       16-2A
                     Sptr
Site 1-C
G-1
                    Order
                                HS
                                       C-1
                                                          Wright
                                                                       21-1N
                                                       F. Wright
                     Int
                                ES
                                       C-1
                                                                       21-1N
                    Order
                                ES
                                      BC 1
                                                (112)/Kontauk Pt.
                                                                       :16-1C:
                                                (112) Nontauk Pt. (113) Montauk Pt.
                     Int
                                       BC 1
                                HS
                                                                       16-1C
                    Order
                                       BC 2
                                                                       16-1C
                                ES
                                      FBC 2
                     Int
                                HS
                                                 (113) Montauk Pt.
                                                                       116-1C:
Site 1-C
                    Order
                                 HS
                                       BC 3
                                                 216) Montauk Pt.
                                                                       16-1F
                     Int
                                       BC 3
                                                (216) Montauk Pt.
                                RS
                                                                       :16-1F'
                    Order
                                       BDC By
                                 ES
                                                       Ft. Wright
                                                                       21-1N
                                       BDÇP
                     Int
                                 ES
                                                       Ft. Wright
                                                                       21-1N
                     Post
                              * Wall
                                      *P$B #1
                                                      Montauk Pt.
                                                                       '16-1D'
BDCP
                    Order
                                        S7mm BC 1
                                 ES
                                                       Ditch Plain
                                                                       13A-1A
                                       37mm BC 1
                     Int
                                HS
                                                       Ditch Plain
                                                                        13A-1A
                                                      Easthampton
                      Int
                                       BDOP #1
                                                                       10-1A
                     Int
                                       BDOP #2
                                                       Hill 100
                                                                        13-1A
                                       BDOP #3
BDOP #4
                      Int
                                                       Ditch Plain
                                                                        13A-1A
                      Int
                                                      Shagwong:
                                                                       15-1A:
                                       BDOP #5
                      Int
                                                       Montauk Pt.
                                                                        16-1F
                      Int
                                        BDOP #6
                                                       Whale Hill
                                                                        17-1B
                                Wall
                     Post
                                       PSB #1
                                                       Montauk Pt.
                                                                       '16-1D:
SC S/L CF 1
                                       SC S/L BC
SC S/L BC
S/L #1 P
                     Order
                                 RS
                                                       Ft. Wright
                                                                        21-1N
                      Int
                                 HS
                                                       Ft. Wright
                                                                        21-1N
                      Int
                                 \mathbf{E}S
                                                       Hill 100
                                                                       13-1B
                                       S/L #2 P
S/L #3 P
S/L #4 P
                      Int
                                 HS
                                                       Hill 100
                                                                        13-1B
                      Int
                                 HS
                                                       Shagwong
                                                                        15-2B
                      Int
                                 HS
                                                       Shagwong
                                                                       15-2B
                                        S/L #5 P
                      Int
                                 HS
                                                                        16-2D
                                                       Montauk Pt.
                                        S/L #6 P
                      Int
                                 HS
                                                       Montauk Pt.
                                                                        16-2D
                                 HS
                      Int
                                        'S/L #7 P
                                                       Whale Hill
                                                                        :17-2B
                                                       Whale Hill
                                                                        17-2B
                      Int
                                 HS
                                        S/L#8 P
                      Post
                                Wall
                                        PSB #1
                                                       Montauk Pt.
                                                                        16-1D
Radio Sta #1
                              : BS
                      Int
                                        FSB #1
                                                       Montauk Pt.
                                                                        16-1D:
                                        PSB #1
                      Post
                               2 Desk
                                                       Montauk Pt.
                                                                        16-1D
BC 1
                     Order
                                 ES
                                        G-1
                                                       Montauk Pt.
                                                                        16-1C
(Constr. 112)
                                 ES
                      Int
                                        `G−1
                                                       Montauk Pt.
                                                                        :16-1C:
                                        PRL&Guns(112) Montauk Pt.
                     Order
                                 \mathbf{BS}
                                                                        16-1E&LA
                                                                        16-1B
                      Obs
                                 HS
                                        PRI&Sta.(112)
                                                       Montauk Pt.
                                                                        16-1B:
                      TI
                                        PR 1
                                                 (112) Montauk Pt.
                      Post
                                Wall
                                        PSB #1
                                                        Montauk Pt.
                                                                         16-1D
     Head Set, TS-Hand Set, EE8-Field Telephone, TI-Time Interval Bell.
                                             Exhibit 11-B. Page 4 of 30 pages
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Basic Information for Construction of FIRE CONTROL AND COMMUNICATION DIAGRAMS

Of Of Installation Place Loc. ICheck	Designation :	Purpose :	Туре	s Termination of each circuit s
Location 16	· ·			
Site -C (Cont'd)	Installation			
Site -C (Cont'd)	Location 16	Wontauk Pt. 1		V.Y. (Contid)
Const. 115 Int			0.1., 1	(111 (COMO-U)
Const. 115 Int			RS	G-1 Montauk Pt. 16-10
Order ES				
Obs	(00000000000000000000000000000000000000			
TI	:	_		
Fost Wall FSF #1 Montauk Pt. 16-10				
Site 1-D			Wall	
Constr. 113	Site 1-D			-
Constr. 115 Obs		Order	HS	BC 2 (113) Montauk Pt. 16-10
Range BS Gums 2 (115) Montauk Pt. 16-1B Ar. BS Gums 2 (115) Montauk Pt. 16-1B Checkback BS Gums 2 (115) Montauk Pt. 16-1B Checkback BS Gums 2 (115) Montauk Pt. 16-1B TI				
Az. ES Gums 2 (115) Montauk Pt. 16-1E Cheekback ES Gums 2 (115) Montauk Pt. 16-1E Mag Int '2ES 'Magazine(115) Montauk Pt. 16-1E TI — BC 2 (115) Montauk Pt. 16-1D Post Wall PSB #1 Montauk Pt. 16-1D Obs 'ES 'ES/2 S1/2(115) E111 100 13-1E Rdr ES E1/2 S1/2(115) E111 100 13-1E Sptr ES E1/2 S1/2(115) E111 100 13-1B Sptr ES E2/2 S2/2(115) E111 100 13-1B Rdr ES E2/2 S2/2(115) E111 100 13-1B Rdr ES E2/2 S2/2(115) E111 100 13-1B Sptr ES E2/2 S2/2(115) E111 100 13-1B Rdr ES E2/2 S2/2(115) E111 100 13-1B Sptr — E3/2 S3/2(115) Montauk Pt. 16-2E Rdr — E3/2 S3/2(115) Montauk Pt. 16-2E Sptr — E4/2 S4/2(115) E110 E11. 16-2-E Rdr — E4/2 S4/2(115) E110 E11. 16-2-E Sptr — E4/2 S4/2(115) E110 E11. 16-2-E Rdr — E5/2 S5/2(115) Payne E10ck Is. 60-2-2-E Sptr — E5/2 S5/2(115) Payne E10ck Is. 60-2-2-E Rdr — E5/2 S5/2(115) Payne E10ck Is. 60-3-3C Sptr — E5/2 S5/2(115) Payne E10ck Is. 60-3-3C Sptr — E6/2 S6/2(115) Clayhead E1. I. 60-4-4A Rdr — E6/2 S6/2(115) Clayhead E1. I. 60-4-4A Sptr — E6/2 S6/2(115) Clayhead E1. I. 60-4-4A FC Swbd Room 'Post 'SE #1 'Montauk Pt. 16-1D' Site 1-E Gums 2 Order 'ESO E2 (113) Montauk Pt. 16-1D' Checkback 'EBO 'FR 2 (113) Montauk Pt. 16-1D' ALK F1at 2/1 'Order 'EE-8 'AAMS BC 1 'Montauk Pt. 16-1D' AMW F1at 2/1 'Order 'E5 G-1 Ft. Wright 21-1N EC 3 Order 'E5 G-1 Ft. Wright 21-1N Corder 'E5 (FR3&Gume (216) Montauk Pt. 16-1C TI — FR3 (216) Montauk Pt. 16-1C				
Checkback BS Gums 2 (113) Montauk Pt. 16-1B TI — BC 2 (113) Montauk Pt. 16-1B TI — BC 2 (113) Montauk Pt. 16-1B Post Wall PSB #1 Montauk Pt. 16-1D Obs 'BS 'BI/2 SI/2(115) ENI 100 13-1B Rdr ES BI/2 SI/2(115) ENI 100 13-1B Sptr ES BI/2 SI/2(113) ENI 100 13-1B Sptr ES BI/2 SI/2(113) ENI 100 13-1B Rdr ES E2/2 S2/2(113) ENI 100 13-1B Rdr ES E2/2 S2/2(113) ENI 100 13-1B Sptr ES E2/2 S2/2(113) ENI 100 13-1B Rdr ES E2/2 S2/2(113) ENI 100 13-1B Sptr ES E2/2 S2/2(113) ENI 100 13-1B Rdr ES E2/2 S2/2(113) ENI 100 13-1B Sptr ES E2/2 S2/2(113) ENI 100 13-1B Rdr — B3/2 S3/2(113) Montauk Pt. 16-2B Sptr — B4/2 S4/2(113) SW Elock Is. 60-2-2B Sptr — B4/2 S4/2(113) SW Elock Is. 60-2-2B Sptr — B4/2 S4/2(113) SW Elock Is. 60-2-2B Sptr — B5/2 S5/2(113) Payne Elock Is. 60-3-3C Obs '— B6/2 S6/2(113) Clayhead B1. I. 60-4-4A FC Swbd Roon ' Fost '2 Deak 'FSB #1 'Montauk Pt. 16-1D Site 1-E Guns 2 (Constr. 113) ' Range '2ESO BC 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D ALL 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D ALL 2ESO FR 2 (113) Montauk Pt. 16-1D ALL 2ESO FR 2 (113) Montauk Pt. 16-1D ALL 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D ALL 2ESO FR 2 (1			HS	
TI — BC 2 (113) Montauk Pt. 16-10 Post Wall PSB #1 Montauk Pt. 16-10 Obs BS 12/2 S1/2(115) Hill 100 13-1B Rdr BS B1/2 S1/2(115) Hill 100 13-1B Sptr BS B1/2 S1/2(115) Hill 100 13-1B Sptr BS B2/2 S2/2(115) Hill 100 13-1B Rdr BS B2/2 S2/2(115) Hill 100 13-1B Sptr BS/2 S3/2(115) Montauk Pt. 16-2B Sptr B3/2 S3/2(115) Montauk Pt. 16-2B Sptr B3/2 S3/2(115) Montauk Pt. 16-2B Sptr B4/2 S4/2(113) SW Block Is. 60-2-2B Rdr B4/2 S4/2(113) SW Block Is. 60-2-2B Sptr B4/2 S4/2(113) SW Block Is. 60-2-2B Sptr B4/2 S4/2(113) SW Block Is. 60-2-2B Sptr B5/2 S5/2(113) Payne Block Is. 60-3-3C Rdr B5/2 S5/2(113) Payne Block Is. 60-3-3C Sptr B6/2 S6/2(113) Clayhead Bl.I. 60-4-4A Rdr B6/2 S6/2(113) Clayhead Bl.I. 60-4-4A Rdr B6/2 S6/2(113) Clayhead Bl.I. 60-4-4A Sptr B6/2 S6/2(113) Montauk Pt. 16-1D Site 1-E Guns 2 Crash #1 Montauk Pt. 16-1D Az. 2ESO FR 2 (113) Montauk Pt. 16-1D Az.		Checkback	HS	Guns 2 (113) Montauk Pt. 16-1E
Post Wall PSB #1 Montauk Pt. 16-1D		MAG Int	2HS	'Magazine(113)' Montauk/Pt. : 16-1F
Obs		TI		BC 2 (113) Montauk Pt. 16-10
Rdr ES B1/2 S1/2(113) EM1 100 13-1B Sptr ES B1/2 S1/2(113) EM1 100 13-1B Sptr ES B2/2 S2/2(113) Ditch Flain 15A-1A Rdr ES B2/2 S2/2(113) Ditch Flain 15A-1A Sptr ES B2/2 S2/2(113) Ditch Flain 15A-1A Sptr ES B2/2 S2/2(113) Ditch Flain 15A-1A Sptr ES B2/2 S3/2(113) Ditch Flain 15A-1A Sptr ES B2/2 S3/2(113) Ditch Flain 15A-1A Sptr ES B2/2 S3/2(113) Ditch EM2 Pt. 16-2B Rdr — B3/2 S3/2(113) Dintauk Pt. 16-2B Sptr — B3/2 S3/2(113) Dintauk Pt. 16-2B Sptr — B4/2 S4/2(113) SW Block Is. 60-2-2B Rdr — B4/2 S4/2(113) SW Block Is. 60-2-2B Sptr — B4/2 S4/2(113) SW Block Is. 60-2-2B Sptr — B4/2 S4/2(113) Fayne Block Is. 60-3-3C Rdr — B5/2 S5/2(113) Fayne Block Is. 60-3-3C Rdr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Rdr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Rdr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Sptr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Rdr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Sptr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Rdr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Sptr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Rdr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A Rdr — B6/2 S6/2(113) Clayhead B1.I. 60-4-4A FC Swbd Roon ' Fost '2 Deek' FSB #1 ' Montauk Pt. '16-1D' Az. 2ESO FR 2 (113) Montauk Pt. '16-1D' Az. 2ESO FR 2 (113) Montauk Pt. '16-1D' Az. 2ESO FR 2 (113) Montauk Pt. '16-1D' AXW Flat 2/1 : Order : EE-8 :AANG BC 1 :Montauk Pt. '16-1D' AXW Flat 2/1 : Order : EE-8 :AANG BC 1 :Montauk Pt. '16-1D' Site 1-EE Tide Station #1 Post Wall FSB #1 Montauk Pt. '16-1D' Constr. 216) Int ES G-1 Ft. Wright 21-1N Constr. 216) Int ES G-1 Ft. Wright 21-1N Constr. 216) Montauk Pt. 16-1G Obs ES FR3&Sta.(216) Montauk Pt. 16-1G Obs ES FR3&Sta.(216) Montauk Pt. 16-1G			Wall	
Sptr ES BL/2 S1/2(113) mill 100 15-18		Obs 1	HS)	*B1/2 61/2(115)H11 100
Obs		Rdr	HS	
Rdr ES B2/2 S2/2(113)Ditch Plain 13A-1A Sptr ES B2/2 S2/2(113)Ditch Plain 13A-1A 'Obs ' 'B3/2 S3/2(113)Montauk Pt. '16-2B' Rdr B3/2 S3/2(113)Montauk Pt. 16-2B Sptr B3/2 S3/2(113)Montauk Pt. 16-2B Sptr B3/2 S3/2(113)Montauk Pt. 16-2B Rdr B4/2 S4/2(113)SW Block Is. 60-2-2B Rdr B4/2 S4/2(113)SW Block Is. 60-2-2B Sptr B4/2 S4/2(113)SW Block Is. 60-2-2B Sptr B5/2 S5/2(113)Payne Block Is.60-3-3C Rdr B5/2 S5/2(113)Payne Block Is.60-3-3C Sptr B5/2 S5/2(113)Payne Block Is.60-3-3C Obs ' 'B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A Rdr B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A Rdr B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A Sptr B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A FC Swbd Room ' Post '2 Deak 'PSB #1 'Montauk Pt. '16-1D' Site 1-E Gums 2 Order 2ESO BC 2 (113) Montauk Pt. '16-1D' A1. 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D AAMG Plat 2/1 : Order : EE-8 :AAMG BC 1 :Montauk Pt. :16-1D' AAMG Plat 2/1 : Order 'EE-8 :AAMG BC 1 :Montauk Pt. :16-1D' Site 1-F: ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '			HS	
Sptr ES E2/2 S2/2(115) Ditch Plain 13A-1A Obs B3/2 S3/2(115) Montauk Pt. 16-2B Rdr B3/2 S3/2(115) Montauk Pt. 16-2B Sptr B3/2 S3/2(115) Montauk Pt. 16-2B Obs B4/2 S4/2(115) SN Block Is. 60-2-2B Rdr B4/2 S4/2(115) SN Block Is. 60-2-2B Sptr B5/2 S5/2(115) Payne Block Is. 60-3-3C Rdr B5/2 S5/2(115) Payne Block Is. 60-3-3C Sptr B6/2 S6/2(115) Clayhead B1.1. 60-4-4A Rdr B6/2 S6/2(115) Clayhead B1.1. 60-4-4A Sptr B6/2 S6/2(115) Str B6/2 S6/2(115) Str B6/2 S6/2(115)		Obs	HS	B2/2 82/2(113)Ditch Plain 15A-18
Obs Rdr		Rdr	ES	
Rdr — B3/2 S3/2(113)Montauk Pt. 16-2B Sptr — B3/2 S3/2(113)Montauk Pt. 16-2B Obs ' — 'B4/2 S4/2(113)SW Block Is. 60-2-2B Rdr — B4/2 S4/2(113)SW Block Is. 60-2-2B Sptr — B4/2 S4/2(113)SW Block Is. 60-2-2B Sptr — B4/2 S5/2(113)Payne Block Is. 60-2-2B Obs ' — 'B5/2 S5/2(113)Payne Block Is. 60-3-3C Rdr — B5/2 S5/2(113)Payne Block Is. 60-3-3C Sptr — B5/2 S5/2(113)Payne Block Is. 60-3-3C Sptr — B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A Rdr — B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A Sptr — B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A FC Swbd Room ' Post '2 Deak 'PSB #1 'Montauk Pt. '16-1D' Site 1-E Guns 2 Order 2ESO EC 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D AL. 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D ALC 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D Site 1-E Tide Station #1 Post Wall PSB #1 Montauk Pt. 16-1D Site 1-F: BC 3 Order ES G-1 Ft. Wright 21-1N Constr. 216) Int ES G-1 Ft. Wright 21-1N Order : ES PR3&Suns(216) Montauk Pt. 16-1G: Obs ES PR3&Sta.(216) Montauk Pt. 16-1G TI — PR 3 (216) Montauk Pt. 16-1G		Sptr	ES	
Sptr		1 Obs 1	-	
Obs B4/2 S4/2(113) SW Block Is. 60-2-23 Rdr		Rdr		
Rdr — B4/2 84/2(113)SW Block Is. 60-2-2B Sptr — B4/2 84/2(113)SW Block Is. 60-2-2B Sptr — B5/2 S5/2(113)Payne Block Is. 60-2-2B Rdr — B5/2 S5/2(113)Payne Block Is. 60-3-3C Rdr — B5/2 S5/2(113)Payne Block Is. 60-3-3C Sptr — B5/2 S5/2(113)Payne Block Is. 60-3-3C Sptr — B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A Rdr — B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A Sptr — B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A FC Swbd Room				
Sptr		OUS		
Obs B5/2 S5/2(113) Payne Block Is.60-3-3C Rdr B5/2 S5/2(115) Payne Block Is.60-3-3C Sptr B5/2 S5/2(113) Payne Block Is.60-3-3C Sptr B5/2 S5/2(113) Payne Block Is.60-3-3C Sptr B6/2 S6/2(113) Clayhead Bl.I.60-4-4A Rdr B6/2 S6/2(113) Clayhead Bl.I.60-4-4A Sptr B6/2 S6/2(113) Clayhead Bl.I.60-1-4-4- B6/2 S6/2 (113) Cla				
Rdr — B5/2 S5/2(113) Payne Block Is.60-3-3C Sptr — B5/2 S5/2(113) Payne Block Is.60-3-3C Cobs ' — 'B6/2 S6/2(113) Payne Block Is.60-3-3C Cobs ' — 'B6/2 S6/2(113) Payne Block Is.60-3-3C Cobs ' — 'B6/2 S6/2(113) Clayhead Bl.I. 60-4-4A Rdr — B6/2 S6/2(113) Clayhead Bl.I. 60-4-4A Sptr — B6/2 S6/2(113) Clayhead Bl.I. 60-4-4A FC Swbd Room ' Post '2 Desk 'PSB #1 ' Montauk Pt. '16-1D' Site 1-E Guns 2				
Sptr — B5/2 S5/2(113) Payne Block Is.60-3-3C Obs		OD 8		
Obs B6/2 S6/2(113)Clayhead Bl.I. 60-4-44 Rdr				
Rdr Sptr — B6/2 S6/2(113)Clayhead Bl.I. 60-4-44 FC Swbd Room ' Post '2 Desk 'PSB #1 ' Montauk Pt. '16-1D' Site 1-E Gume 2				B5/2 S5/2(113) Payne Block 18.60-3-30
Sptr		ODE	/	. B6/2 S6/2(113)Clayhead B1.1. 60-4-4A
FC Swbd Room ' Post '2 Desk 'PSB #1 Montauk Pt. '16-10' Site 1-E Guns 2 Order 2ESO BC 2 (113) Montauk Pt. 16-10' (Constr. 113) ' Range '2ESO 'FR 2 (113)' Montauk Pt. '16-10' Az. 2ESO FR 2 (113) Montauk Pt. 16-10 Checkback 2ESO FR 2 (113) Montauk Pt. 16-10' TI ' 'PR 2 (113)' Montauk Pt. '16-10' AAMC Plat 2/1 : Order : EE-8 :AAMG BC 1 :Montauk Pt. '16-10' Site 1-EE Tide Station #1 Post Wall PSB #1				
Site 1-E Gums 2 (Constr. 113) Range 2ESO BC 2 (113) Montauk Pt. 16-10 (Constr. 113) Range 2ESO PR 2 (113) Montauk Pt. 16-10 (Checkback 2ESO PR 2 (113) Montauk Pt. 16-10 (Checkback 2ESO PR 2 (113) Montauk Pt. 16-10 TI ' PR 2 (113) Montauk Pt. 16-10 AAMG Plat 2/1; Order : EE-8 :AAMG BC 1 :Montauk Pt. 16-11 Site 1-EE Tide Station #1 Post Wall PSB #1 Montauk Pt. 16-11 Site 1-F : BC 3 Order BS G-1 Ft. Wright 21-1N (Constr. 216) Int BS G-1 Ft. Wright 21-1N Corder : BS PR3&Sta.(216) Montauk Pt. 16-16; Obs BS PR3&Sta.(216) Montauk Pt. 16-16 TI PR 3 (216) Montauk Pt. 16-16				
Guns 2 (Constr. 113) Range 2ESO BC 2 (113) Montauk Pt. 16-1C (Constr. 113) Range 2ESO FR 2 (113) Montauk Pt. 16-1D Az. 2ESO FR 2 (113) Montauk Pt. 16-1D Checkback 2ESO FR 2 (113) Montauk Pt. 16-1D TI PR 2 (113) Montauk Pt. 16-1D AAMC Plat 2/1; Order : EE-8 :AAMG BC 1 :Montauk Pt. : 16-1F: Site 1-EE Tide Station #1 Post Wall PSB #1 Montauk Pt. 16-1D Site 1-F : : : : : : : : : : : : : : : : : : :		. Host	& Deek	LASE #1 MODITARK AL. 10-71
(Constr. 113) Range '2HSO 'FR 2 (113)' Montauk Pt. '16-1D' Az. 2HSO FR 2 (113) Montauk Pt. 16-1D Checkback 2HSO FR 2 (113) Montauk Pt. 16-1D TI ' 'PR 2 (113)' Montauk Pt. '16-1D' AAMG Plat 2/1; Order : EE-8 :AAMG BC 1 :Montauk Pt. '16-1D' Site 1-EE Tide Station #1 Post Wall PSB #1 Montauk Pt. 16-1D Site 1-F : BC 3 Order HS G-1 Ft. Wright 21-1N (Constr. 216) Int HS G-1 Ft. Wright 21-1N Order : HS 'PR3&Guns(216) Montauk Pt. 16-1G: Obs HS PR3&Sta.(216) Montauk Pt. 16-1G TI PR 3 (216) Montauk Pt. 16-1G		0-3	2550	nc 2 (113) Nontant Pt 16-10
Az. 2HSO FR 2 (113) Montauk Pt. 16-1D Checkback 2HSO FR 2 (113) Montauk Pt. 16-1D 16-1D TI PR 2 (113) Montauk Pt. 16-1D 16-1D TI PR 2 (113) Montauk Pt. 16-1D TI PR 3 (216) Montauk Pt. 16-1D Site 1-FE Fide Station #1 Post Wall PSB #1 Montauk Pt. 16-1D Site 1-F : : : : : : : : : : : : : : : : : : :				
Checkback 2HSO FR 2 (113) Montauk Pt. 16-1D TI ' 'PR 2 (113)' Montauk Pt. 16-1D AAMG Plat 2/1; Order : EE-8 :AAMG BC 1 :Montauk Pt. :16-1F: Site 1-EE Tide Station #1 Post Wall PSB #1 Montauk Pt. 16-1D Site 1-F : BC 3 Order HS G-1 Ft. Wright 21-1N (Constr. 216) Int HS G-1 Ft. Wright 21-1N : Order : HS :PR3&Gune(216):Montauk Pt. :16-1G: Obs HS PR3&Sta.(216) Montauk Pt. 16-1G TI PR 3 (216) Montauk Pt. 16-1G	(Constr. 113)			1 2 2
TI ' ' FR 2 (113)' Montauk Pt. ' 16-1D' AAMC Plat 2/I ; Order : EE-8 :AAMC BC 1 :Montauk Pt. :16-1F: Site 1-EE Tide Station #1 Post Wall PSB #1		e e	_	
AAMC Plat 2/1; Order : EE-8 :AAMG BC 1 :Montauk Pt. :16-1F: Site 1-EE Tide Station #1 Post Wall PSB #1 Montauk Pt. 16-1D Site 1-F : : : : : : : : : : : : : : : : : : :				
Site 1-EE Tide Station #1				IN D (III) MONORAL 100
Tide Station #1		t Order	EE-8	:AAMG BC 1 :Montauk Pt. :16-1F:
Site 1-F : : : : : : : : : : : : : : : : : : :		<u>.</u>		<u>.</u>
## Constr. 216) Constr. 216		=		
(Constr. 216) Int ES G-1 Ft. Wright 21-1N : Order: ES :PR3&Gwns(216):Montauk Pt. :16-1G: Obs ES PR3&Sta.(216) Montauk Pt. 16-1G TI PR 3 (216) Montauk Pt. 16-1G				
Order: HS :PR3&Gums(216):Montauk Pt. :16-1G: Obs HS PR3&Sta.(216) Montauk Pt. 16-1G TI PR 3 (216) Montauk Pt. 16-1G		,		
Obs HS PR3&Sta.(216) Montauk Pt. 16-1G TI PR 3 (216) Montauk Pt. 16-1G	(Constr. 216)			
TI PR 3 (216) Montauk Pt. 16-16		•		:PR3&Guns(216):Montauk Pt. :16-1G:
	/			
Post Wall Pos #1 Montauk Pt. 16-10:				
		· Post	1 MUTT	iros#1 imontauk Pt. :16-1D:

HS-Head Set, TS-Hand Set, EES-Field Telephone, TI-Time Interval Boll.

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By JW MARA Date 20-8

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Form #40. Annex B

H. D. of L. I. S.

Basic Information for Construction of FIRE CONTROL AND COMMUNICATION DIAGRAMS

Designation	Parpose	1 Type	: Termin	ation of each cir	mait:
	i of	1 01	Installat	on : Place	: Loc. :Check
Installation	Telephone	: Phone	1		: No. 1Column
				<u> </u>	-
Location 16 Site 1-C (Cont	Montauk Pt.	<u>, lokes</u>	N.Y. Cone	<u>a) .</u>	
30 S C (COME	Order	* B3	; G-1	138-mbs.d- 54	19
(Const. 113)	Dat	- 23 26	G-1	Montauk Pt.	18-10
(0011504 110)	•			Montauk Pt.	16-1c
:	Order	ES ES		113) Montauk Pt.	16-1D & 1E
· ·	UD			115) Montauk Pt.	: 16–1D
	TI.			113) Mondauk Pt.	18-10
att. 1 D	Post	Wa11	PSB AL	Montank Pt.	16-10
Site 1-D	A 5				1 1
PR 2	Order	283		113) Montauk Pt.	16-10
(Constr. 113)	Obs	55E.		113) Montaule Pt.	16-1c
•	Range			115) Montauk Pt.	16-19
	As .	##S	Gune 2	118) Montauk Pt.	18-12
	Checkback	153 1 293	Guns 2 (113) Montauk Pt.	16-12
Ì	Percy Tire	-112		113) Montauk Pt.	16-15
	TI Doct	Wa.11		118) Montank Pt.	16-1c
:	Post	_	P88 #1	Montank Pt.	16-15
	709	280		(115)#11 100	13-15
	Rdr	E		(113)B11 100	18-13
	Sptr Me	HS F PS		(113)H11 100	13-13
· ·	One	F AS BS		(113) Ditch Plain	
	Edr	_	20/2 00/2	(113)Ditch Plain	15A-1A
, , , , , , , , , , , , , , , , , , ,	Sptr) <u>ES</u>		(113)Ditch Flain	
•	908			(113) Montank Pt.	16-2F
	Rdr			(113)Montauk Pt.	16-2B
	Sptr Obs	·	1 04/2 94/2	(113) Montauk Pt. (113) SW Block Is	16-2B • '60-2-2B
	Pdr P		DA/2 84/2	(113)SW Blook Is	60-2-23
	Sytz		BA/2 SA/2	(113)8W Block is	80-2-23
	Obs.	:	1 85/2 86/2	(113)Payne Block	Tal ROL TLAN
	Rain	_	35/2 R5/2	(113) Payme Blook	Ta. 80-3-30
	Sptr	-	B5/2 85/2	(115) Payme Block	Ta.60-3-37
:	Ope		1 BR/2 SR/2	(113)Clayboad B1	7.1 60-4-MA
	Rdr		BC/2 26/2	(115)Clayhead Bl	T. 60-4-44
	Sptr			(115)Clayhead M	
Total Charles The same of		12 Deal	: 1963 #1	Montault Pt.	\$ 16-10'
FC Swod Room	Post	2 Desi	200 PT	montaine Les	· Town
Site 1-E	Order	2380	BC 2 (113) Montauk Pt.	16-1C
Gune 2		2BS0		118) Montauk Pt.	16-1D
(Constr. 113)	Bango As	2 <u>m</u> \$0		118) Montauk Pt.	16-1D
	Checkback		PR 2 (113) Montauk Pt.	16-1D
;	TI	7		113) Montauk Pt.	: 16-10
			`		
AARS Plat 2/1	Order	: EE-8	AAMS BC 1	:Montauk Pt.	:16-1F:
Site l-KE			<u>`</u> .		
Tide Station #	1 Post	Th.11	PSB #1	Montauk Pt.	16-1D
	4	*	;	*	1 1
BC 8	Order	138	G-1	It. Wright	51-12
Constr. 215)	Int		Q-1	Ft. Wright	21-1E
	; Order	* E8		216) Montauk Pt.	:18-1G:
	Obs	HS .		216) Montauk Pt.	16-13
	TI			216) Montauk Pt.	16-16
	· Post	r 75.11	:PSB #1	sMontanie Pt.	126-7D)

HS-Head Set, TS-Hand Set, ESS-Field Telephone, TI-Time Intorval Bell.

P. 06

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Porm #40. Armer B

H. D. of L. I. S.

Basic Information for Construction of FIRE CONTROL AND COMMUNICATION DIAGRAMS

Designation	Purpose	*	Type	1 Termination of each circuit :
-	20	ï		Installation : Place ; Loc. ; Check
Installation				1 No. (Column
Location 16				., N. Y. (Cont'd.)
Site 1-P (Con	10.)	~		-, 17 (OOH 0 01)
Not Sta. #1	Int		ES	HDCP Pt. Wright 21-1N
Signal Sta. #1	Post		Dock	PSE #1 Montauk Pt. 18-10
BDOP # 5		•	***	: EDCP : Montauk Pt. :16-10:
AAMG BC 1	Oxdex		18S	G-7 Ditch Plain 13A-1B
	Int	_	ES	G-7 Ditch Plain 13A-18
1			XX -8	:AAMO Plat 1/1:18ontaule Pt. :16-1A:
	Order		EE-8	AAMG Plat 2/1 Montauk Pt. 16-18
	Order	_	IXE- 8	AAHG Plat 8/1 Local
	Post	Ŧ	Wa 11	:PSB #1 :Montauk Pt. :16-1D:
Site 1-C			o	44100 TV 7
AAMG Plat 3/1	Order	_	EE-8	AAMG BC I Local
Guns 3	01 601		Caes	:BC \$ (216):Montauk Pt. :18-1F:
(Constr. 216)	Range		2550	PR 5 (216) Montauk Pt. 16-16
	As.	_	2550	PR 5 (216) Montauk Pt. 16-16
•	Checkback	•		:FR 3 (216):Montauk Pt. :18-10:
·	TI			PR 5 (216) Nortank Pt. 18-16
FR 3	Order	_	HS	BC 5 (216) Montauk Pt. 16-1F
(Constr. 215)		2		· IBC 8 (216): Montauk Pt. :16-1F:
	Range		B S	Guns 3 (216) Montauk Pt. 16-16
	Az.		BS	Guns 3 (216) Montauk Pt. 18-16
•	Chookback		233 233	:Guns 5 (216):Montauk Pt. :16-1G: Magazine(216) Montauk Pt. 16-1G
	Mag Int		218	O - 1
	. II	_	Wall	BC 3 (216) Mentauk Pt. 16=1F: PSB #1 :Montauk Pt. :16=1D:
•	2.40.	•	HZ	:PSB #1 :Montauk Pt. :16=1D: B1/3 S1/3(218)Ditch Plain 15A-1B
	(Da			Bl/3 Sl/3(216)Ditch Plain LA-IB
•	Rdr	:	es es	13 51/5(216)Ditch Flain :13A-13
•	- P	٠		
	Øb≢ 23-		æ	82/3 82/3(216) Honteuk Pt. 16-16
	Rdr Satu	ŧ	BS	82/3 82/3(216) Montauk Pt. 16-16
•	2504	•		32/3 82/3(216) Montank Pt. 16-16
	Obs			B5/3 S5/3(216) Montauk Pt. 16-2C
	Rdr Snir			B5/3 83/3(216) Montauk Pt. 18-20
	Opos.	•	_	95/8 85/3(216) Montauk Pt. 16-20
	840			84/3 84/3(218) Fill 90 24A-1G
	Rdr	ı	`	B4/3 S4/3(216) Hill 90 24A-lg
•	, Şāct. Ops	•		94/3 S4/3(216) Hill 90 244-16 85/3 S5/3(216) Whitch Hill Pt. 27-24
. •	Rår		-	DO DO DO DO CALO METER STATE AND DE DE
		1		BS/3 85/3(216) Watch Hill Pt. 27-2A BS/3 85/3(216) Watch Hill Pt. 27-22
	Sptr Obs	•		86/8 86/3(216) South West 60-2-24
	Rår			
	=	ŧ		
	Sptr	٠	-	B6/8 36/3(216) South West 60-2-PA
Site 2-A				
B 5/1 8 5/1	, Oba		BS	PR 1 (112) Montank Pt. 16-18
(Constr. 112)	Rar	•	BS	PR 1 (112) Montauk Pt. 16-18
	Sptr		ĦĠ	PR 1 (112) Montauk Pt. 16-18
	, TI			PR 1 (112) Montant Pt. 16-18
	Post		Wall	PSB #1 Kontauk Pt. 16-10

HS-Head Set, TS-Hand Set, ERS-Field Telephone, TI-Time Interval Bell.

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Exhibit 11-B Page 6 of 30 pages

```
Designation : Purpose : Type
                                      ! Termination of each circuit
                             s of
                                       :Installation :
                                                            Place
                                                                      i Loc.
                                                                              :Check
     of
                     10
                                                                               :Column
 Installation : Telephone : Phone :
 Location 16
                  Montauk Pt., L. I., N. Y. (Cont'd.)
 Site 1-F (Cont'd.)
Met Sta. #1
                       Int
                                 BS
                                        HDCP
                                                       Ft. Wright
                                                                        21-1N
Signal Sta. #1
                                Desk
                                        PSB #1
                                                       Montauk Pt.
                                                                        16-1D
                     Post
                                                                        :16-1C:
BDOP # 5
                       Int
                                       BDCP
                                                       :Montauk Pt.
                                        G-7
AAMG BC 1
                      Ordor
                                                       Ditch Plain
                                                                        13A-1B
                                 \mathbf{R}
                                        G-7
                                                       Ditch Plain
                                                                        13A-1B
                       Int
                                 ES
                                       :AAM: Plat 1/1: Montauk /Pt.
                                                                       :16-1A:
                      Order
                                EE-8
                                        AAMG Plat 2/1 Montauk Pt.
                                                                        16-1B
                                EE-8
                       Order
                                EE-8
                                        AME Plat 3/1 Local/
                      Order
                                                       Montauk Pt.
                                                                        :16-1D:
                                       :PSB #1
                      Post
                              : Wall
Site 1-G
                                                        Local
AAMG Plat 3/1
                                EE-8
                                        AAMG BC 1
                      Order
                              : 2HSO
                                       BC 3
                                                 (216):Montauk Pt.
                                                                        :16-1F:
Guns 3
                      Order
                                                  (216)/Montauk Pt.
(Constr. 216)
                                                                        16-1G
                                2HSO
                                        PR 3
                      Range
                                                  (216) Montauk Pt.
                                                                        16-1G
                       Az.
                                2HS0
                                        PR 3
                                                  216) : Montauk Pt.
                                       :PR 3
                                                                        :16-13:
                Checkback 1 2HSO
                       TI
                                        PR 3
                                                  216) Montauk Pt.
                                                                        16-1G
                                                  216) Montauk Pt.
                                                                        16-1F
                                        BC 3
PR 3
                      Order
                                 HS
                                                  (216):Montauk Pt.
                                                                        :16-1F:
(Constr. 216) :
                                 HS
                                       BC 2
                       Obs
                                                  (216) Montauk Pt.
                                                                         16-1G
                      Range
                                 BS
                                        Guns 3
                                                  (216) Montauk Pt.
                                                                         16-1G
                                 HS
                                        Guns 3
                       Az.
                                                 (216):Montauk Pt.
                ! Checkback !
                                 HS
                                        :Guns/3
                                                                        :16-1G:
                                        Magazine (216) Montauk Pt.
                                                                         16-1G
                                2HS
                   Mag Int
                       TI
                                         BC/3
                                                 (216) Montauk Pt.
                                                                         16-1F
                                                                        :16-1D:
                                        :PSB #1
                                                       :Montauk Pt.
                              : Wall
                      Post
                                         \beta 1/3 S1/3(216)Ditch Plain
                                                                         13A-1B
                                 HS
                       Obs
                                         B1/3 S1/3(216)Ditch Plain
                                                                         13A-1B
                                  HS
                       Rdr
                                  BS
                                        131/3 S1/8(216)Ditch Plain
                                                                        :13A-1B
                      Sptr
                               :
                      Obs
                                   HS
                                         B2/3 S2/3(216) Montauk Pt.
                                                                          16-1G
                                        B2/3 S2/3(216) Montauk Pt. B2/3 S2/3(216) Montauk Pt.
                      Rdr
                                   ВŚ
                                                                          16-1G
                                                                         រ 16–1៨
                      Sptr
                                   ĤS
                                         B3/3 S3/3(216) Montauk Pt.
                                                                          16-2C
                      Obs
                                         B3/3 S3/3(216) Montauk Pt.
                      Rdr
                                                                          16-2C
                                        B3/3 S3/3(216) Wontauk Pt.
B4/3 S4/3(216) Hill 90
B4/3 S4/3(216) Hill 90
                                                                         1 16-2C
                      Sptr
                      ad0
                                                                          24A-1G
                      Rdr
                                                                          24A-1G
                      Sptr
                                         B4/3 S4/3(216) Hill 90
                                                                         : 24A-IG
                                         B5/3 S5/3(216) Watch Hill Pt. 27-2A
                      Obs
                                         B5/3 S5/3(216) Watch Hill Pt. 27-2A
B5/3 S5/3(216) Watch Hill Pt: 27-2k
                      Rdr
                      Spt
                                         B6/3 S6/3(216) South West
                                                                           60-2-2A
                       Obs
                                         B6/3 S6/3(216) South West
                                                                           60-2-2A
                       Rdr
                       Sptr
                                         B6/3 S6/3(216) South West
                                                                         1 60-2-2A
Site 2-A
                                                                         , 16-1B
B 5/1 S 5/1
                                                  (112) Montauk Pt. (112) Montauk Pt.
                       Obs
                                   \mathbf{E}
                                         PR 1
 (Constr. 112)
                       Rdr
                                    BS
                                          PR 1
                                                                           16-1B
                                                   (112) Montauk Pt.
                                                                           16-1B
                       Sptr
                                    \mathbf{R}\mathbf{S}
                                         PR 1
                                         PR 1
                                                   (112) Montauk Pt.
                                                                           16-1E
                       TI
                                         PSB #1
                                                          Montauk Pt.
                                                                           16-10
                       Post
                                  Wall
```

HS-Head Set, TS-Hand Set, EE8-Field Telephone, TI-Time Interval Bell.

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Exhibit 11-R Page 6 of 30 pages

Basic Information for Construction of FIRE CONTROL AND COMMUNICATION DIAGRAMS

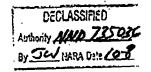
Designation	Purpor	se i Type		tion of each ci								
of	s of	1 of	Installati	on r Place	1 Koc. 1Check							
Installation	: Telepho	one ! Phone		<u> </u>	No. (Column							
Location 16 Montauk Pt., L. I., N. Y. (Cont'd.)												
Site 2-B					/							
					. 14 15							
	: Obs	t BS	•	13) : Kontauk Pt								
(Cons tr. 113)	Rdr			13) Montauk Pt 13) Nontauk Pt								
	Sptr			13) – Montauk Pt 13): Montauk Pt								
Site 2-C	TI	1	PR 2 (1	13) i policade Fe	• • 10-10							
			- 70 (7		n. 02. 1.							
B 5/10 S 5/10	008	ES	PR 10 (1	11) Wilderness	Pt. 23A=1A							
(Constr. 111)	Rdr	ES		11) Wilderness								
	Sptr	· ES		/:	Pt. 23A-1A							
************	TI	1			Pt. 23A-1A							
B 4/12 S 4/12		H2		114) Watch Hill	28-1C							
(Constr. 114)	Rdr			114) Watch Hill								
•	Spt	•	PR 12 / (114) Watch Hill	. ²⁸ -1c							
	TI			114) Watch Hill								
B 3/3 8 3/3	0b s			216) Montauk Pt								
(Constr. 216)	Rdr	•		216) Nontauk Pt								
	Spt			216) Montauk Pt								
37mm OP 5/1	TI Int		PR 5 (. 37mm BC 1	216) Montauk Pt								
Site 2-D	11110	1	NATIOUS TO I	Ditch Plais	n ,134-lķ							
37mm Sec 4/1	Int	2 EE-	3 7mm BC 1	Ditab Dist	m 171 11							
SC S/L #5 P	Orde	,	,									
oo b) h wo r	Orde	• '			· .16-10;							
	Orde	_ /		Local	·							
SC S/L #6 P	Orde				T6-1C							
00 0/ 22 40 1	Orde	1 /	8 Controlle		· :16-10;							
	Orde			Local								
		1			ı :							
Location 17	Whale B	ill, Gardi	ners Island,	N. Y.	• •							
Site 1-A			5 5/		2212							
AA S/L #1 P	Orde	r 2 EE-	8 AA S/L CF	'l Ft. Terry	:19-10,							
n r .+29	. Orde	r '2 EE-	8 PP	Local								
Site 1-B B 1/5 S 1/5	Ob.	. 170	TD 5 /	017 Pt #0	10.17							
(Constr. 217)	Obs Rdr	•		217) Ft. Terry 217) Ft. Terry	19 -17 `. 19 -17 `.							
(Constr. 217)	Spt			217) Ft. Terry	19-17							
	ŢĪ.			217) Ft. Terry								
B 5/12 S 5/12	Obs	1		114) Watch Hill	28-1C							
Constr. 114)	Rdı			114) Watch Hill								
00.10 01 0 11 17	Spt			114) Watch Hill								
	TI	1		114) Watch Hill								
AAOP 3/1	In			Ft. Michie								
BDOP #6	Inf		BDCP	Montauk P								
Site 2-B		ŧ	•	•	* · 1							
SC S/L #7 P	Orde	er EE-6		Pl Montauk P	t. 16-1C							
€	Ord		Controll	er Local	·							
	Ord	er ZEE-	-8 * PP	Local								
SC S/L #8 P	Ord	er : EE	-8 ⁵SC S∕L C	P 1 Montauk P	t. 16-10:							
	Ord			er Local								
	Ord	er 2 EE	-8 PP	Local								

HS-Head Set, TS-Hand Set, EE8-Field Telephone, TI-Time Interval Bell.



Exhibit11-B . Page 7 of 30 pages

P. 07



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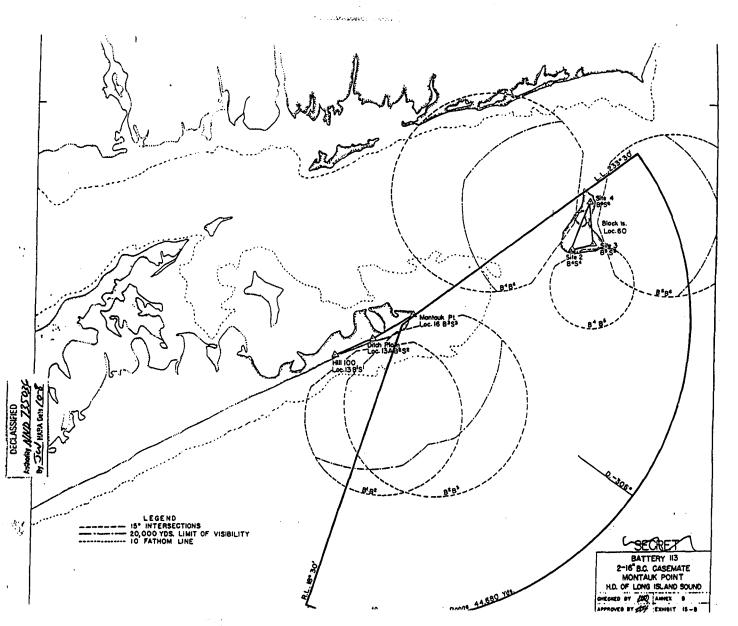
Form #40. Annex B

H. D. of L. I. S.

Basic Information for Communication of PIRE CONTROL AND COMMUNICATION DIAGRAMS

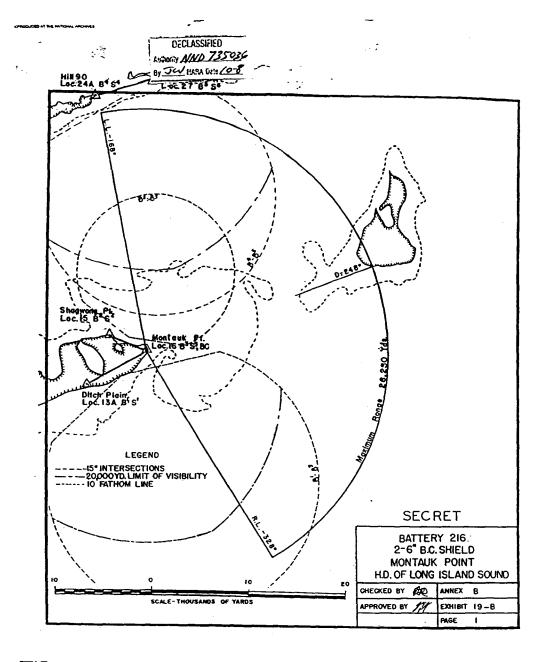
Designation	÷	Purpose	7	Type	: Term	170-110	E Of es	A - 1-	mid+	
of	:	of	;	of	Detail.			ADO		:Check
Installation							<u>) </u>		, No.	*Column
Location 16	14	outsuk Pt.	•	L. I.	H. Y. (Cont'd	.)			
Site 2-B										
B 5/2 S 8/2				-	n	/++=\	. Trank-	.1. 84		_
	7	960		33	23 S		: Monta		16-1	_
(Cons tr. 113)		Rdr		ES	PR 2	(П3)	Monta		16-1	
		Sptr		AS:	PR 2		Monta		16-1	_
*** **	ŧ	ÎI	2		er 2	(TT2)	: Monta	æ Pt.	; 16-1	D
Site 2-C			٠							
B 5/10 5 5/10		Oba		AS	PR 10	(111)	Wilde	mess F	t. 234- t. 234-	JA.
(Constr. 111)	1	Rdr	:	ES	PR 10	(111)	Wilder	moss F	t. 234-	ri.
		Sptr		BS	PR 10	(111)	Wilder	mess F	t. 23A-	3A
		71				(111)			t. 254-	
B 4/12 S 4/12	+	Obs	ŧ	H3	PR 12	(114)	Watch	2433	28-10	<u>.</u> T
(Constr. 114)		Rdr .		B3 ·	PR 12	7777	Watch	PT 7.7	50-T	
(Sptr		133	PR 12				28-14	_
	1	Tì	3		'PR 12) 	Watch Watch	DETT.	28-14	2,
B 3/3 8 3/8		Obs		BS					28-10	
(Constr. 216)		Rár			PR 3		Montau		16-10	
(Amen's ero)	,			HS BS	PR 3	(216)	Montau Montau	k Pt	,16-10	
		Sptr			PR 3	(216)	Monces	k Pt.	16-10	
57mm OP 5/1		TI Turk		***	アスラ	(510)	Montau	E Pt.	16-10	
		Int	1	KE-8'	\$7mm BC	1	Ditch	Plain	134-3	LĄ
Site 2-D							• 	_	•	•
37mm Sec 4/1		Int	Z	EE-8	87mm BC		Ditab		197-1	
SC 3/L #5 P		Order	ż	8-5 X	SC 8/L	CP I	Montau	k Pt.	,16-10	3,
		Order	`_	EE-8	Control	Lor	Local		. "	•*
an a h #		Order	Z	EE-8	.PP		Local			•
8C S/L #6 P	:	Order	t	EE-3	SC 8/L		Montau	r Pt.	. ,18-10) <u>.</u>
		Order	٠.	KE-8	Control	i er	local		·	- *
		Order	2	EE-8	₽P		Local			•
Location 17	W	bale Hill,	G	ardine	rs Islan	1, N.	T.			1
Site 1-A							-			
AA 3/1 42 P		Order	_2	EE-8	AA S/L (CP 1	Ft. Te	TTY	,19-10	١.
	٠	Order	۲2	EE-8	'PP		Local		وجوحات	. •
Site 1-B										
8 1/5 8 1/5		Qb s		ES	PR 5	(217)	Pt. Te	223	19-11	
(Constr. 217)	•	Rdr	•	25	*FR 5	(217)	It. Ic	rry	19-17	7*
		Sptz-		HS.	PR 5	(217)	Pt. To	X LY	19-17	7
		II			PR 5 PR 12	(217)	Ft. Te	TTY	19-17	7.
B 5/12 \$ 5/12	•	Obs	•	335	PR 12	(114)	Watch	Bill	28-10	. •
Constr. 114)		Rdr		BS.	PR 12		Watch		28-10	
		Sptr	•	BS	PR 12	(114)	Match	H111	28-10	
	•	T 1	٠		PR 12	(114)	Watch	Hill	28-10	3 *
AAOP 3/1		Dat		EE-8	AABC 1	•	Pt. Mi		20-11	
BDOP #6	_	Det		~~~~	BOCP		Montau	k Pt.	16-10	
Site 2-B	*	•	*		•		,			1
SC 8/L #7 P		Order		e-e	SC 8/L	CP 1	Montau	k Pt.	16-10	;
	_	Ordor	_ :	EE-8	Control	ler	Local		,	•
	1	Order		EE-8	PP	_	Local	•		• *
SC 8/L #8 P	7	Order			45C S/L	CP 1	Monter	k Pt.	126-16	5 t
.,		Order		85-8	Control		Local			
		Os der	2	EE-8	PP		Local			-
	-		_							

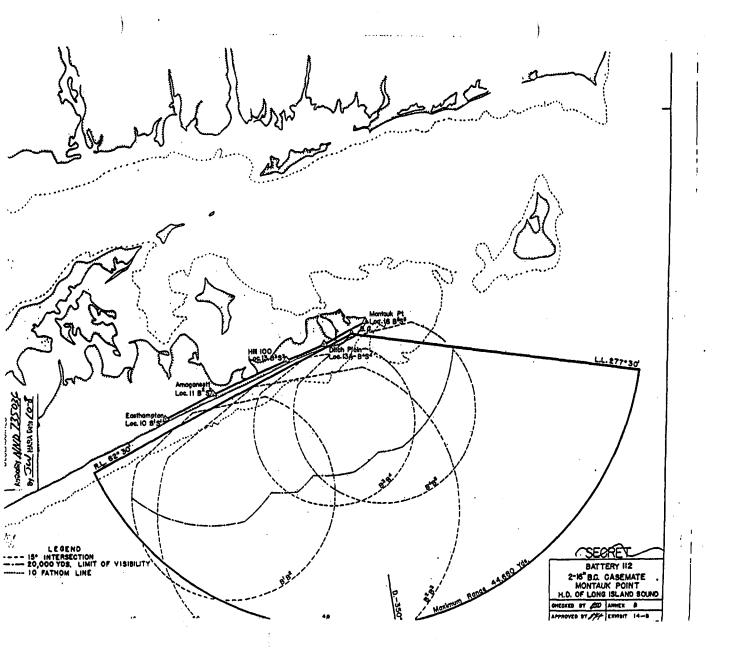
HS-Head Set, TS-Hand Set, EEG-Field Telephone, TI-Time Interval Boll.



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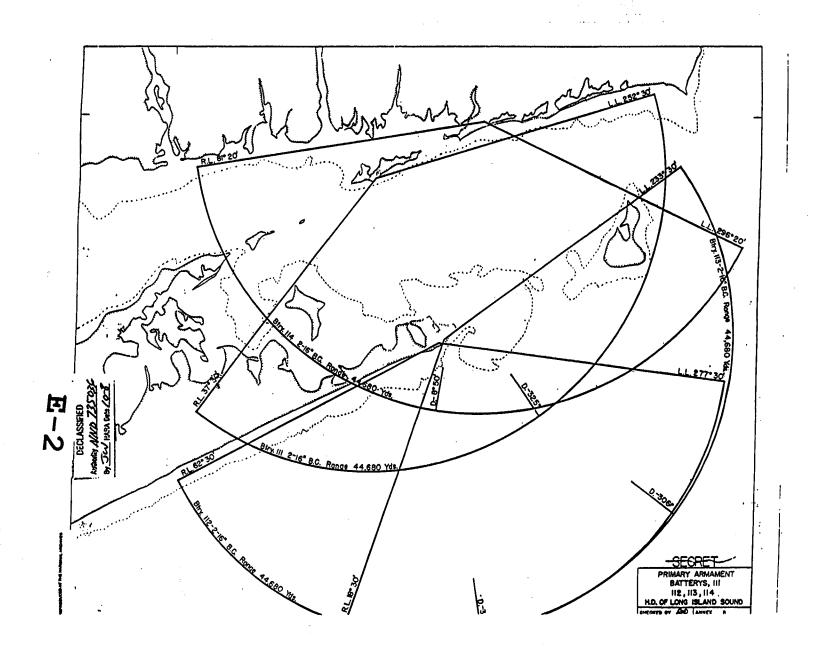
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Dherlestown

H



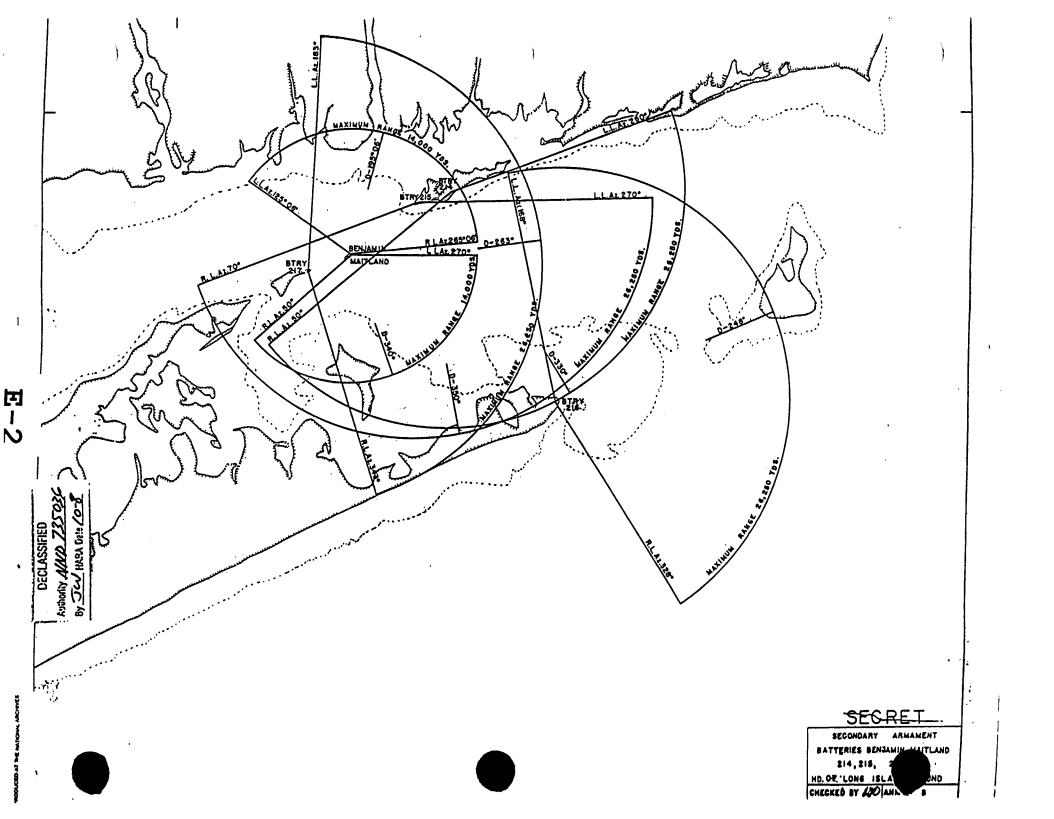
Tacti-	:L	ight	: Tactica	l L	catio	on		-	: T	actical	:	On		Re-₩
cal No.							iteNo	.:Exhibit						
1		P	Hill 100		13		1.B	2-C-2		C-3		0		1
2	:	P	Hill 100	:	13	:	18	: 2-C-2	:	C-3	:	0	:	1
3	:	P	: Shagwong . 4 was		15	:	2 B	: 2-C-2	:	C-3	:	0	:	1
4	:	P	Shagwong Monty		15	:	2 B	2-0-2		C-3	:	0	:	1
5		P	Jiontauk Pt. Sit		16	•	2D	2-0-2	•	C-3	•	0	•	1
6	:	P	:Kontauk Pt. Sing	· V	16	•	2 D	: 2-0-2	:	C-3	:	0	:	1
7 .	:	P	Gardiners Is.	:	17	:	2 B	2-0-2	:	C-3	:	O	:	1
8	•	P	Gardiners Is.	• .	17	•	2 B	2-0-2	•	C-3 ·	•	0	•	1
9	:	F	:Ft. Terry	:	19	:	18	: 2-C-2	: .	C-3	:	1	:	0
10	:	F	Ft. Terry		19	:	Ж	2-C-2	:	C-3	•	1	:	0
11		F	Ft. Terry	•	19	-	1 H	2-C-2	•	C-3	•	1	•	0
12	: -	اسير	:Ft. Terry	:	19	:	lt	: 2-0-2	:	C-3	:	ŗ	:	0
-13		F_	-Ft. Terry		-19		-117-	2-6-2		- C-3		1		-0
14 ¹³	:	F	: Ft. Nichie	:	20	:	1 A	2-C-2	•	C-3	:	1	:	0
25 p	:	F	:Ft. Kichie		20	•	1C	: 2-0-2	:	C-3	:	1	:	0
.76 ⁻¹⁵		₹.F	Tt. lichio bish	91	20-	:	10	2-0-2		C-3		1	:	0
-17-	<u>-</u>	·P-	Ft. Wright		21-		-1 A-	- 2-6-2		- 0-3		1		0
18	-		्रिक्त ते त्रंडीत	-:-	-21-	-:	} . -	· : 2 -0-2		-6 -3 ····		.1-		-0-
2917	•	æ	Lt. Prospect	:	23	:	JD	2-C-2	•	C-3	•	1	:	0
-20 ⁻ 18 19	•	.P-1	Ht. Prospect	•	23	•	10	2-C-2	•	C-3	•	1	•	σ
20	:	P	Hill 90	1 -	26 B	:	1 B	: 2-C-2	:	C-3	:	0	:	1
-22	:	P	-Ft. Trumbull	•	26C	:	1.4	2-C-2	:	C-3		0	:	1
23-21	•	P	Watch Hill Pt.	• .	27	•	18	2-C-2	•	C-3		1		0
242	۷.	P	:Watch Hill Pt.			:	1 B			_		: 1	:	0
NO	TE:	-	There are 2 fix	-d-1	ight	s Tid	ith p	ower and	rem	ote-cont	٠ ٢ ٠	3 1	1	بالأثيوع

NOTE: There are 2 fixed lights with power and remote control / profile and equipment in reserve at Fort H. G. Wright, N.-Y.

NOTE: * Lake notations of lights already approved. Beneath the tabulation for each searchlight enter on this sheet data as to the construction and the land procurement necessary at its location, including controller station sites.

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Exhibit 2-C, Page 1 of 2 pages.

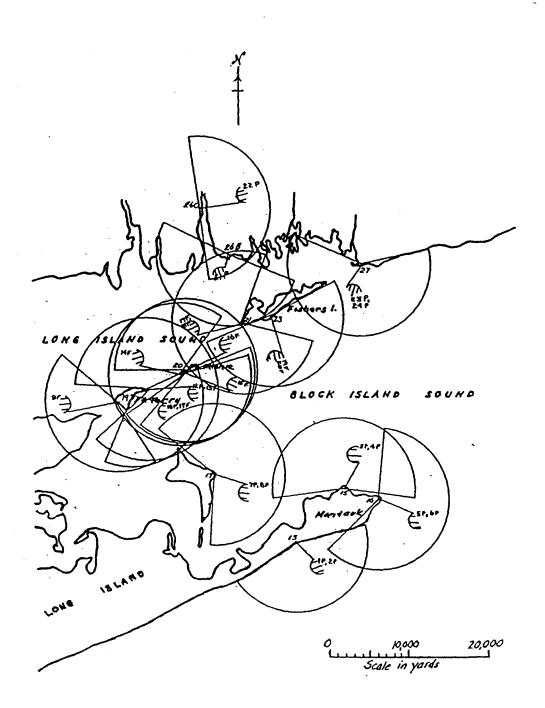


Form #22. Annex C

H. D. of Long Island Sound

LOCATION OF SEACOAST SEARCHLIGHTS (HD)

(After completion of Modernization Program)



DECLASSIFIED
Authority NND 735036
By JCJ MARA Dels 10-8

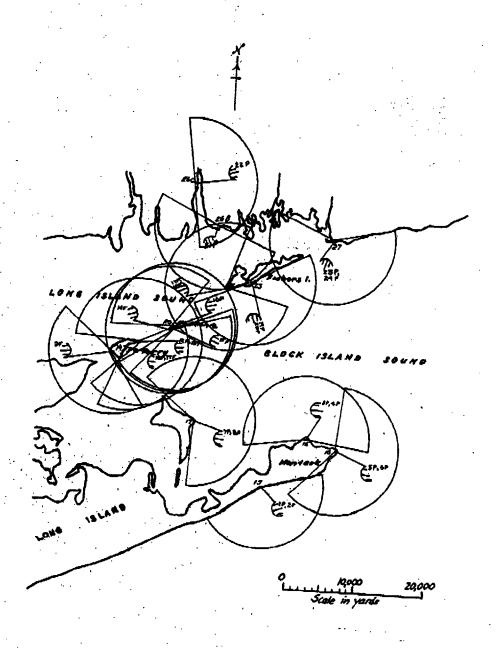
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Form #22. Annex C

H. D. of Long Island Sound

LOCATION OF STACOAST STARCHLIGHTS (HD)

(After completion of Modernization Program)



<u>SECRET</u>

Exhibit 8-C Page 2 of 2 pages.

DECLASSIFIED

Authority WAND 735035

By Sal Hara Deto Long

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Form 23. Annex C

H. D. of L. I. S.

SHELTER FOR SEARCHLIGHTS

(Harbor defense and antiaircraft lights other than at tactical positions.)

Pri-	•			 -	· · · · · · · · · · · · · · · · · · ·	4 0000	Mand
ority	sitem No.s	Type of	Construction		Place		Spaces Promise-
No.	·					tito. t	

Corrugated asbestos Montauk Pt. 16 8 Nome type Shelter for L. I. storage of 8 S/L, portable complete

NOTE: * If no additional land is required enter "NOME"

SECRET

Exhibit 3-C, Page 1 of 1 page

SHELTER FOR SEARCHLIGHTS

(Harbor defense and antiaircraft lights other than at tactical positions.)

No.: Type of Construction	f Place	sloca-s stion s sNo. s	Space Procure-
Corrugated asbestos type Shelter for storage of 8 S/L, portable complete	Montauk Pt. L. I.	16	8 None
			·
	,		
	Corrugated asbestos type Shelter for storage of 8 S/L.	Corrugated asbestos Montauk Pt. type Shelter for L. I. storage of 8 S/L.	No.: Type of Construction: Place :tion: Corrugated asbestos Montauk Pt. type Shelter for L. I. storage of 8 S/L.

NOTE: * If no additional land is required enter "NONE"

SECRET

Exhibit 3-C, Page 1 of 1 page

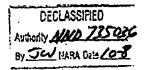
Form 24. Annex C

H. D. of L. I. S.

Cost Estimate and Priority Guide for SEARCHLIGHTS

	Location No. 16 (Vontauk Po:	int);		
4	S/L No. 5P			
	Engineers		,	
	1 Portable S/L W/PH & C. Station	21,000.00		
	1 35' S/L Tower(Demount.)			\$23,000
	Signal:			
	4 Tel. EE-8	118.80		
	4 H & C Set ES-17A 1 Wile Field Wire W-110	100.00 37.00	255.80	
	1 1110 1101d H110 H-110	21.00	42)).00	
4	S/L No. 6P			
	Engineer: 1 Portable S/L W/PH &			
	C. Station	21,000.00		
	1 35' S/L Tower(Demount.)			23,∞0
	Signal:	/ ,,,,,,,,,		
	4 Tel. EE-8 4 H & C Set HS-17A	118.80 100.00		
	1 Mile Field Wire W-110	_37.00	255.80	
4	sh an Hi			
4	S/L CP #1 Signal:			
	13 Tel. Box EE-91	390.00		
	11 H & C Set HS-17A	275.00		
	2 Hand Sets TS-12A 1 Tel. Wall	24.00 20.00		
	1 S/B BD-105	230.00	939.00	
•	Location No. 17 (Whale Hill	<u>) :</u>		
4	S/L No. 7P			•
	Engineer:			
	l Portable S/L W/PH & C. Station	21 000 00		03.00
		21,000.00		21,00
	Signal: 4 Tel. EE=8	118.80		
	4 H & C Set HS-17A	100.00		
	1 Mile Field Mire W-110	37.00	255.80	
4	S/L No. 8P			
	Engineers			
	1 Portable S/L W/PH &	122 122 23		
	C. Station	21,000.00		21,00
	Signal: 4 Tel. EE-8	118.80		
	4 H & C Set HS 17A	100.00		
	1 Mile Field Wire W-110	37.00	255.80	
Î A				

E-2



SECRET

Form 24. Annex C

H. D. of L. I. S.

Cost Estimate and Priority Guide for SEARCHLIGHTS

Prior-:It	em: Location Number & : - : Description of Project :		I I	I Produces
10,0110			r sagnar, ore	. septimeer
	Location No. 16 (Montauk P.	oint):		
4	s/L no. 59			
	Engineers			
	1 Portable S/L W/PH &			
	C. Station	\$21,000.00		4 07 4 00
	1 35' S/L Tower (Demount.	1_2,000.00	•	\$23,000
	Signal:	110 00		•
	Д Tel. EE-8 Ц H & C Set ES-17A	118,80 100,00		
	1 Mile Field Wire W-110	37.00	\$255.80	
	1 7.2 0 1. 10. 11 11 11 1 1 1 1 1 1 1 1 1 1 1	71.00	42//200	
4	8/L No. 6P			
	Engineers			
	1 Portable 8/L W/FH &			
	C. Station	21,000.00		
	1 35' S/L Tower(Demount.	2,000,00		23,000.
	Signal:			
	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	118.80		
	4 H & C Sot HS-17A 1 Mile Field Wire W-110	100,00	OEE RA	
	. I MING FIELD WIFE W-IIO	37.00	255.80	
4	s/L or #1			
	Signal:			
	13 Tel. Box EE-91	390.00		
	11 H & C Set HS-17A	275.00		
	2 Hard Sets TS-12A	50°00 51°00		
	1 8/B BD-105	230.00	939.00	
			<i>)))</i>	
	Location No. 17 (Whale Hill	<u>1):</u>		,
4	S/L No. 7P			•
."	Engineers		•	
•	1 Portable S/L W/PH &			•
	C. Station	21,000.00		21,000.
	Signal:		•	
	4 Tel. EB-8	118,80		•
	4 H & C Sot HS-17A	100.00	4-	
	1 Mile Field Wire W-110	37.00	255.80	
4	S/L No. &P			
	Engineer:			
_	1 Portable S/L W/PR &	1		
•	C. Station	21,000.00		21,000.
	Signal:			
	4 Tel. E8-8	118.80		
	4 H & C Set HS 17A	100.00	oet so	
	l Mile Field Wire %-110	<u>37.00</u>	255.80	
	•			

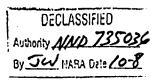
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Authority NND 735036
By ScJ NARA Data 2015

3 E C R E T

HARBOR DEFENSES OF LONG ISLAND SOUND

EXHIBIT - ANGEX "D"

No Underwater Defenses in these Harbor Defenses.



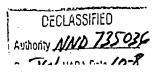
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HARBOR DEFENSES OF LONG ISLAND SOUND

EXHIBIT - ANNEX "D"

No Underwater Defenses in these Harbor Defenses.

<u>SECRET</u>



Form #29. Annex E

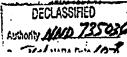
H. D. of L. I. S.

ANTIAIRCRAFT AUTOMATIC WEAPONS

The authorized antiaircraft automatic weapon defense is disposed as shown in the following tabulation and the indicated exhibits.

1		\$: :		Battle:	Аш	unition	1
1-sN	ío. o	f: Loc. No. and Place	:Site:		. All.:	Place of	s On	s Re-
3	Guns	; and Place	:No. :I	ahibit	t Amm.t	Storage	: Hand	squired
: m	2:	: 13-B Culloden P		3-E-3		Montauk Pt. Reservation		:
: :	2	: 13-A Ditch Plai Wind Mill	n	3-E-3		H T		:/
um :	2		2 - A		7200	· 10 1	•/	
7 mm :	2	16 Montauk		3-E-3	7200	# /	<i>.</i>	:
'mm' :	2	19 West End. Plum Is.	1-A	3-E-3	7200	Greble	:	;
7 mm		Plum Is. 19 East End.	1-X			Greble	:	:
71 121 1	2	Plum Is. 20 Viest End.		3-E-3	: 7200 :	Palmer	:	:
: Tuun		Ft. Michie	:	3-E-3/	:/7200 :	Palmer	` ;	:
:	•	East End. Ft. Michie			: :	Paul	:	:
	2	: Race Poin	_ /	,	:	Barlow	:	:
,		: Avery Pt.			; ⁷²⁰⁰ ;		:	:
7 <u>mp</u>	2	East Point	, 1-c	3-E-3	; ⁷²⁰⁰ ;	Barlow	:	:
7 mi	2	: 27 Watch Hill		3-E-3	7200 :	Watch Hill	:	:
7 	2	: 28-A Wilderness F	: 1-G: t.	3-E-3	7200 :	Barlow	:	:
:		:/ /.		al- S	3,600 :		: None	93,6
:	/	· :	: :	;	:		:	:

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F8 C 2 B 7

Form #29. Annex E

H. D. of L. I. S.

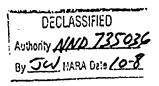
ANTIAIRCRAFT AUTOMATIC WEAPONS

The authorised antiaircraft automatic weapon defense is disposed as shown in the following tabulation and the indicated exhibits.

		f: Loo. No.	2 5		Battle	8	Amminiti	72
li-: er :	No. o: Cons	f: Loc. No.	iSite:	Rahihit	i All	t Place o	I ; On	t Re-
		-			- 44-44-7		, , , , , , ,	a sdarrad
/max. ⁶	2:	: 15-B Culloden P	' 2-4' t.	5-E-S	· 7200	: Montauk Reservat	Pt.	:
72000.* :		: 15-A Ditch Plais Mind Mill	1	•			1	:
			•		:	:	:	:
2000a	2	15 Shagwong	2-4	3-E-3	7200	.		•
	2	16	2-D	3~ E-3	9200	·•	: .	. •
		•	•			:	٠,	• ` ,
7 xxx. :	_	19 West Ind. Plum Is,	1-A : :	3-E-3	7200	Greble		
							•	• .
73 000 2_	z	: 19 East End. Plum Is.	, 1-X,	5 -2-3	7200	Greble	:	·
7 mai	2	20 West End.			· 7200	Palmer	:	:
:		Ft. Mobie	: :		:	1	:	:
	2	20 East End. Ft. Michie	7_^	*-F-S	7200	Dalman	•	
:		Ft. Michie	: :	•	:	:	:	:
, Jami	2	: 21 Race Poin	i 1-4	3-E-3	7200	Barlow :	:	:
7220	2	26-B Avery Pt.	1- <u>4</u>	5-2- 3	7200	Barlow	:	;
فسور	. `	25 East Point F.I.	1-C	5-P-5	7200	Barlow:	:	:
7amie	2	: 27 Watch Hill	: 1-A: Pt.	3- E -\$	7200	Watch H	112 :	:
7=		: 25-A Wildsrmess P		5 –6-8	7200	Barlow	:	÷ .
. :		:	Tót	al- (8,600		: Kon	a : 95,600
:		:	: :	:	ŧ	:		:

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.Exhibit 3-E, Page 1 of 3 pages



SECRET

Form #29. Annex E

H. D. of L. I. S.

ANTIAIRCRAFT AUTOMATIC WEAPONS

The authorized antiaircraft automatic weapon defense is disposed as shown in the following tabulation and the indicated exhibits:

	1		f	\$:Battle:	Amı	munition	1
			Loc. No.			: All. :		s On	: Re-
ber	* G	ıns	and Place	: No.	:Exhibi	t: Amm. :	Storage	: Hand	squired
50 C a	i.	4	16 Near 112	: 1-A	1-1	28,800	Montauk Pt. Reservation	:	:
•	: .	4	16 Near 113	: 1-E:	1 - I	28,800	п	:	:
•	:	4	16 Near 216	: 1-G:	1-1	:28,800	Ħ	:	:
Ħ	:	4	19 Plum Is.	: 1-H	1 - I	:28,800	Greble	:	:
Ħ	:	4	19 Plum Is.	: 1-Q	1 - I	28,800	Campbell	:	:
a	:	4	20 Ft. Nichie	1-G	1 - I	:28,800	Palmer	:	:
Ħ	:	4	21 Ft. Wright	: 1-E	1 - I	28,800	Hamilton ,	:	:
*	:	4	21 Ft. Wright	: 1 - N	1 - I	: 28,800	Hamilton	:	:
Ħ	:	4	23 Mt.Prospec	i t 1-P	 1-I	28,800	Hamilton,	:	:
w	:	4	F.I. 23A Wilderness F.I.	P‡ I-c	1-1	28,800	Hamilton	:	:
Ħ	:	4	28 Near 1 ₁₄	, 1-A	1-I_	28,800	Watch Hill	: '	:
	:		:	: :	TOTAL	316,800:	<u> </u>	:33,600	283,20
	:	:		. :	:	: 1		:	:
	: 1	OTE	1. Authori				tter W.D.,	:	:
	:		_		:	, ualou (700 CO, 1340	•	
	•	,	;	•		•		•	:
	:	:	:	: :	:			:	:

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Authority NND 735036
By JW MARA Date 10-8

SECRET

Form #32. Annex G H. D. of L. I. S. Cost Estimate and Priority Guide

GAS DEFENSE

 -					
Pri: or-:Item		: :Site:	Place and Flement	•	Total Cost
ity:No.				:Itemized	/
3		1-B	MONTAUK POINT		
2	10	1-6	-		
			P-1 (Const. #112)		
			Chemical Warfare:		
			4 Collective Protectors	\$3,200	
			16 Canisters, Spare	4,320	\$7,6520(CWS)
			Engineer:		
-			Installation	960	/ 960(Eng)
			(1000)		
3		1-A	Latrine (Const. #112)		
			Chemical Warfare:		
			1 Collective Protector	/8 0 0	
			4 Canisters, Spare	1,080	1,880(CWS)
			Engineer:		
			Installation	/ 24o	21 ₄ 0(Eng)
_			(//222)	/	
3		1-D	P-2 (Const. #113)		
			Chemical Warfare:		
			4 Collective Protectors	3 , 200	
			16 Canisters, Spare	4,320	7,520(CWS)
			Engineer:		
			Installation	960	960(Eng)
_			7 1 1 (0-11-4 1777)		•
3		1-E	Latrine (Const. #113)		
			Chemical Warfare:		
			1 Collective Protector	800	
			4 Canisters, Spare	1,080	1,880(CWS)
			Engineer:	,	ol o (r)
			Installation	240	240(Eng)
2		1 - G	P-3&Latrine (Const. #216)		
2		1-0	,		
			Chomical Warfare:		
•			2/ Collective Protector	1,600	3,760(cws)
			8 Canisters, Spare	2,160	5, 700 (Chs)
			Engineer: Installation	480	480(Eng)
	19	,	/	4	4
4	17	1-K	FORT TERRY FSB		
4			Chemical Warfare:		
		/	1 Collective Protector	800	
			4 Canisters, Spare	1,080	1,880(cws)
	/	/	Engineer:		
			Installation	1,800	1,800(Eng)
2		1-7	P-5 & Latrine (Const. #217)		
	/		Chemical Warfares		
/	/		2 Collective Protector	1,600	
/			8 Canisters, Spare	2,160	3,760(CWS)
/			Engineer: Installation	1.00	1.90/5
_/			THECHIACION	<u> 4</u> 80	480(Eng.)
/					

....

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Authority ANNO 735035
By JCJ Hapa Data Lots

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Form #32. Annex G H. D. of L. I. S. Cost Estimate and Priority Guide

GAS DEFINISE

Pris 6 3 3 Place and Riement 4 Cost : Total Cost	
or-sItemsLoc. (Sites Place and Element (Cost : Total Cost ity: Eo. : Eo. : to be protected : Itemized :	• • •
3 16 1-B MENTAUK POINT P-1 (Const. #112)	
Chemical Farfare: 1 Collective Protectors \$3,200 16 Canisters, Spare 47,520 (CWE	;}
Engineer: Installation 960 960(Eng	5)
3 l-A Latrina (Const. \$112)	
Chemical Warfaro: 1 Collective Protector L Canisters, Spare 1,880(CNS	5)
Engineers Sho 210(Eng	3)
3 1-D P-2 (Const. #113)	
Chemical Warfaro: 1. Collective Protectors 3,200 16 Canisters, Sparo 1,520 7,520(CWS	s)
Installation 960 960(Eq.	£.)
3 1-E Latrine (Const. #113)	
Chemical Warfare; 1 Collective Protector 800 4 Camisters, Spare 1,080 1,880(CW.	(3
Engineer: Installation 240 240(En	g)
2 l-G P-3&Latrine (Const. #216)	
Chemical Marfare: 2 Collective Frotector 1,600 8 Cemisters, Spare 2,160 3,760(CW	æ)
Engineer: 180 480 Engineer:	ų)
L 1-K FSB	
Chemical Warfare: 1 Collective Protector 800 4 Canisters, Spare 1,080 1,880(CR	
Installation 1,800 1,800 (En	ıg)
2 1-7 P-5 & Latrine (Const. #217) Chemical Warfare:	
2 Collective Protector 1,600 8 Canisters, Spare 2,160 3,760(CY Engineer:	•
Installation 480 480(Rr	25.)

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Exhibit 1-6, Page 1 of 3 pages

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Authority AND 735036
By John Mara Gate Long

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Form #33.

SULTARY OF LAND PROCURESENT RECUES ENDED

Ref:Loc.:	;Acre	:-:Estimate	d: Ex- : Reference to Author-
Par: No.: Purpose	: 826	: Cost	:hibit: ity for procurement
10 Fire Control St	ation 0.1	÷ 34,400	2-H-1 Not yet approved
11 Fire Control St	ations 1.0	36,400	2-H-2 Not yet approved
: HILL 100 13 Fire Control St	cations 1.5	\$6,000	2-H-3 Not yet approved
: : DITCH PLATE 13-A Fire Control St	ations 1.5	: \$6,500	2-H-4 Not yet approved
: SHAGRUNG 15 Fire Control St	ations 1.0	; \$2,500	: 2-H-5 Not yet approved
16 Battery Constr.	#112, 470	\$270,000	1-I-7 Approved, Ref. #10
trol Stations-R		.	:
17 Fire Control St	ations 1.5	; 36,550	: 2-H-6 Not yes approved
: ::::::::::::::::::::::::::::::::::::	#111 & 130 strol	\$260,000 :	: : 1-1-16 Approved, Ref. #10
: HILL 90 21-A Fire Control St	tations 4.0	\$6,500	: 2-H-8 Not yet approved
: <u>PINE ISLANI</u> 26-A Fire Control St	tation 0.6	\$2,000	: : 2-H-9 Not yet approved
28 Battery Constr. Fire Control St.	#P 1 7 10 10 10 10 10 10 10 10 10 10 10 10 10	; \$70,000 :	: : : 1-I-23 Approved, Raf. #10
		A/1 A D==	
Cost of land f battery constr	or now	\$640,850	(Annex A. Exhibit 10-4-3)
Not cost of la		\$ 40,850	(Total for Amnex H)
Point, Noyes	Point, Charle	stown, Gree	ns located at Watch Hill on Hill and Block Island gansett Bay Project.

Exhibit 1-H, Page 1 of 1 page.

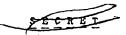
SECRET

SUITARY OF LAND PROCURETENT RECORD NDED

Ref:Loc.: Par: No.: Furpose	:Acre-:Estimated Ex- : Reference to Author- : age : Cost :hibit; ity for procurement
: EASTHE PTON 10 Fire Control Station	:0.1 : \$4,400 2-H-1 Not yet approved
: <u>AMAGANSETT</u> 11 Fire Control Stations	1.0 : 36,400 2-H-2 Not yet approved
: : <u>HILL 100</u> 13 Fire Control Stations	: 1.5 :
: : <u>DITCH PLAINS</u> 13-A Fire Control Stations	: 1.5/: \$6,500 2-H-4 Not yet approved
: : <u>SHAGEURG</u> 15 Fire Control Stations	: 1.0 : \$2,500 2-H-5 Not yet approved
: LICHTAUK POINT 16 Battery Constr. #112, 113 & 216 - Fire Con-	/ 470 \$270,000 1-I-7 Approved, Ref. #10
trol Stations-Reserve	: : :
: : <u>THALE HILL</u> 17 Fire Control Stations	: : : : : 1.5 %,550 2-H-6 Not yet approved
: : WILDERNESS POINT 23-A Battery Constr. #111 6 #214 - Fire Control	: : : : : & 130 \$260,000 1-I-16 Approved, Ref. #10
: Stations - Reserve Lagazines	: : :
· 24-A Fire Control Stations	: : : : : : : : : : : : : : : : : : :
: : <u>PINE ISLAND</u> 26-A Fire Control Station	: : : : : 0.6 \$2,000 2-H-9 Not yet approved
: : MATCH HILL 28 Battery Constr. #114, Fire/Control Stations	120 \$70,000 1-I-23 Approved, Ref. #10
& Magazine	: : : : : : : : : : : : : : : : : : :
Cost of land for new battery construction	
Net cost of land for fire control constru	ction. \$ 40,850 (Total for Annex II)
/ Point, Noyes Point,	re control stations located at Watch Hill Charlestown, Green Hill and Block Island Defenses of Narragansett Bay Project.

 $\underline{\mathbf{S}} \underline{\mathbf{E}} \underline{\mathbf{c}} \underline{\mathbf{R}} \underline{\mathbf{E}} \underline{\mathbf{T}}$

Exhibit 1-H, Page 1 of 1 page.



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	H. D.	of	L.	I.	s.	

Location No. _

16

PRELIMINARY DATA FOR PROPOSED LAND ACQUIREMENT

	·	
1.	For installation of Fire Control and Observing	Stations
	Battery Construction #112,#113 and #	216.
2.	Place (Local Name) Montauk Pt.	
	Town East Hampton County Suffolk State	New York
3.	Owner: Name Reservation to be acquired by the U.	S. Gov't.
	Address (See Ref. #2)	•
4.	Area to be acquired 470 Acres	
5.	Site is: Developed x Undovel	oped
6.	Site is part of: Farm Summer	cstate
7.	Active shore lot development I Inactiv	···
8.		урс
	·	
9.	Is site contiguous to public road Yes	
10.	Is easement required for right of way No Lo	ength
11.	Is casement required for cable Yes Lo	ength
12.	Assessed value of land \$ Buildings \$	
	If no land, casement, or right-of-way is required, required in appropriate space below.	state, "none
13.	Estimated purchase cost of land and buildings	\$ See Ref. #2
ц.	Estimated cost of right-of-way	8
15.	Estimated :ost of cable casement	\$
16.	Estimated cost removal of utilities	\$
17.	Estimated cost of taking surveys	\$
18.	Estimated cost of legal transfer	8
19.	Total estimated cost of site	§ 270,000.
20.	Do you believe condemnation proceedings necessary	!
	REMARKS: (Refer to numbered items)	

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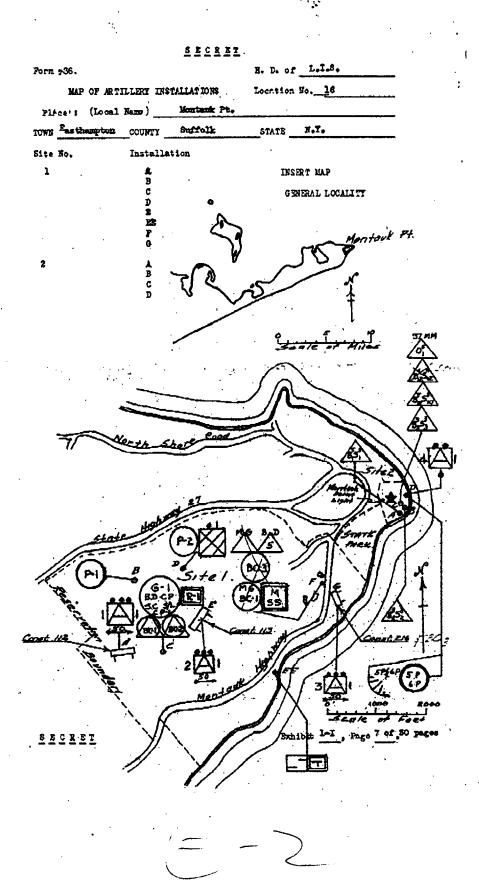
Exhibit 3-H, Page 6 of 13 pages

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Authority AND 735036
By Scu IMARA Date 10-8

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	Loention No. 16
	PRELIMINARY DATA FOR PROPOSED LAND ACQUIREMENT
1.	For installation of Fire Comtrol and Observing Stations
	Battery Construction #112,#113 and #216.
2.	Place (Local Name) Montauk Pt.
	Town Fast Hempton County Suffolk State New York
3.	Owners Name Reservation boile acquired by the U. S. Goy't.
	Addross (See Bof. #2)
4.	Area to be acquired 470 Acres
5.	Site is: Developed X Undeveloped
6.	Site is part of: Farm Summer estate
7.	Active shere let development I Imetive
8.	Does site include buildings Yes No. & Type
_	
9•	Is site contiguous to public rocd Yes
0.	Is easement required for right of way We Longth
1.	Is casement required for ceblo Yes Longth
2.	Assessed value of land \$ Buildings \$
	If no land, easoment, or right-of-way is required, state, "none required" in appropriate space below.
3.	Estimated purchase cost of land and buildings \$ See Ref. #2
4.	Estimated cost of right-of-way
5.	Estimated post of cable casement
6.	Estimated cost removal of utilities
7.	Estimated cost of taking surveys
.8.	Estimated cost of legal transfer 8
9.	Total ostimated cost of site . \$ 270,000.
0.	Do you bolieve condomnation proceedings necessary?
	REMARKS: (Refer to numbered items)

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Authority AND 735036
By JW NARA Gate 20-8

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Porn	#57. Annex I H. D. of L. I. S.
ZMPO	EARLION FOR DESIGN AND CONSTRUCTION OF INSTALLATIONS
	LOCATION NO. 16
	FLACE (Local Mone) Montauk Point
	Town Easthaupton County Suffolk State N. Y.
1.	What installations are to be located here!
	•
	See page 7a
z.	Number and type of structures to be constructed
1-	A Buttery Construction #112 2nd Concrete Numbels Station
10 1-	B Flotting-Switchboard Room (#112) 2-3 Concrete Manhole Station
1-	II Platfing Britabhas of Dam (1978 1-00 mile chilian
1-	E Battery Construction #113 Zammunition magazines, Powder
	P 2 Story Cottage 2 Ammunition magazines, Shell G Battary Construction #216 Searchlight shelter (8 Bay)
1-	G Battery Construction #216 Searchlight shelter (8 Bay)
5.	Type of site: Open Wooded X Hilly X Level
	Ledge Smooth Obstructions to sight Name
	UTILITIES INFORMATION . Give location and approximate distance to:
4.	Approach road Contiguous
5.	Proposed fire control cable but over land from vicinity Shagwong Pt.12,000
6.	Hearest commercial electric power Contiguous
7.	Delcotype generator required Power from Battery Magazines available
8.	Housing facilities necessary Contonment required - Bunks in stations
9.	Sewer facilities Will be constructed as part of reservation
10.	Type of water supply: City None Distance
	Well (estimated depth) Mater supply will be constructed as part of res
11.	Elevation of each construction site above mean low mater 1-A, 1-B, 1-R (75)
	1-C (100) 1-D (90) 1-F, 1-G (80) 2-A, 2-8 (80) 2-C (70)
	REMARKS: (Refer to numbered items). Include needs of AAIS AND ANS

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Authority AIND 735036
By Jou Hara Date (0-8)

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Form 57. Amas	x I	H. D. of L. I. S.
Location No.	15 (Montauk	Foint)
Installations:		
Site : 1	Batt	ery Construction #112
	AAMG	Platoon 1, Battery 1 (4-50 cal. Mg)
В	F.R.	Battery Construction #112
c	G-1,	BDOP, CP 1 SC S/L, Radio #1
	BC,	Sattery Construction #112
	BC,	Sattery Construction #118
מ	P.R.	Battery Construction #115
	PC S	/B Room
E	Batt	ery Construction #115
	AAMO	Platoon 2, Battery 1 (4-50 cal. Mg)
E	Tide	Station #1
	Cabl	Perminal
. T	BC,	Bettery Construction #216
	Metz	o and Signal Station #1
	. OP #	5, (Beach Defense)
	BC.	ALM Battery #1
G	Batt	ery Construction #216
	AAM	Platoon 3, Battery 1
Site 2 A	. B 5/	1 S 5/1, Battery Construction #112
. B	B 8/	2 S 8/2; Battery Construction #11S
C	3 5/	10 \$ 5/10, Battery Construction 111
	B 4/	12 8 4/12, Battery Construction #114
	B 5/	3 8 8/3, Battery Construction #216
	OP 8	/1, 57mm.
Þ		. Section 4, Eattery 1 (2-57mm. gums)
	SC £	/L #5 and 6 (P) and C #5 and 6

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Ethibit 2-I, Page 7a of 30 pages

Form \$38. Annex B.

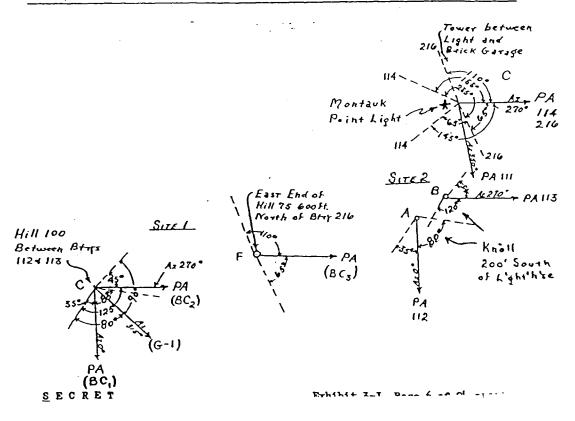


H. D. of L. I. S.

FIRE CONTROL INSTALLATIONS

LOCATION NO. 16	PLACE Montenk Point

	1	1	: Designation of	f : Height	
Site: Type	1	. Station	: Battery and	: of	
No.:	:Floor	:Assignments	: Armoment	: Inst.	& Tree.
1-C. 2 story cottage	Upper	G-1	Group 1	120'	A.Ì.
:	Lower (BC1	1 Const. #112. 2-	16#: 112'	A.I.
t	lower(I	z) BCS	Const. #113 2-1	6" 112'	A(I.
1-F 2 story cottage	Roof	OP	AA HG & Beach I	ef. 100'	
			Const. #216 2-6"	_	AI.
		1) Metro. & St		821	
:	•		AA HG ETRy.1	1 821	
2-A ! Manhole	1 One	1B 5/1 S 5/1	Const. #112 2-16	24 1 601	A.I.
2-B : Manhole	1 One	B 3/2 S 3/2	Const. #113 2-16	Su 1 601	D.P.F.
3-C : 3-deck steel	tover	t	t .	1	
(24' ground to					
f of lowest st	tibnQ	1	t	£	
	Roof	OP 5/1	37 mm.	125'	
£ .	!Upper	1B 4/12 S 4/	12:Const. #114 2	-16 *	D.P.F.
	Hiddle	B 5/10 S 5/	10 Const. #111 2	-16 [#] 108	D.P.F.
:	Lover	iB 3/8 S 3/,	3 1Const. #216 2	-6# : 100°	D.P.F.
:	t	1	:	· t	*



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T. D. MARKER

SECULET

SUPPLEMENT,

Auth:

TO

Initials

Date

MAR 7 1945

HARBOR DEFENSES

LONG ISLAND SOUND :..

- 1. This Supplement consists of two REGISTERED DOCUMENTS

 (Par. 2±, AR 380-5); one consisting of eight (8) Annexes
 and the second of six (6) Appendices.
- 2. The SHORT TITLE of these Annexes is HDLIS-AN-45, and that of the Appendices is HDLIS-AP-45, (Par. 2_T, AR 380-5).
- 3. These documents will be accounted for on 30 June and 31

 December of each year to Headquarters, Harbor Defenses of

 Long Island Sound, Fort H. G. Wright, New York (Par. 37,

 AR 380-5).
- 4. Prompt report will be submitted when these documents are transferred from one person to another (Par. 38, AR 380-5).
- 5. These documents supersede the document with SHORT TITLE as follows: CCA-AN-LIS.

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c. The following is a lies of the armount in the order of tactical importance:

Relative	Stry Gone 1221 in- Planet by
Importance	The state of the s
 :•	They torre (2) to the second
1	∆ica , ∦ 3
	Arris 42
2 .	ANTB.#2
	Same Contains
3	NOTE #1
7.3	
• • •	Biry Come #215
	om #s
. .	4677 75
6	Btry Cons #216
	25 30 10 20 20 20 20 20 20 20 20 20 20 20 20 20
1	Stry Dunn
8	Biry Cons #112
	Mary Come 277 Ann Change Silver
9	
70	Biry Cone #214
10	Btry Cons #214
22	Biry Cone #111
	a war and a second
12	Btry Maitland
• •	
13	Btry Benjamin
•	NETS #4
14	THE A
115	METS #6
. •	
16	BAST-Hoppard 90 700. 70. Bay anthropal
	and the second second
17	Rogith Hill Divy
••	Her Dille 90 mm Bty dullinged
18	the planting
19	to be the second
20	The planting
-	
21	TRANSPORT

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BY TW NARA Dire 10-8

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6. WAR RESERVE AND BATTLE ALLOWANCES OF ANABOLITION

a. The tabulation, on the next two pages, shows the allowances of ammunition with reference to the authority by which the allowances were established. It is believed that modern air defense will limit the duration, and frequency of bombardment of shore inestallations by hostile navel vessels, thus affording opportunity to replanish ammunition supplies from reserves or localities not exposed to the attack. The battle allowance is stored in the battery magazines in all cases. The remainder of the total War Reserve remains under control of the Chief of Ordnance in such Central Depot Storage as that office may designate.

- b. (1) All explosives in the Harbor Defenses of Long Island Sound are stored in compliance with the pertinent regulations (TM 9-1900).
- (2) immunition for Batteries Dann, Come 112, and Come 216 should be shipped via the Long Island R. R. to Montant, N. Y.

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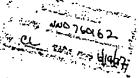
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_عد							·	
	•:	KETAINED F	ROJECT BATT	ERIES OF	THE MODE	RIVIZAT	ION PROCEL	X
TAG NO.	ro.	NAME OR CONS NO.	LOCATION	DO .A CAL. OF Gues	More	i. Moeni	COMPLE- N	THIBIT O. OF TELD F FIRE
1	16	112 · ***	.Camp Hero	2-162	Nevy Maidel		Complete	6-B-1
Š	16	Dunn	Camp Hero	2-16"	Navy Malini	144 03	Complete	6+B-2
. 3	16		Cemp Hero	2-6*	1903.42	M	Complete	6 -8 -3
4 ,	19	70 707 7 Dalliba	n whire parties IN Totay	2-3	1903	ر 1903 .	Complete	6-B-4
5	19:	217	Ft. Terry	2-6*	10.	M4 .1	nderinite	6-B-5
6	20	Maitland	It Michie	2-6"	1900		Complete	6-B-6
7	20 -	Benjamin	.Pt Michie.	-2-64 -2-64	1900	1900	Complete	6 -8- 7
8	21	215	Ft Wright	2-69/	190342	YO	_Complete	6-B-8
9.	21	Hoffman	Pt Wright	2-3	1902HI	1902	.Complete.	6-B -9
10	21	Noppes k	Ft Wright	2-3	1903		Complete	_
11	22	North HI	A Fishers Island	2+3 *	1903	1903	Complete	6-8-11
12	234	111	Fishers Island	2-16"	Kavy Melihi	М 72	*	6-B-12
13	· 23A	214	Fishers Island	2-6"	10 :	<u> 14</u> I	indefinite	6-8-13

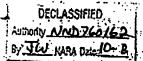
* Work on this battery was suspended pursuant to Memorandim, War Department, General Staff, WDDDS 8074, 20 November 1943, subject: "Curtailment of Seacoast Battery Program". Engineer work on the emplacement and magnifies had been completed. The guns and carriages are stored unwounted in the emplacement and magnines. Cost estimates for completion are included in the Appendices.

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RATURET OR CONSTRUCTION NO.	OF GUIS	CALTERR MICO TYPE	PROJ.	WAR RESERVE	BATTLE
112	2	16° Navi	2240#	3,00	200
Dunn (113)	2	16"-Navy	2240#	300	200
216.	<u>2</u>	6"-190312	HE-90# AP-105#	300 400	200 300
Dalliba -	2	3~1903	155	600	400_
217	2	6-au	HB-90# AP-105#	300 400	200 300
Weitland	2	6 "-1900	HE-90# AP-108#	300 900	200 600
Senjenda	. 2	6*-1900	HE-90# AP-108#	300 900	200 600
215	. 2	6-190312	H2-90# AP-105#	300 400	200 300
Boffman -	2	3-19020	162	600	-100
A STATE OF THE STA	18. j 18. i. <u>201</u> in	37=1903	BIS	600	400
111 (113 payentines)	2	160 Navy	- 2 240#	300	200
214	2	6* 101	HS=90# AP-105#	300 400	200 300

Authority for above: Letter, War Department, AGO, file AG 471 (28 Jan 44) CB-E-D, 11 February 1944, subject: "War Reserve Ammunition, Seacoast Artillery."

ANTE Betteries

Amminition allowances for form and 37mm AMTB weapons are revised and published at frequent intervals in current War Department directives, (letter AGO, AG471 (9 June 44) OB-5-DM, 10 June 1944, subject: "Day of Supply for Ammunition"). The latest directive is letter, Hq., Eastern Defense Communition for Ground Units of the EDC in the Continental United States."

All ammunition is stored in compliance with the provisions of TM 9-1900.

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LOC	SITE	Cancalda Fold	ACRES	ACQUERED	l ogsveret Starter	REF	PAGE
10.	NO.	RAME East Hempton	2.9.		PURPOSE	NO.	NO:
			C4.7/	1/11/43	FC Station	2	19
11	1Ý	Amagansott	0.92	3/1/43	FC Station	3.	19 .
13		Hither Hills	1.72	5/1/43	PC Station	4	19.
AEL	34	Ditch Plain	3.440	7/6/43	NC Station	5	19.
13Ä	14	Ditch Plain	1.377	8/21/42	PC Station	6	19
24	-	Prospect Hill	2.35	- ,-,-	Radar	7 .	19
15	1A		.83	5/1/43	NO Station	8.	19
16	1	Camp Hero 4	68.68	1/13/42	Military		
			irp).	1004	:: Reservation	19	20
16	2	Montauk Point	5.12	10/22/36	FC Station	10	20
16	2 .	Montauk Point	3.88	10/17/42	PC Station	11	20
17	••	Gardiners Island	1.65	4/23/43	Nº Station	12	20
•• .		Orient Pt., L.I.	.08	2/9/43	Power Cable Hut	13	20
19		Pt. Terry, N. T.	193.	2/24/97	Militery		
•				1.00	Roservation	14	20
•	•	Jane	647.	6/24/01	Ye Property		
20		Pt. Michie, N.Y.	17.	9/18/96	Military Reservation	15	20
21	· ·	Ft. H.B. Weight	226	8/8/98	Military Reservation	16	20
& 23		(Incl Mt Prospect	\a^2 - 20	4/14/08	Military		
~ 5			13:25	14/4/14!	Reservation	17	21
			69.30	4/18/08	* * .	18	21
			6.61	8/7/09	* *	19	21
		·	0.33	6/13/08	* *	20	21
٠.			1.10	6/15/17	Cable R/W	21	20
	* 945	loss	1.29	9/18/29	Military Reservation		
	1.3	Dogg Balle 110	10.3	4/17/37	# W	23	21
			0.2	11/17/42	W M	24	21
<i>:</i>			2.5	3/25/42		25	21
22		North Hill	18.37	4/6/18	~ >	26	21

E-3

BECRET

CAMP HERO, N. Y.

9. Approved proceedings of a Board of Officers convened 21 October 1940, dated 9 November 1940, and let to 7th Indorsements thereto (Secret). Land is purchased and possession under petition available 13 January 1942. Sixteen tracts of land were involved in this purchase.

MONTAUK POINT, L. I., N. Y.

- Request by Secretary of War, 27 August 1936; and in pursuance to authority contained in Act approved 27 August 1937; Pub. No. 351, 74th Congress, (49 Stat. 885, U.S. C. Tit. 40, Sec. 304a) two of the three parcels at Montauk Point, previously under the control of the Department of Commerce, were assigned to the War Department by the Director of Procurement, Treasury Department by letter dated 22 September 1936. The retained parcel is the one on which the Lighthouse is located. The three parcels were acquired by the Government in 1796.
- 11. 8th Indorsement, Chief Operations Officer, U. S. Coast Guard, file CG-RE-815, dated 17 October 1942, and 9th Indorsement from Vice Chief of Mayal Operations, file OP-30B10-VL (SC) NI-13/ND3 Doc 64261, Serial 0279130, to basic letter Hq. New England Sector, dated 18 July 1942, file 601, subject: "Land for Fire Control Structures at Montauk Point, N. Y.," gave approval for building tower in front of Montauk Lighthouse (on the third parcel mentioned above).

WHATE HILL, GARDINERS ISLAND, N. Y.

12. Letter from Chief of Engineers, CE 601.53, (Gardiners Island, HDLIS, N. Y.) SPEIR, dated 25 April 1943. Lease also includes 0.506 acres for cable R/W and 2.26 acres for access road R/W. An additional 2:1 acres in the vicinity of the fire control station has been leased for housing.

ORIENT POINT, LONG ISLAND, N. Y.

13. 2nd Indorsement by Secretary of War, dated 9 June 1942, file 601.1, to basic letter from Chief of Engineers, Subject: "Acquisition of Land, Orient Point, Long Island, N. Y." Land is purchased.

FORT TERRY, N. Y.

14. The records on this purchase are in the Office of the Judge Advocate General. The fort was named by War Department General Order No. 134, 1899.

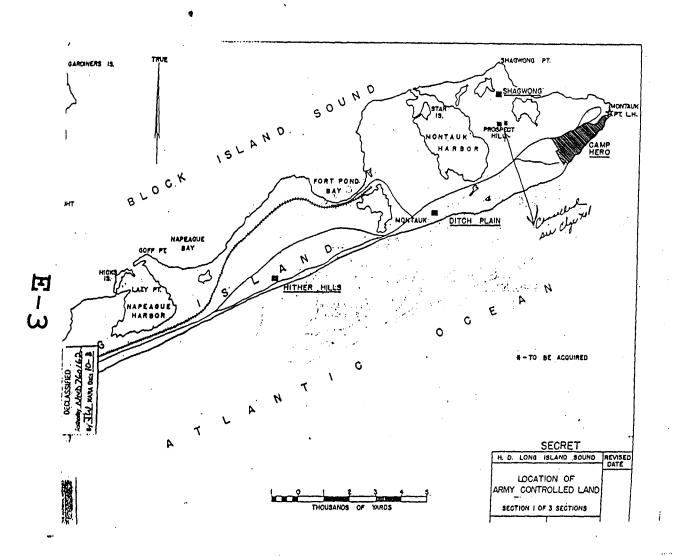
FORT MICHIE, N. Y.

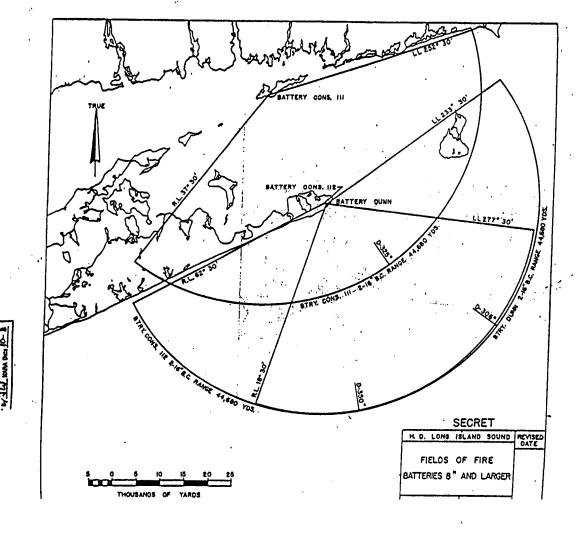
15. Request from Secretary of War to Treasury Department, dated 15 September 1896. Originally purchased by Treasury Department in 1803.

FORT H. G. WRIGHT, N. Y. (including MOUNT PROSPECT).

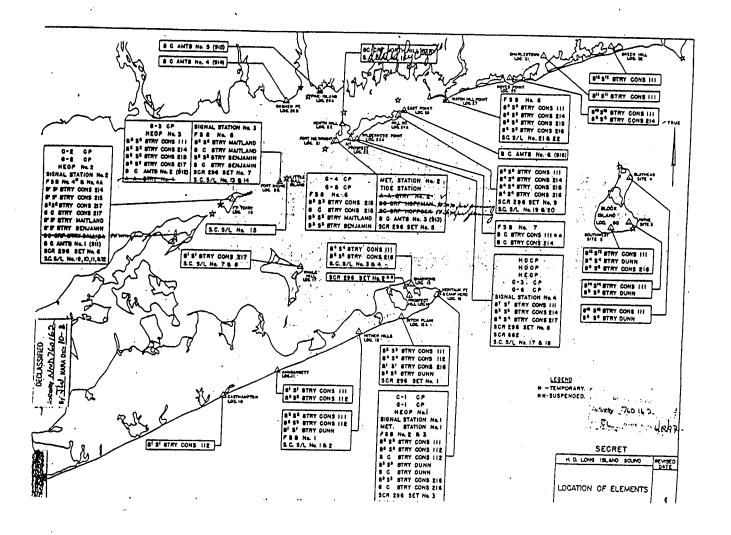
(All land at Fort Wright, except cable right of ways are government owned.)

16. Decree of condemnation requested by Secretary of War versus Edmund M. Ferguson.





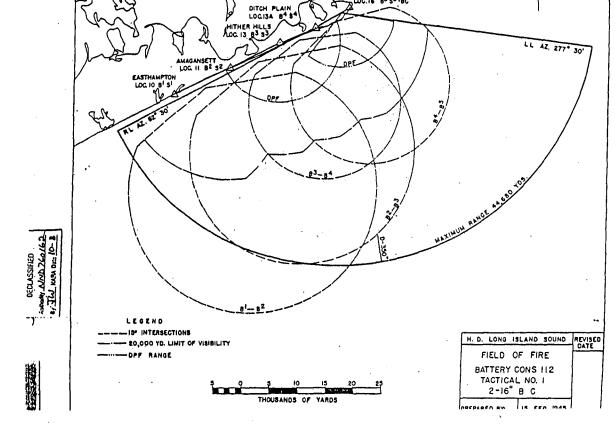
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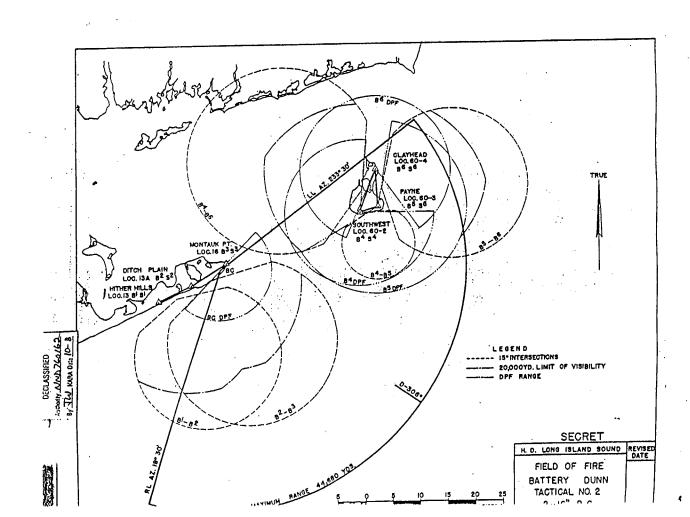
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			BATTERY #1 (Co	ns 112) Camp Hero,	.Y.
	16	1A	D P - Gun #1	63649.99	48131.67
	16	10	вс	64090.06	48158.22
	10	1.	B1 B1	33797.84	33524.96
	11	1.4	B2 82	43849.42	38157.75
	13	1A	B3 S3	62725.98	42431.60
	13A	3A	B4 S4	58939.60	45065.71
	16	1J	B5 85	65010.57	48362.63
\mathcal{C}	13A	5A	SCR 296 #1	58949.57	45081.73
				1000 000 000	
	·	· ,	BATTERY #2. (DU	NN) Camp Hero, N.Y.	
	16	18	D P - Gun #1	64274.88	48295.07
:	16	1C	вс	64094.30	48160.06
,	15	1B	B1 S1	52783.77	42471.67
	13A	1A	B2 82	59053.81 59078.72	45289.04
	16	2B	B3 S3	65600.27	49102.87
•.	60	2B	B4 S4	89581.43	58553.22
-	60	3C	B5 S5	92723.91	69312.57
	60	4A	B6 S6	92850.44	66238.74
	16	111	SCR 296 #3	64256.53	48849.26
			3		
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	T.A.	ORIEN	TATION DATA	
FOC.	SITE	STATION	COORDII	
	-		Control of the second	Y
· -	•	BATTERY #2 (Co	as 112) Comp Hero,	
18	1A	DP - Gar 1	63649.99	48151.67
16	ic	B C	64090.06	48168.22
10	1A	B1 81	58797,84	
11	<u>n</u>	B2 52	32.770	38524.96
	\$	at to	43849,42	38157.75
13	1 4	B3 83	52725.98	42451.60
18A	3A	B4 S4	58939,60	45065.71
16	IJ	B6 85	65010.57	48562.63
13A	35A	SCR 296 #1	58949.57	45081.73
			1000 to 1400	
		BETTERT #2 (DU	Mf) Camp Hero, N.Y.	
15	1R.	Ď P - 0m #1	64274.88	48295.07
18	1C	BC	64094.50	48160.06
15	18	B1 S1	52783.77	42471.67
18Á	14	B2 82	59053.8/ 50078.79	763273122
16	23	B3 85	65600.27	49102.87
60	2B	B4 S4	89581.43	58553.22
60	3C	BS 55	92725.91	
60	44	B6 S6	92850.44	59812.57
				66238.74
16	111	SCR 296 #5	64256_53	48849.26
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₩.		NO.	•		TACT	_	.,		>	
LOC. NO.		STA.	ELEV.	H. L	NO AND TYPE OF EG. INSTR	ARC	OF W	MEN	TYPE OF CONS.	COMB WITH STA.
16	10				DPF leval	-		4	Cottage	C=1
13	18	B1 81	123	138	AT WZAI	225	8	6	Cottage	B2282
134	14.	B2 82	68	85	AT MSV1	243	40	6	Cottage	
16	23	B3 83	72	731	AI M2AI	238	27	<u>`</u> 6	Manhole	
60-2	23	B4 84	150	166	1PF 182A1	271	185	. 6	Cottage	21321 1221
60-3	.30	B5 85	185*	201	DFF M2A1	189	62	.6	Cottage	B1281
• •		•		· . · .						B9 89
60-4	48	B6. 86	140'	168*	DPF N241	24	325	6	Cottage	39,39
3 3.1 3		73701				13.1°				B3 83
,		1,5,5%		77.			:			
	: - , :::									
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RASE LINE DATA FOR STATIONS LISTED ABOVE

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то	AZIMUTH	LENGTH		FROM	ΤQ	AZIMUTH	LENGTH
32	246.27	6,876.39	೯ ೮೫೬				
B5:	256.42	3,232.92	(37) 2 (35) 2 (4) (4) (4) (4) (4) (4) (4) (4) (4) (4)				
26			í	1	42		·.
B6.	181.05	6.927.33	Mr. 4-17: 377-71-13-	47			•
					٠		
	1.33						,
	B2 B3 B5	TO AZIMUTH B2 246.27 B3 239.35 B5 256.42 B6 203.04	TO AZIMUTH LENGTH B2 246.27 6,876.39 B3 239.35 7,580.22 B5 256.42 3,232.92 B6 203.04 8,351.86 B6 181.05 6.927.33	TO AZIMUTH LENGTH B2 246.27 6,876.39 B3 239.35 7,580.22 B5 256.42 3,232.92 B6 203.04 8,351.86	TO AZIMUTH LENGTH FROM B2 246.27 6,876.39 B3 239.35 7,580.22 B5 256.42 3,232.92 B6 203.04 8,351.86 B6 181.05 6.927.33	TO AZIMUTH LENGTH FROM TO B2 246.27 6,876.39 B3 239.35 7,580.22 B5 256.42 3,232.92 B6 203.04 8,351.86 B6 181.05 6.927.33	TO AZIMUTH LENGTH FROM TO AZIMUTH B2 246.27 6,876.39 B3 239.35 7,580.22 B5 256.42 3,232.92 B6 203.04 8,351.86 B6 181.05 6.927.33

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- 14 -

NO.	NO.				LYPE OF	. V 10	. 11	MEN	OF	WITH
110.					F.C. INSTR.	LL	RL		CONS.	, STA.
16	1¢	BC	108'	119'	DPF M2A1	223	43	4	Cottage	C-1 G-1 BC-1
13	· 1B ·	B1 S1	123'	138	AI M2A1	225	8	6	Cottage	$B_{12}^2S_{12}^2$
13A	1.4	B2 S2	68	85	AI M2A1	243	40	6	Cottage	
16	2B	B3 83	72	73'	AI M2A1	238	27	1	Manhole	
60-2	2B	B4 S4	150'	166	DPF M2A1	271	185	6	Cottage	B13s13
60-3	З¢	B5 S5	185	201	DPF M2A1	189	62	6	Cottage	B ₁₂ S ₁₂
	-							ļ.		B9 89#
60-4	4A	B6 S6	140'	168	DPF M2A1	24	325	6	Cottage	B ₉ S ₉ #
		79503								B ₃ s ₃ #
		3.37								
, t										
		112								
# P	ertain	s to H	D. 1	arya	gansett Ba	y	.			
<u> </u>				1						

BASE LINE DATA FOR STATIONS LISTED ABOVE

FROM	то	AZIMUTH	LENGTH	•	FROM	то	AZIMUTH	LENGTH
B1	B2	246.27	6,876.39					
B2	В3	239-35	7,580.22					
В4	B5	256.42	3,232.92					
B4	в6	203.04	8,351.86					
B5	в6 /	181.05	6.927.33	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	+ + + . +			
		1	()					

		HATTERY #3 (Co	ns 216), Camp Hero,	N.Y.
18	10	D P - Gun #1	65233.56	48551.79
16	1F	вс	65206-41	48579.00
13A	3A	B1 S1	58944.52	45069116
15	14	B2 S2	61490.98	49601.94
16	2C	B3 83	65627.96	49158.41
24A	1G	B4 S4	58709.97	\$5182.81
27	2A	B5 S5	65582.80	77423.62
60	2A	B6 S6	89211.44	58417.98
16	11	8CR 296 #4	64614-65	48851.62
			mm for planning	
		BATTERY #4 (De	111bg), Fort Terry,	N.Y.
19	10	DP - No. 1 Gum	37618.87	63580.79
19	10	BC-CFF	37583.90	63646.75
		/		
	·	BATTERY #5 (Co	ns 217), Fort Terry	N.Y.
19	17	DP - Gun #1	37621.78	63719.60
19	lv	вс	37588.63	63746.61
177	1B	Bl Sl	44438.56	52882.23
19	18	B2 S2	37508.86	63721.22
20	1E	B3 83	41628.89	65184.29
23	11	B4 S4.	51730.73	71658.88
19	17.	SCR 296 #6	37482.44	63607.47
	- /			
				,
		\rightarrow \(\frac{1}{2} \rightarrow \frac{1}{2} \ri		

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Authority NND 760162
By TW KARA Data 10-8

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	C1==		NTATION DATA	
0C. D	SITE	STATION	COORDII	NATES
			X	Y
		BATTERY #8 (0	ons 218), Camp Hero,	H.Y.
6	16	DP - Gum 👫	65233.56	48551.79
6	ır	ВС	65206-41	48579.00
BÅ	34	B1 81	58944.52	45069116
5	1A	B 2 B2	61490,98	49801.94
6	20	B8 88	65627.96	49158.41
44	16	B4 84	58709.97	\$5182.81
7	24	B5 8 5	65682.80	77423,62
0	2A	B6 86	89211.44	58417.98
6	11	BCR 296 #4	64614.55	48851.62
			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
		BATTERY #4 (2	elita), Fort Terry,	H.Y.
g ·	10	DP - No. 1 Qum	87618.87	68580.79
9	10	BC - CT 9	87585.90	63646.75
!		BATTERY #6 (C	ous 217), Fort Terry	N.Y.
9	17	DP - Gon #1	87621.76	65719.60
9 ,	17	3 C	87588.53	63746_61
7 7.	18	BJ 81	44438.56	52882.23
9	18	B2 82	87508.86	63721.22
0	18	B\$ 83	41828.89	65184.29
3 ;	11	B4 54.	51750.75	71658.88
Q	ĮΥ	SCR 296 #6	87482.44	65607.47
`				
		1.00		
			1	

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Authority NND 760162 By TW NARA Data 10-8

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LOCA	TION	MD	234	. 3	TACT	O	EIR	E EX	HIBIT 5	-B-13
LOC.	SITE	STA.	ELEV	H, L	NO. AND	ARC	OF EW	MÊN	TYPE	COMB
23A	12		10.00	7.7	H IR or	_		_	Cottage	STA.
19	100	B1 31			DPE M2A1				Kanhole	
20	19	82 82		- 7	AI MPAI	f		ľ.	2 Story	B ₆ ² S ₆ ²
23:	2016	1	1 1		Al M2A3			; *·	Manhole	
24A 27		}	1		AI M2A1 AI M2A1		11.1		Manhole Cottage	5 s
29		∤ . • ∣			197 NOA1					
		xáC ≟		· <u>· · · · · · · · · · · · · · · · · · </u>					5 75 15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		Zisati si ndesisi eesa see		.679 545		100 200		A	(Martine) is sufficient in its	
	V N.		7	\$5.						
E	7.	. 19	ay be	self	contained	Faz	5 0 2	nger		
	1.0	254.78		7-7					\$-\$y. j.,	
		249,84			7					

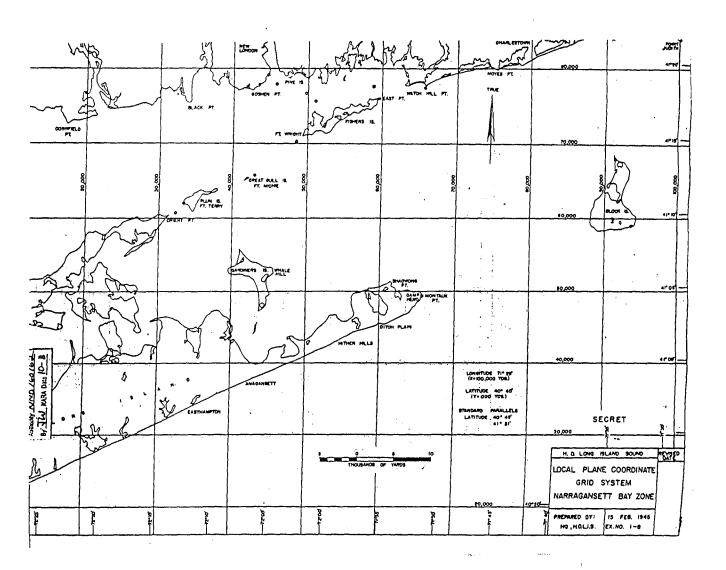
BASE LINE DATA FOR STATIONS LISTED ABOVE

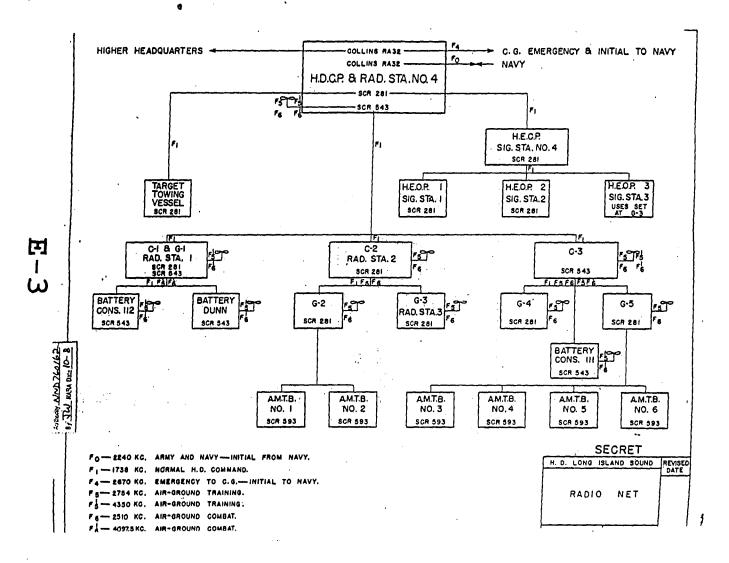
FROM	TO	AZIMUTH	LENGTH		FROM	Œ.	AZIMUTH	LENGTH
B2.	B2	252.48	7,256.82	T6,0 E				
B2	В3	237.65	12,235.09	2,				
B3	B4	242.86	7,721.46					} } `.
B4	B 5	251.78	7,272.22					
B5	В6	249.84	9,996.04					
					191.7 201.13			·
	• • •	2.1.2	g.237	- 6.0				
		,						

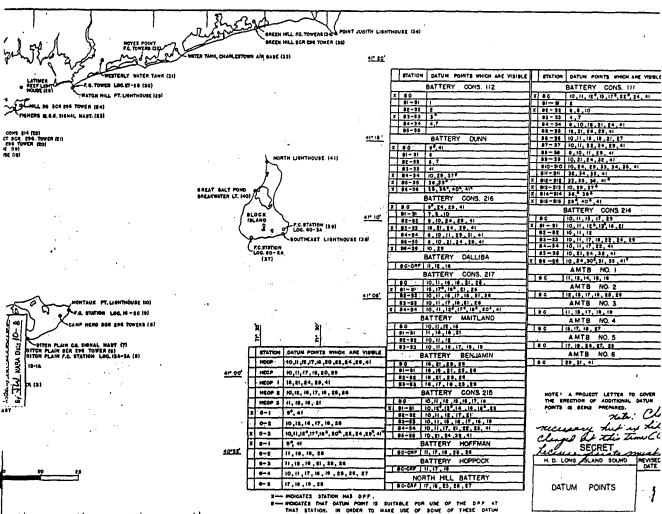
NO.	NO.		· ·		F.C. INSTR	LL	RL	WEN	OF CONS.	WITH STA.
23A	1E	вс	541	601	HF Ml or M2*	240	60	4	Cottage	
19	1GG	B1 S1	9 3'		DPF M2A1	245	30	6/	 	
20	1 B	B2 S2	18	341	AI M2A1	270	55	6	2 Story	B ₆ ² S ₆ ²
23		B3 83	801	821	AI W2A1	230	109	6	Manhole	
24A	18	B4 S4	72'	741	AI M2A1	265	/50	6	Manhole	
27	2A	B5 S 5	22'	321	AI W2A1	259/	50	6	Cottage	B ₃ S ₃ 5
29	1A :	86 S 6	65'	114!	DPF-M2A1	300	60	-6	Tower	
;		ACT, ju				1 10/16	ų,	+		
1	7; 	2.000 10 12.000 10.000		्रहेडी र सहस्र		fo				
23	32.	38.25		55.	7/					-
- 1	* *.	1.7.60		7.		j				<u>.</u> .
51.4	74	24 * .3 M	ay be	Bel?	contained	ran	go f	nder		
7.7	55	275.78	•	1	12					
1 65		249.54		/) 1					
				•						
			/							

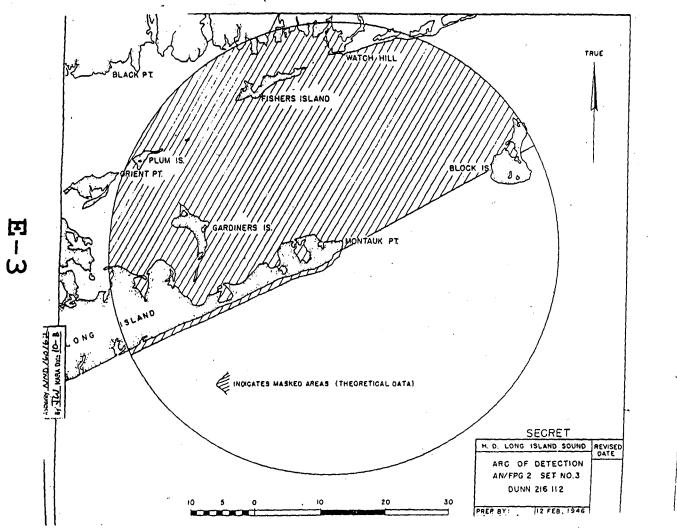
BASE LINE DATA FOR STATIONS LISTED ABOVE

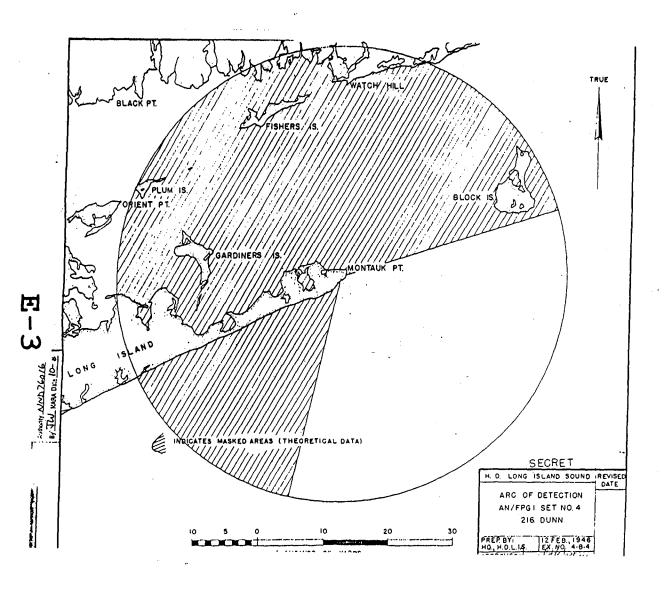
FROM	то	AZIMUTH	LENGTH		FROM	то .	AZIMUTH	LENGTH
Bl	B2	252.46	7,256.82	iner'				
B2	В3	237.65	12,235.09	- 25 -		•.		
В3	B 4	/242.86	7,721.46			-		
B4	B5/	251.78	7,272.22	: .		<u>.</u>		
В5	B 6	249.84	9,996.04					
).								

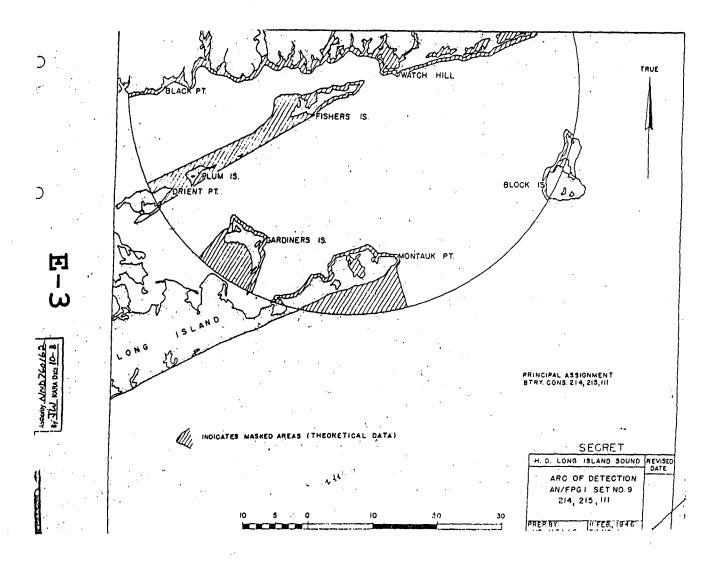


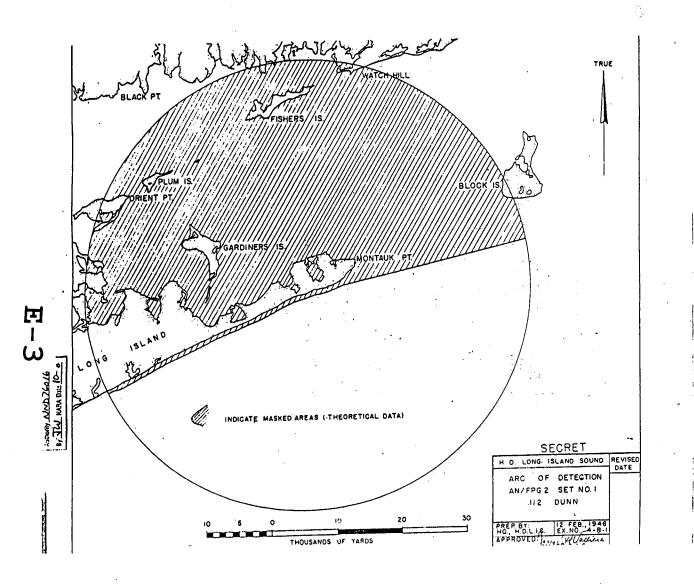


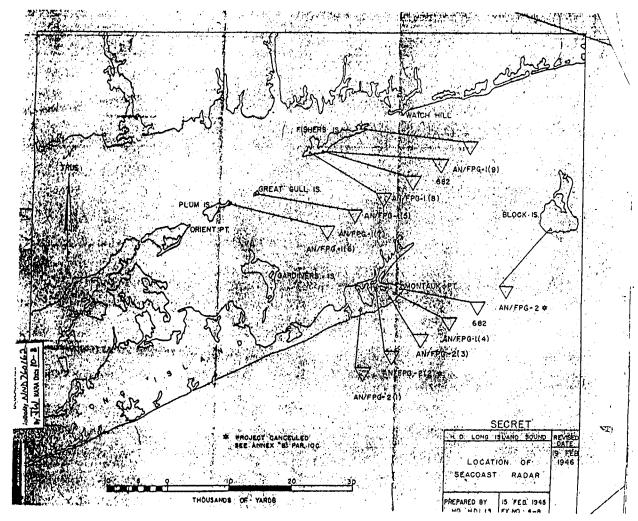




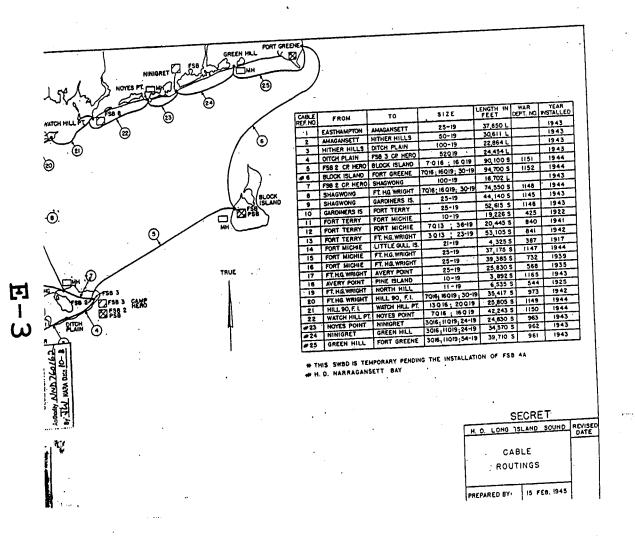


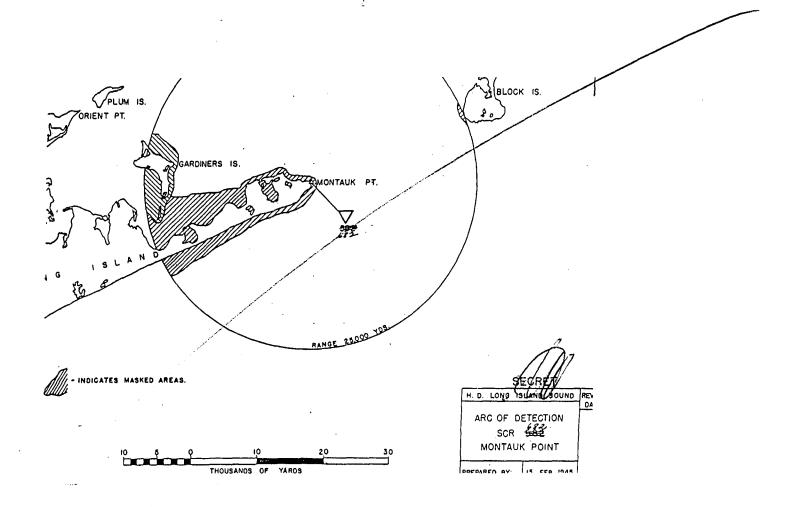


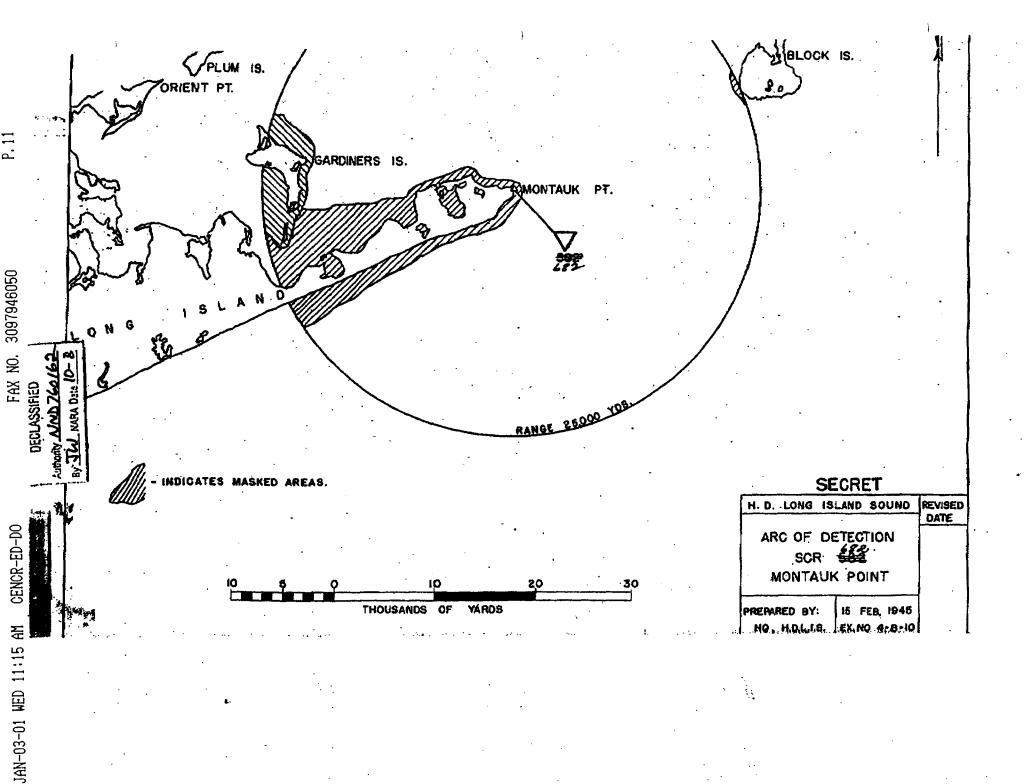


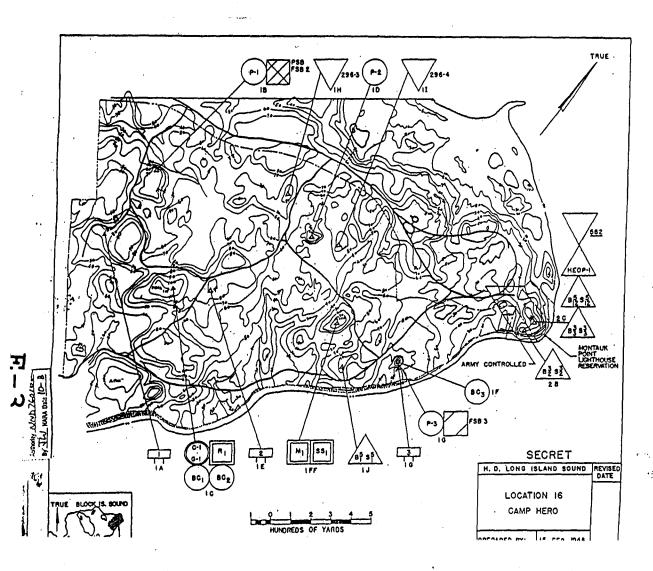


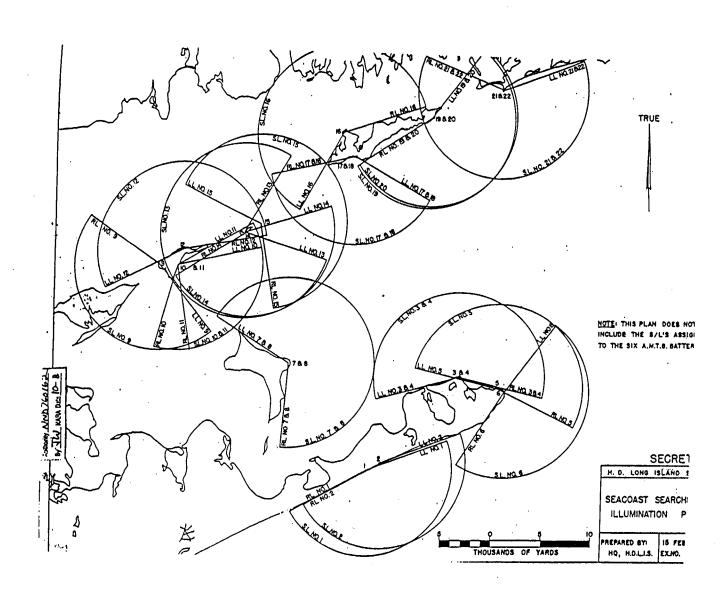
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FAX NO. 3097946050 DECLASSIFIED Authority NND 760/62

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ANTIAIRCRAFT AUTOMATIC WEAPONS

Tabulation by battery, for allowance of antiaircraft automatic meapons as authorized by T/O & E 4-260-1.

CALIBER	NO. OF			AMOTUN	ITION
	GUIS	BATTERY.	100.	BATTLE ALLOWANCE	STORAGE
40mm	4	Cons 111	254	See para-	The place of
40mm	4	Cons 112	16	graph lla	storage in all
40mm	4 ,	Dunn	16	in this	cases will be at
40mm	. 2	Cons 214	234	Annex.	the Battery to
40ma	. 2	Coms 215	21		which the auto-
40mm	2	Cons 216	16		matic weapons are
40mm	Z	Cons 217	19		rasigned, except
40mm	2.	Maitland	20		for the rounds of
40mm	2	Bonjamin	20	•	ammunition actual-
		ŧ.	,	•	ly at the guns.

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NND 738036
BY JW 10-8

5. (Continued)

ANTIAIRCRAFT AUTOMATIC WEAPONS

Tabulation by battery, for allowance of antiaircraft automatic weapons as authorized by T/0 & E 4-260-1.

CALIBER	NO. OF			NUMPLA	ITION
	Guns	BATTERY	roc.	BATTLE	
	·		/	ALLOWANCE	STORAGE
40mm	4	Cons 111	23 _A	See para-	The place of
4 Onun	4	Cons 112	16	graph lla	storage in all
40mm	4	Dunn	16	in this	cases will be at
40mm	. 2	Cons 214	23A	Annex.	the Battery to
40mm	2	Cons 215	21		which the auto-
40mm	2 /	Cons 216 -	16	-	matic weapons are
40mm	2 /	Cons 217	19	•	assigned, except
40mm	,2 ,	Maitland	20	•	for the rounds of
40mm	/ 2	Benjamin	. 20		ammunition actual
			1		ly at the guns.

5. (Continued)

ANTIAIRCRAFT AUTOMATIC WEAPONS

Tabulation by battery, for allowance of antiaircraft automatic weapons as ...thorized by T/O & E 4-260-1.

CALIBER 1	VO OP	·	AMMUNITIO	N N
CALLDAN	GUNS	BATTERY	LOC. BATTLE ALLOMANCE	STORAGE
-50MG	4		20 See pare	The place of
-60MG		<u> </u>	2 graph 11a	storage in all
• 50MG	4	Cons 111	23A in this	cases will be at
.50 u g	4	Cons 112	16 Annex.	the Battery to
.50MG	4	Dunn	16	which the auto-
.50MG	2	Cons 214	23A	matic weapons are
-50MG	2	Oons 215	21	assigned, except
. 50MG	2	Cons 216	16	for the rounds c
• БОИС	2	Cons 217	19	ammunition actua
• 50MG	2	Maitland	20	ly at the guns.
.50MG	2	Benjamin	20	
.50 ^M G	2 /	Palliba.	19	
.50MG	2	90 mm. Hoffman	21	
.50MG	2	Hoppock	21	
√50¥G		North Hill	22	-
.50MG	. 4	AMTB #1	19	
.50MG	4	AMTB #2	20	
.50MG	4	AMTB #3	21	· ·
.50MG	4	AMTB #4	26D	
.50MG	4	AMTB#5	26A	
.50MG	4	AMTB #6	25	•

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Authority NND 760/62
By TW KARA Date 10- B

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5. (Continued

ANTIAIRCRAFT AUTOMATIC WEAPONS

Tabulation by bettery, for allowance of antiaircraft automatic meapons as ...thorized by T/O & S 4-260-1.

ALIBER	NO. OF				
	CUBS	BATTERY	LOC	ALL CHANCE	STORAGE
.SOMG			20	See para-	The place of .
50VC			-2	Staby 130	storage in all
50MG	4	Cons 111	23A	in this	cases will be a
50 0 6	4	Cons 112	16	Annez.	the Battery to
. 50MG	4	Diam.	16	•	which the auto-
5000	2	Coms 214	28A		matic weapons a
-50MG-			21	• .	assigned, except
. SOMG.	2	Cons 216	. 16		for the rounds
50¥G	2	Come 217	19		ammition actu
.50¥G	. 2	Maitland	20		ly at the gums.
50 4 G	2	Bon jenin	20	•	
50 4 G	2	Politice.	19		
.50003	2	90 mm. Hossies	21	•	•
. 60%G	2	90 mmm. Hoppook	21	•	
-50 16 -		Sorth Hill	33	•	
.50MG	4	AMTB #1	19		
.50M3	4	AMTB #2	20		• • •
.50MG	4	AMETE #5	21		
.soug	.4	ANTB #4	260		
.50 M G	4	AMTB #5	264	, · ,	
. SONG		AMER #6	25	• •	·

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By JCM NASA Data /0-8

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Form #29. Amost B

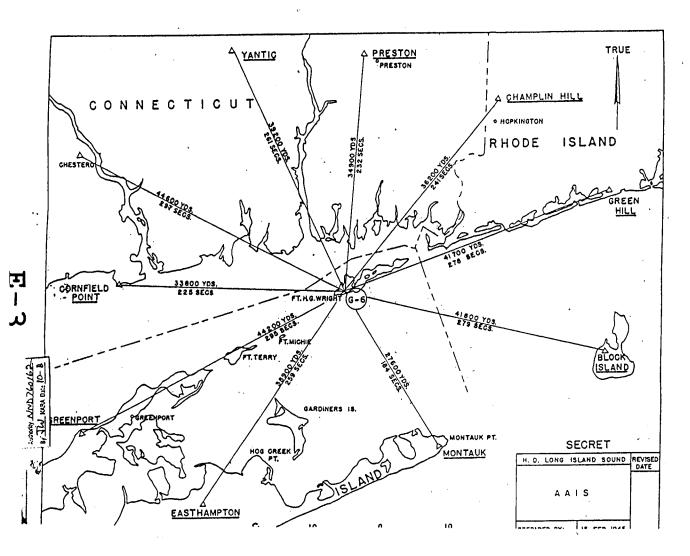
. D. of L. I. S.

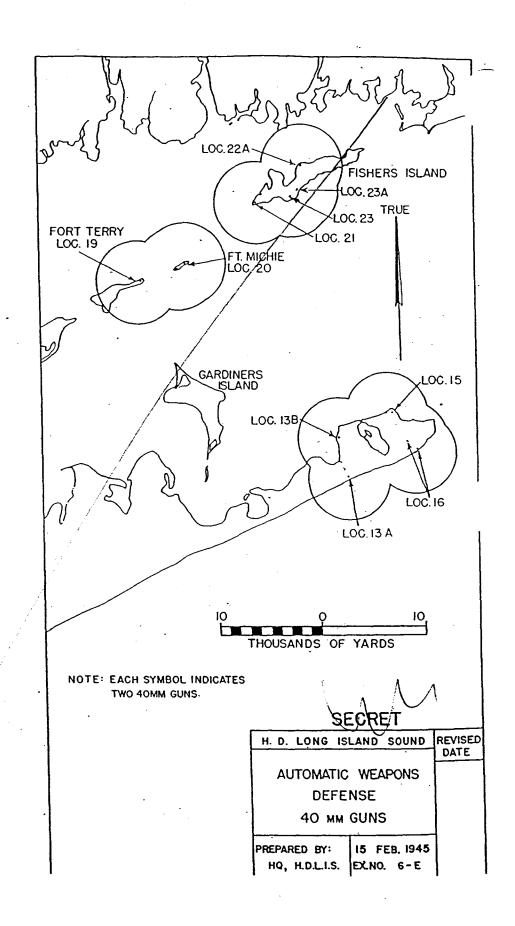
ANTIAIRCRAFT AUTOMATIC MEAPONS

The authorized antiaircraft automatic weapon defense is disposed as shown in the following tabulation and the indicated exhibits.

Cali-No. of: Loc. No. :Site: : All. : Place of : On : R ber : Guns : and Place : No.:Exhibit: Asm. : Storage : Hand : qui 16 50Cal. 4		L.	itton	mu	ATTO	"	:Battle			,		7	,	
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4 Wt.Prospect 1-P 1-I 28,800 Hamilton P.I. 234 4 Wilderness Pt 1-I 28,800 Hamilton P.I. 28 4 Hear 114 1-A 1-I 28,800 Watch Hill				:	Hamilton	;	28,800	1-1	1-N	21 Tright	Ft.	4 :	:	Ħ
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NOTE 1. Authority Table "A" Secret Letter W.D.,	•				bter W.D.,	La	Secret :	.e "A"	y Tabl	thorit	l. j	1017E 3	3	

OCCA, file No. 660.2, dated Oct. 25, 1940.

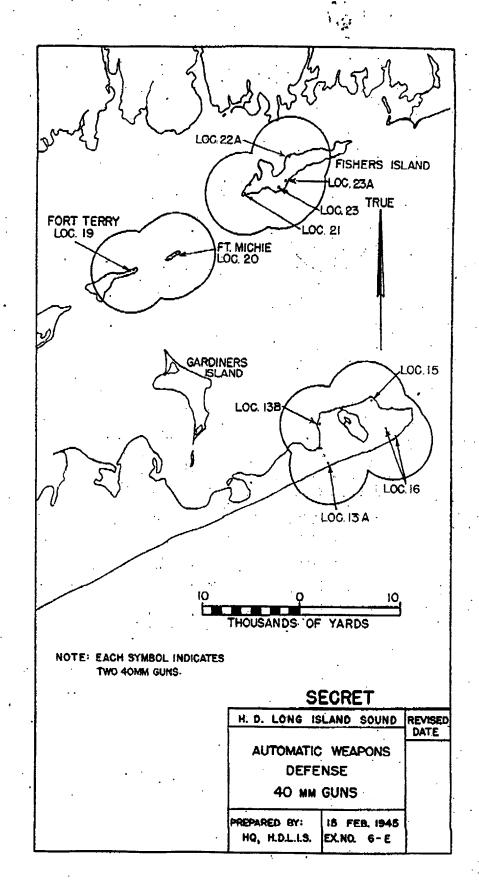




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DECLASSIFIED Authority NND 760162
By TW NARA Data 10-B



DECLASSIFIED
Authority NND 760/62
By TW NARA Date 10-8

SECRET

GAS DEFENSE

1. REQUIREMENTS

- a. This project contemplates the use of the collective protector unit Mi or later model, having a rated capacity of 200 cubic feet per minute. Three cubic feet per minute per person not physically active, and ten cubic feet for personnel of plotting rooms is required. Therefore, one unit will supply a maximum of 20 persons actively engaged or 67 persons not active. There is the further condition that one unit will supply the necessary alight positive air pressure to a room of no more than 10,000 cubic feet capacity.
- b. The basis for providing reserve cannisters is two (2) per installed cannister. One half of these reserve cannisters are carried in local storage and one half are stored by the Chief of Chemical Warfare Service, earmarked for the harbor defense. The life of a cannister is 40 hours.
- o. For personnel outside of gas-proofed rooms, reliance is placed on gas masks, protective clothing and the employment of trained equads of men using chloride of lime to neutralize mustard gas. This personnel and organisational equipment is outside the scope of this project.
- d. Attack by gas must ordinarily be carried out by airplanes since otherwise the expenditure of naval summittion would be excessive. The fire of antiaircraft guns and machine guns will be a deterrent to effective gas attack.
- e. In this harbor defense, a strong breeze prevails much of the time and periods suited to attack with nonpersistent gas are infrequent. Attack with persistent gas is the chief concern.

1. REQUIREMENTS

- .

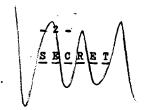
a. This project contemplates the use of the collective protector unit M or later model, having a rated capacity of 200 cubic feet per minute. Three cubic feet per minute per person not physically active, and ten cubic feet for personnel of plotting rooms is required. Therefore, one unit will supply a maximum of 20 persons actively engaged or 67 persons not active. There is the further condition that one unit will supply the necessary slight positive air pressure to a room of no more than 10,000 cubic feet capacity.

b. The basis for providing reserve cannisters is two (2) per installed cannister. One half of these reserve cannisters are carried in local storage and one half are stored by the Chief of Chemical Wayfare Service, earmarked for the harbor defense. The life of a cannister is 40 hours.

o. For personnel cutside of gas-proofed rooms, reliance is placed on gas masks, protective clothing and the employment of trained squads of mea using chloride of lime to neutralize mustard gas. This personnel and organizational equipment is outside the scope of this project.

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much of the time and results suited to attack with nonpersistent gas are infrequent. The with persistent gas is the chief a perm.



		GAS DEFENSE OF	ECF	BFROOF SHI	ELTERS		
LOC NO.	SITE NO.	PURPOSE OF STRUCTURE	MEN	CAPACITY CU. FT.		INST. CANN.	RES. CANN.
16	1.8	Latrine-Btry Cons.		2050	1	1	2
16	18	P-1, FSB #2, and PSB	26	18000	4	4	8
16	10	P-2	22	18000	4	4	8
16	1E	Latrine-Btry Dunn		2050	1	1	2
16	16	P-3, Latrine-Btry Cone. 216, and FSB #3	22	5600	2	2	4
19	1X	FSB #4A, P-5, and Latrine-Btry Cons. 217	22	5600	2	2	4
20	10	P-6	16	2000	1	1	2 .
20	1P	P-7, FSB #5 and PSB	25	15150	3	3	6
21.	18	P-9, and Latrine - Btry Cons. 215	18	5600	2	2	4
21	10	FSB #6 and PSB	10	33400	. 4	4	8
23	18	HDCP, C-3, & G-6 CP	64	19000	2	4	8
23A	10	Latrine-Btry Cons.		2050	1	1	2
23A	2.6	P-12 and FSB $\frac{\#}{\pi}$ 7	26	18000	4	4	8
23A	1F	P-13 and Latrine- Btry Cons. 214	18	5600	2	2	4
27	· 2A	FSB #8	4	1050	1	1	2

CONSOLIDATED SUMMARY OF BATTERY INSTALLATIONS

HARBOR DEFENSES OF LONG ISLAND SOUND

1	2	3	4	5	6	7	8	9
BATTERY W/Data Compu	OBS. STA. 90'/	OTHER OBS. STA. 126'/	OBS. STA. NOT INCL. IN 2 & 5	BC STA.	SPOT- TING STA.	MAGA- ZINES	BATTERY POWER PLANT	8CR- 296
Cons 112	0	J	4	1*	Б	2	1	1
Dunn	2	2#	2	1*	6	2	1	1
Cons 216	2	0	4	1*	. 6	1	1	1
Cons 217	2 -	0	2	1	4	1	ı	1
Cons 215	1	,0	4	· 1	5	1	1	. 1
Cons 111 **	ı	- 4	10	1*	15	2	1	1
Cons 214	2	0	4	ı	6	1	1	1

^{*} These stations have an HI over 74 feet.

^{**} Work on this battery was suspended. See note (*) to paragraph 5a, Annex A.

[#] One of these stations is not authorized a DPF because the area that would be covered by such an instrument is too small.

ANNEX B

8. DATUM POINTS.

a. For the most part, the datum points for this harbor defense consist of lighthouses or towers. It will be necessary to erect some datum points for stations on the south side of Long Island and on Block Island. These will be covered by project letters at a later date. Since there are no visible islands south of Long Island all datum points in that area will be on Long Island itself. Exhibit 3-B shows the location of the present datum points and has a tabulation showing the stations which use these datum points.

b. Since many of the depression position finders are located in stations from which datum points that can be waterlined can be seen only when the visibility is listed as unlimited, or are beyond the maximum range of a DPF, it will be necessary to use the procedures outlined in Appendix III, FM4-15, dated 5 November 1943.

9. LAND ACQUISITION.

The parcel at Prospect Hill, Long Island Loc 14 had been leased but the lease was cancelled.

10. RADAR EQUIPMENT.

a. A tabulation of the fixed seaccast radar equipment is shown on the next page. All sets except number 2 have been installed.

b. Exhibits 4-B-1 to 4-B-12 inclusive show an approximate arc of detection at the ranges which have been found for each set for which operating data is available. These ranges are based on the targets which are normal to this area. These are, in most cases, small freighters or tankers. Ranges on destroyers, transports, cruisers or battleships is not available from operating experience.

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AUTOMY NND 760/62

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10e

RADAR POUIPMENT

5CR 296

AUTHORITY -- T/O & X 4-260-1, dated 11 April 1944

NO.	LOC NO.	BITE NO.		<u>assicnummes</u>	ADDITIONAL	GROUND FLEVATION	EFFECTIVE ANTENNA REIGHT	EXPIBIT
1	134	3A	112	Dunz	1. The second of	821	186'	4-B-1
2	14	34	111	112	216	126'	234*	4-B-2*
3	16	12	Doma	216	112	81'	1871	4-B-3
4	16	11	216	Dunn /		72'	1781	4-B-4
5	21:	117	Benjamin	215	214	211	127'	4-B-5
6	19	·13	217	Maitland	Benjamin	751	1811	4-B-6
7	20	18	Maitland	Benjamin	217	7141-	120,	4-B-7
8	23	16	215	214	217	100'	206*	4-B-8
9 ·	24Å	16	214	215	1111	901	1961	4-B-9

The following set of the HD of Marriagnment Bay has an additional assignment for a battery in this HD.

60-2 109#

111

145

252*

-B-12

Battery in HD Narragement Bay

*Due to the suspension of work on Battary Coms. 111 and Battery Coms. 109 as explained in Annex A, par. 5a, the supply of the SCR 296 to this location has been cancelled. The construction of an operations building, two power plant shelters, the tower footings, commercial power feed, and access road have been completed at Loc. 14.

SCR-582 and SCR 682

AUTHORITY - Letter, Hq NES, file 413.68, dated 7 November 1942; 2nd Ind. Hq C of E, file 665 CM 19150 SFECF, dated 25 November 1942, and 3rd Ind. CC Sig O, file SPERB 665.1 HD (1st Ser C) (11-7-42) dated 2 December 1942. A radar set SCR 682 was substituted for an SCR 582 persuant to letter, War Department, AGO, AG413.44 (24 July 1943) OB-S-EFRUS, 26 July 1943, subject: "Issue of Instructions on Replacement of SCR 582 Radar Set by SCR 682 Radar Set."

TYPE OF SET	LOC NO.	811% #0.	ASSIGNMENT	GROUND ELEVATION	APPECTIVE ANTENNA HRIGHT	EXHIBIT
	16	2C	HDGP - Surveillance	15'	127'	4-B-10
682	23	. JR ,	HDOP - Surveillance	1021	132	4-B-11

RADAR EQUIPMENT SCR 296

AUTHORITY -- T/O & E 4-260-1, dated 11 April 1944

SET No.	LOC NO.	SITE No.		SSIGNMENTS	ADDITIONAL	GROUND ELEVATION	EFFECTIVE ANTENNA HEIGHT	EXHIBIT
1	13A	3.4	112	Dunn		82'	186'	4-B-1
2	14	14	111	112	216	128'	234*	4-B-2*
3	16	1Ħ	Dunn	216	112	81'	187' .	4-B-3
4	16	11	216	Dunn		72'	178'	4-B-4
5	21	11	Benjamin	215	214	21*	127'	4-B-5
6	19	14	217	Maitland	Benjamin	75'	181'	4-B-6
7	20	18	Maitland	Benjamin	217	(14*)	120'	4-B-7
·8	23	1G	215	214	217	1001	2061	4-B-8
9 .	24Å	1 G	214	215	111	901	196'	4-B-9

The following set of the HD of Narragansett Bay has an additional assignment for a battery in this HD.

60-2 109#

17

145!

2521

4-B-12*

#Battery in HD/Narragensett Bay

*Due to the suspension of work on Battery Cons. 111 and Battery Cons. 109 as explained in Annex A, par. 5a, the supply of the SCR 296 to this location has been cancelled. The construction of an operations building, two power plant shelters, the tower footings, commercial power feed, and access road have been completed at Loc. 14.

8CR-582 and SCR 682

AUTHORITY - Letter, Hq NES, file 413.68, dated 7 November 1942; 2nd Ind. Hq C of E, file 665 CM 19150 SPEOF, dated 25 November 1942, and 3rd Ind. OC Sig O, file SPSRB 665.1 HD (1st Ser C) (11-7-42) dated 2 December 1942. A radar set SCR 682 was substituted for an SCR 582 pursuant to letter, War Department, AGO, AG413.44 (24 July 1943) OB-S-SPRMS, 26 July 1943, subject: "Issue of Instructions on Replacement of SCR 582 Radar Set by SCR 682 Radar Set."

TYPE OF SET	NO.	SITE NO.	Assignment	GROUND ELEVATION	EFFECTIVE ANTENNA · HEIGHT	EXHIBIT
582	16	2C	HDCP - Surveillance	75'	127!	4-B-10
682	23	111	HDCP - Surveillance	102*	132	4-B-11

1. TACTICAL ORGANIZATION.

- a. The tactical organization of the AA Battalion is shown in Exhibit 1-E. The two fixed AA gun batteries, the two AA S/L platoons, and the AAIS OP's, operate under control of the AA Battalion. They send their reports directly to its sub-operations board.
- b. The automatic AA weapons are assigned by T/OEE to the various batteries, both antiaircraft and seacoast. The AA Battalion Commander alerts the Harbor Defense on the approach of hostile aircraft, but has no direct fire control over any of the automatic weapons.
- c. The Harbor Defense Commander will assign some or all of the AMTB batteries to the AA Battalion whenever hostile aircraft present a more serious threat than do the seaborne targets.

2. ESTIMATED REINFORCEMENTS REQUIRED.

a. Counting on antiaircraft support from the AMTB batteries, the following additional mobile equipment is required to properly protect the three island forts:

Two (2) 90mm AA gun batteries

Sixteen (16) 37mm or 40mm guns

Ten (10) Al searchlights

Four (4) radar sets

b. Defense of the Camp Hero area would require:

Three (3)/90mm AA gun batteries

Twelve (12) 37mm or 40mm guns

Five (5) AA searchlights

Six (6) radar sets (including three with the AA batteries)

3. GUN DEFENSE.

- a. The AA Gun defense consists of two fixed 3" gun batteries of 3 guns each, located at Forts Michie and Wright, respectively. The two mobile AA gun batteries previously authorized for Montauk were eliminated by secret letter from the War Dept., file AG 660,2 AA (10-23-40) M-OCCA, dated 1 November 1940, subject: "Revision of Antiaircraft Annex, Harbor Defense Projects." The six AMTB batteries have secondary assignment of AA defense.
- b. According to T/O & E 4-260-1, dated 11 April 1944, one SCR 584 or SCR 545 is authorized per AA Gun Battery.

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Authority NND 760/62

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1. TACTICAL ORGANIZATION.

a. The tectical organization of the AA Battalion is shown in Exhibit 1-2. The two fixed AA gun batteries, the two AA 5/L platoons, and the AATS OF's, operate under control of the AA Battalion. They send their reports directly to its sub-operations board.

b. The automatic AA weapons are assigned by T/OER to the various batteries, both antisircraft and seasonst. The AA Battalion Commander slarts the Harbor Defense on the approach of hostile aircraft, but has no direct fire control ever any of the automatic weapons.

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2. ESTIMATED REINFORCEMENTS REQUIRED.

a. Counting on antiaircraft support from the AMTB batteries, the following additional mobile equipment is required to properly protect the three island forts:

Two (2) 90mm AA gum batteries

Sixteen (16) 37mm or 40mm gums

Ten (10) Al searchlights

Four (4) radar sets

b. Defense of the Camp Hero area would require:

Three (3) 90mm AA gum batteries

Twolve (12) 37mm or 40mm gums

Five (5) AA searchlights

Six (6) radar sets (including three with the AA batteries)

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b. According to T/O & 2 4-260-1, dated 11 April 1944, one SCR 584 or SCR 545 is authorized per AA Gun Battery.

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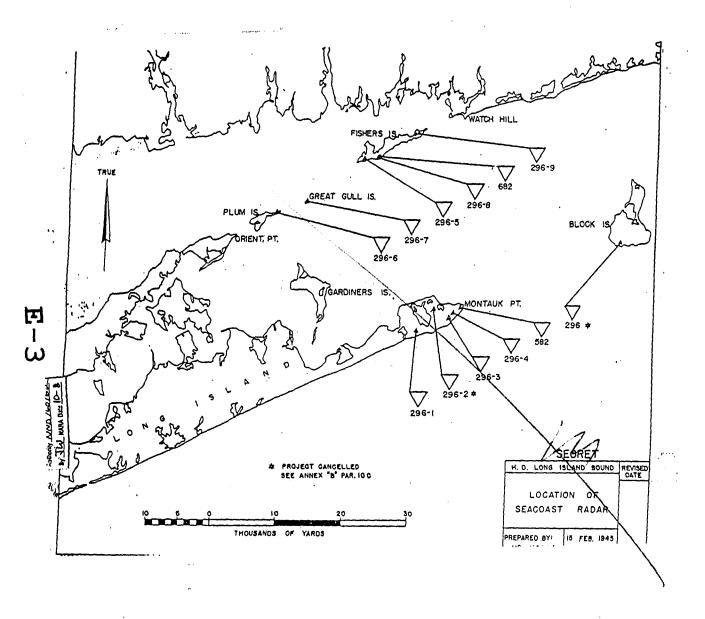
4. SEARCHLIGHT DEFENSE

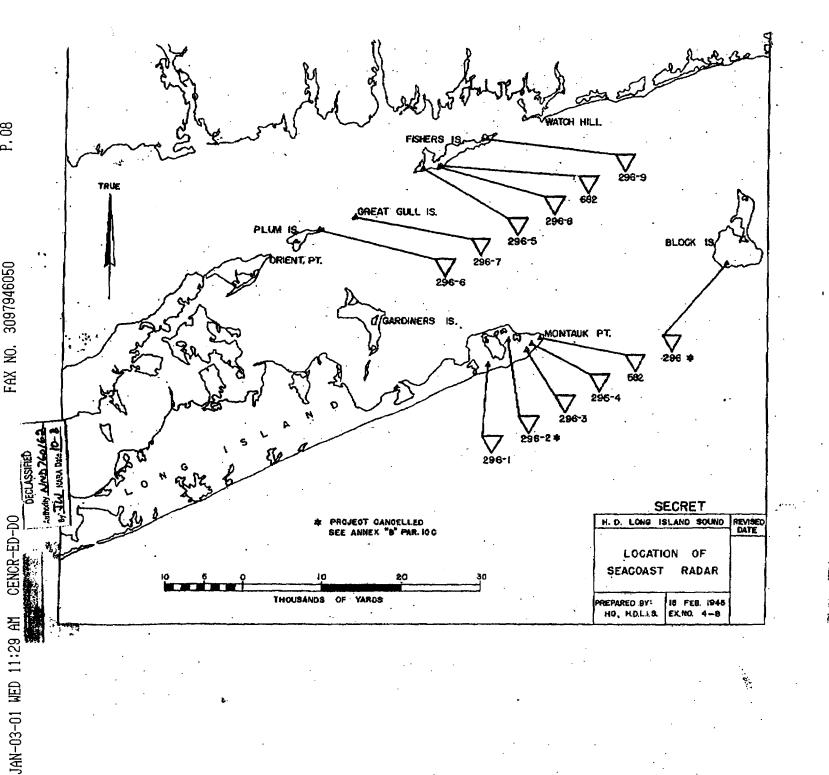
a. Five (5) 60-inch portable AA searchlights per fixed AA gun battery, a total of ten (10) for the Harbor Defenses, are authorized by the project.

b. T/O&E 4-260-1 authorizes three (3) radio sets SCR 268 per AA S/L platoon, a total of six (6) for the Harbor Defenses.

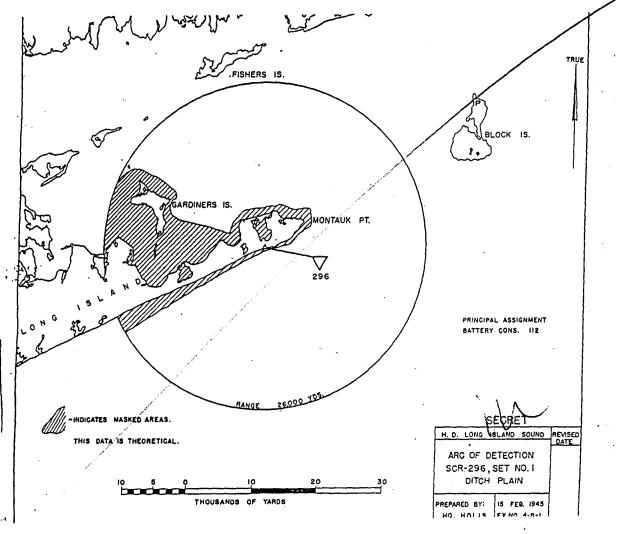
5. AUTOMATIC WEAPONS DEFENSE

The assignment of antiaircraft automatic weapons as authorized by T/O&E 4-260-1 is tabulated on the next two pages. The general location and fields of fire of the 40mm guns are shown on Exhibit 6-E.





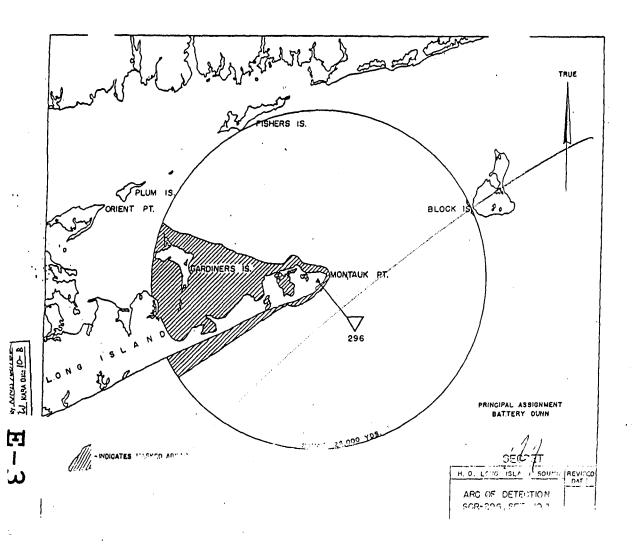
TRUE PRINCIPAL ASSIGNMENT BATTERY CONS. 112 SECRET H. D. LONG ISLAND SOUND REVISED DATE ARG OF DETECTION SCR-296, SET NO. 1 DITCH PLAIN 15 FEB. 1945 PREPARED BY: HO, HOLLS. EX.NO. 4-8-1

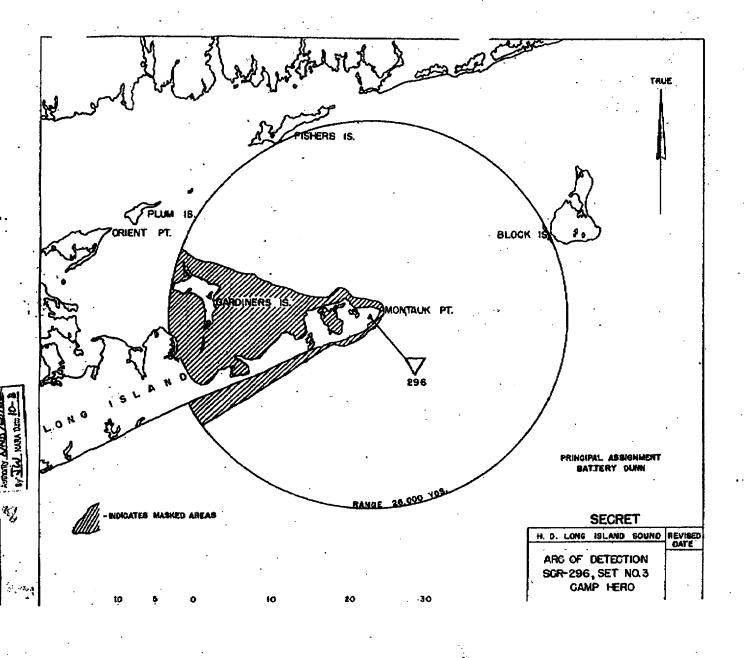


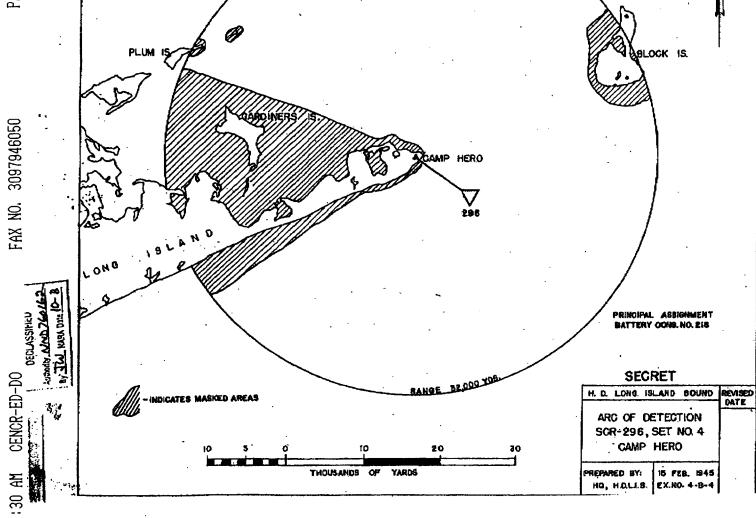
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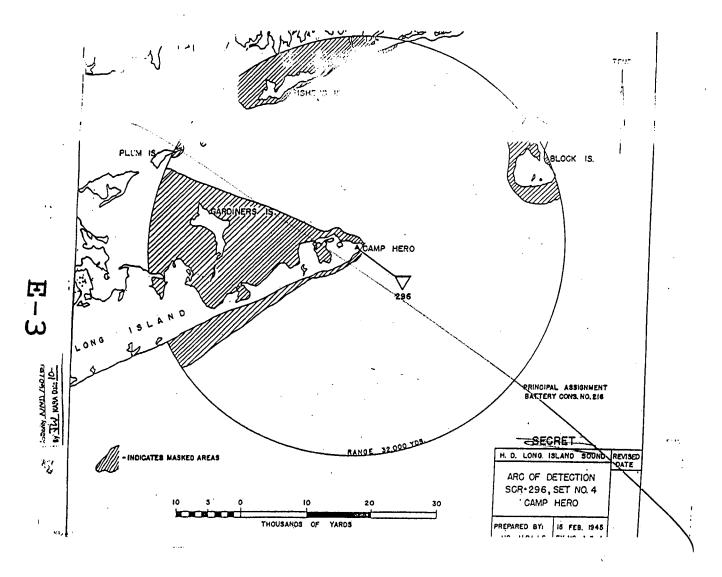


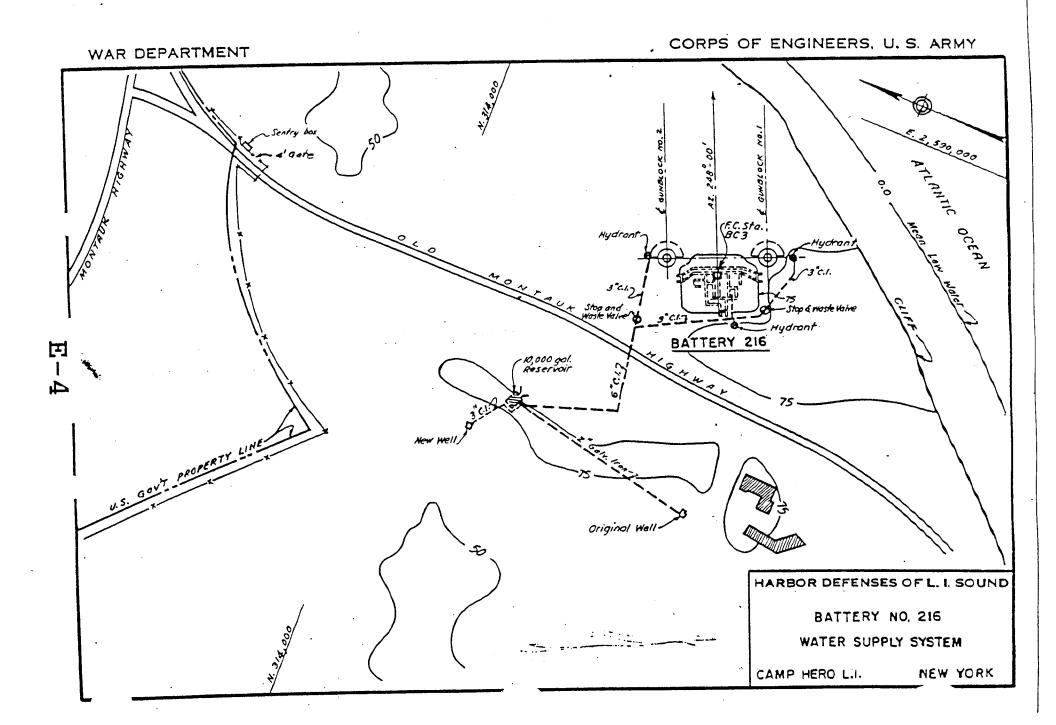




JAN-03-01 WED 11:30 AM

TRUE





CORPS OF ENGINEERS, U.S.ARMY

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WAR DEPARTMENT

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS. 600.714 (A J Sd) 90030 Part VI Corrected to 28 A pril 1943	HARBOR DEFENSES OF LONG ISLAND SOUND FORT CAMP HERO, L. I., NEW YORK
	HIGHHEER-BEPARTMENT-STRUCTURES Water Supply System - Battery #216
On this sheet list any existing structures of a p or in part by the Engineer Department, such as wharves, railroads and railroad equipment, giving for each a sho	storehouses, quarters, office buildings,

Location: Camp Hero Reservation, Montauk Pt., Eastern tip of Long Island. Date of Transfer: 5 January 1944

Cost to that Date: \$24,205.40

This project consists of 10,000 gal. concrete Reservoir and Pump Room with 1 Pire Pump at 180 G.P.M. and 1 Domestic Pump at 10 G.P.M.

1 Well Pump at 20 G.P.M.

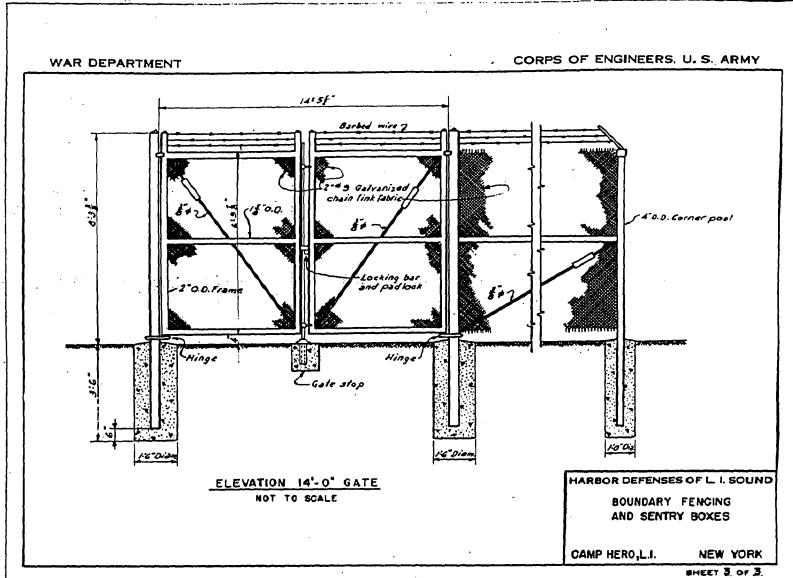
1470 lin. ft. of distribution lines.

construction, present use, location, etc., and cost if known.

SECKET

92-4882

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By JW HARA Date 20-8



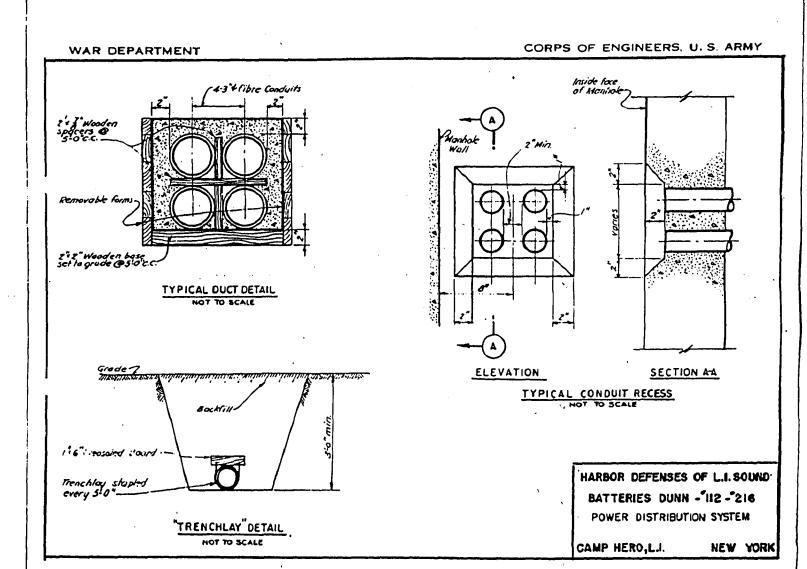
Sheet of 3

RIPORI OF WAPLETED WORKS - SEACOAST FORTIFICATIONS. 600.714 (43) 1104 Part VI Corrected to 26 January 1944	HARBOR DEFENSES OF LONG ISLAND SOUND FORT CAMP HEBO, L. I., MEN YORK INCOMER BEPARTMENT STRUCTURES BOUNDARY FENCING & SENTRY BOXES	•
On this sheet list any existing structures of a permanent or or in part by the Engineer Department, such as wharves, storehouse railroads and railroad equipment, giving for each a short descript construction, present use, location, etc., and cost if known.	semipermanent nature used wholly s, quarters, office buildings.	SPEKU-1
Location: Boundary of Camp Hero Reservation, Montauk Point, Easter Tate of Transfer: 5 January 1944 Jost to that date: Fencing - \$30,761.97	n tip of Long Island, N. Y.	- .

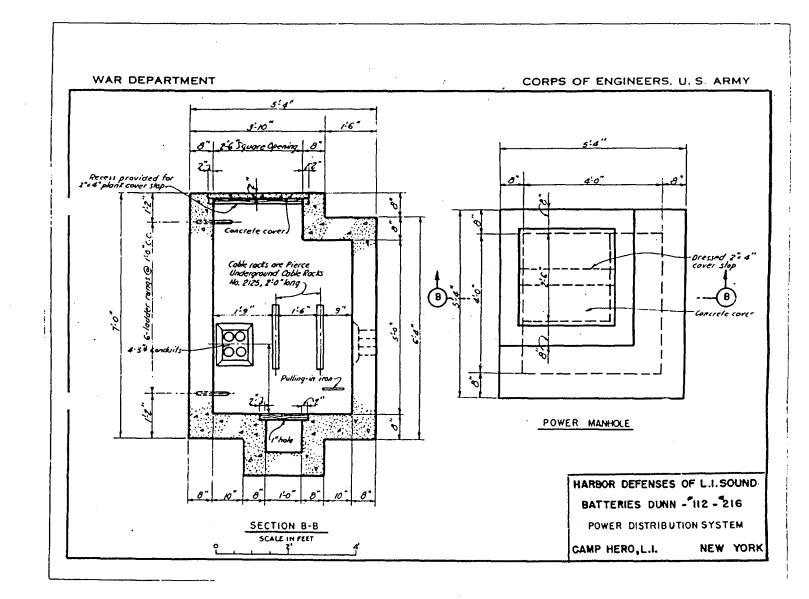
This project consists of 14,710 lin. ft. of 7° high #9 cyclone fence, and 6 concrete sentry boxes.

Sentry boxes- \$ 6,410.00

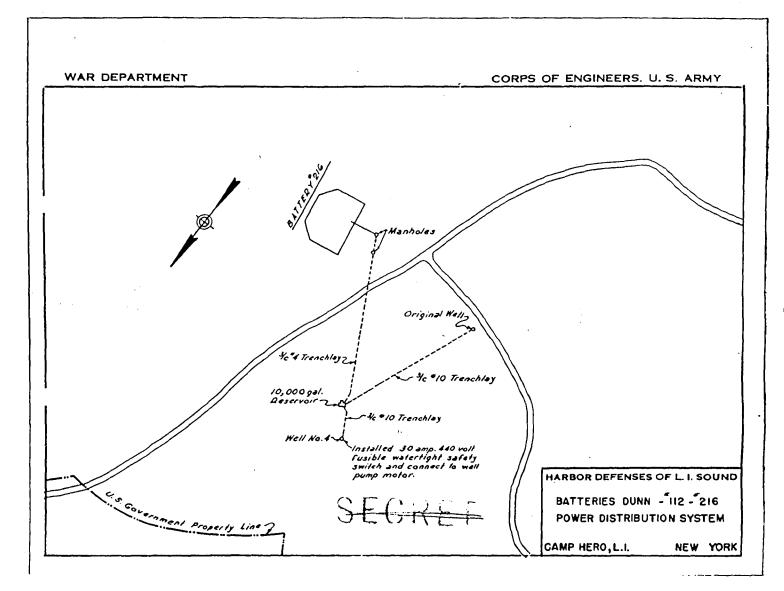
92-4882

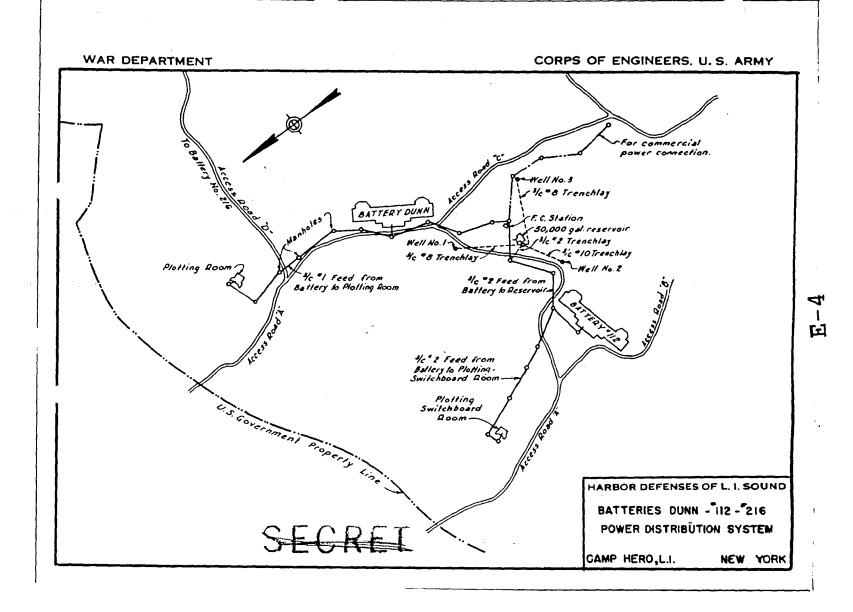


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DECLASSIFIED
Authority AMD 735036
By Jed Hara Gals 10-8





DECLASSIFIED
Authority AMD 735036
By JW IMPA Date 20-2

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS. 600 gix (1 = 1/) 900 30 Part VI Corrected to 24 April 1944

HARBOR DEFENSES OF LONG ISLAND SOUND CAMP HERO, L. I., NEW YORK

ENOUGHER DEPARTMENT STRUCTURES POWER DISTRIBUTION SYSTEM

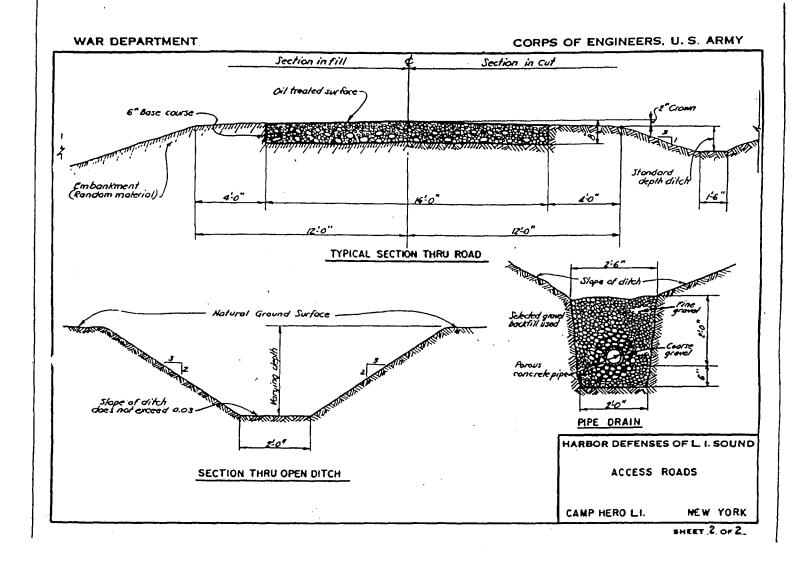
On this sheet list any existing structures of a permanent or semipermanent nature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings,

railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc., and cost if known.

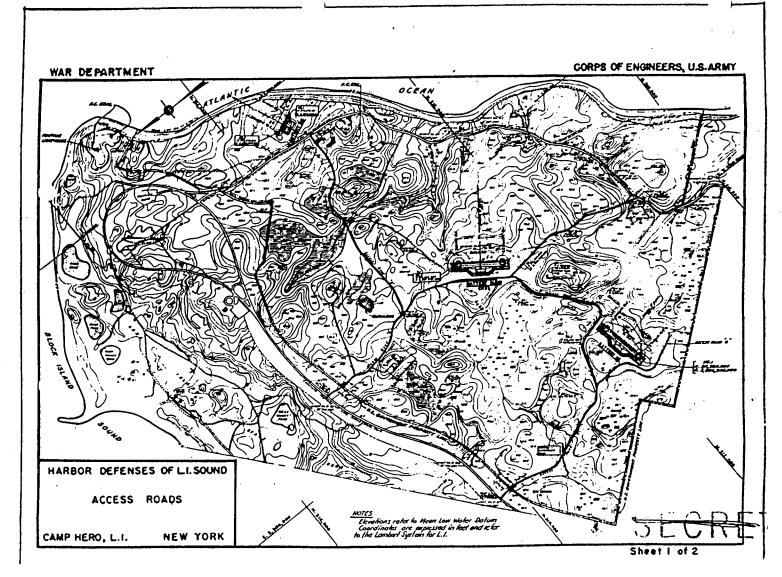
Location - Camp Hero Military Reservation, L. I., New York. D' of Transfer - 5 January 1944. Cu_ : to that date - \$46,705.45

This project consists of construction of manholes, duct lines, and installation of cables for the distribution of electrical power from Batteries Dunn, No. 112 & No. 216 to other fortification elements.

92-4552



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REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS.

HARBOR DEFENSES OF LONG ISLAND SOUND FORT CAMP HERO, L. I., NEW YORK

HOTHER-BEPARTMETT-ETRUGTURES
Access Roads

Part VI

DECLASSIFIED

Corrected to 26 April 1944.

On this sheet list any existing structures of a permanent or semipermanent rature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings, railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc., and cost if known.

SPEKM-1

Location - Camp Hero Reservation, Montauk Point, Eastern Tip of Long Island, N. Y.

te of Transfer: 5 January 1944

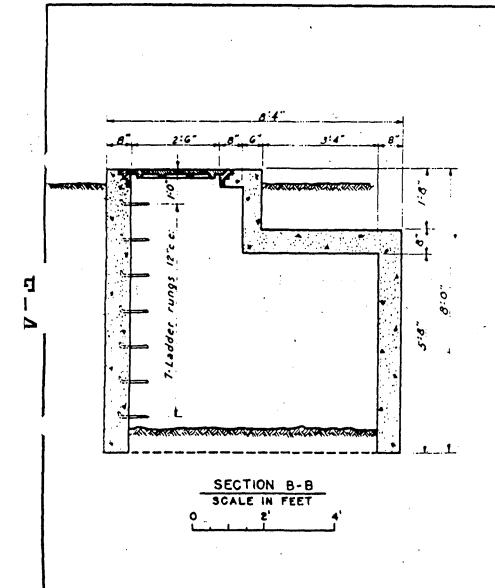
-- at to that date: \$72,976.34

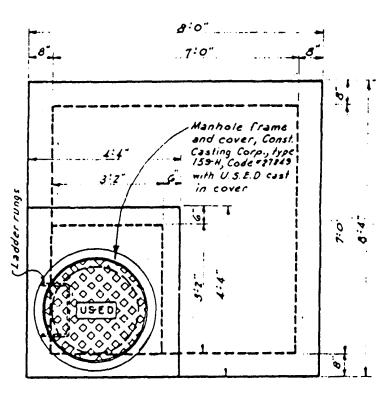
This project consists of access roads to fortification structures, drop inlets and culverts.

21,667 sq. yds. bituminous penetrated macadam roads.

SECRET

92-4882





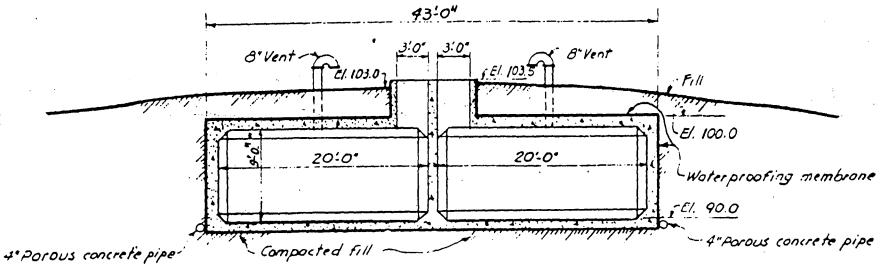
PLAN OF MANHOLE

BATTERIES DUNN & 112
WATER SUPPLY SYSTEM

CAMP HERO L.I.

NEW YORK

WAR DEPARTMENT . CORPS OF ENGINEERS, U.S. ARMY 7-4" 6:0" 10 16 6 1:0 3:0" -C.I. vent cop Coverd'C.I. soil pipe T Ladder SECTION A-A SCALE IN FEET 1-5" PLAN WELL PUMP HOUSE Figor sloped 1 per ff. to drain 3 INSTALLED HARBOR DEFENSES OF L.I. SOUND Drain-Crone Co. C 34698 BATTERIES DUNN & 112 WATER SUPPLY SYSTEM (2"C.1. drain to 3' x 3' x 3' dry well - Well Casing CAMP HERO LI. NEW YO



SECTION D-D

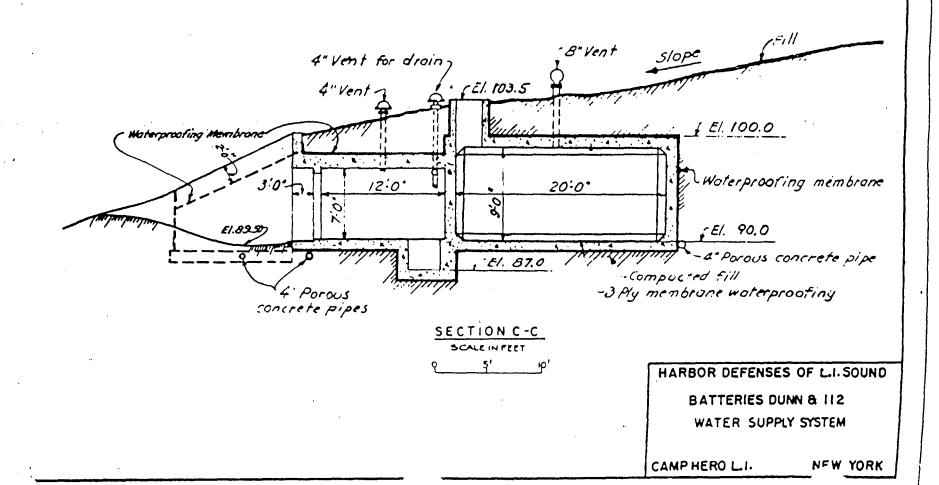
SCALE IN FT.

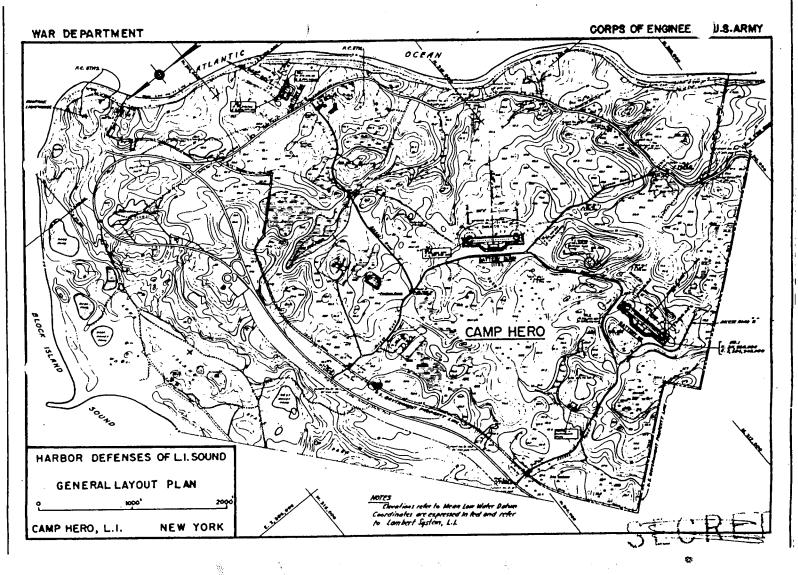
HARBOR DEFENSES OF L.I. SOUND

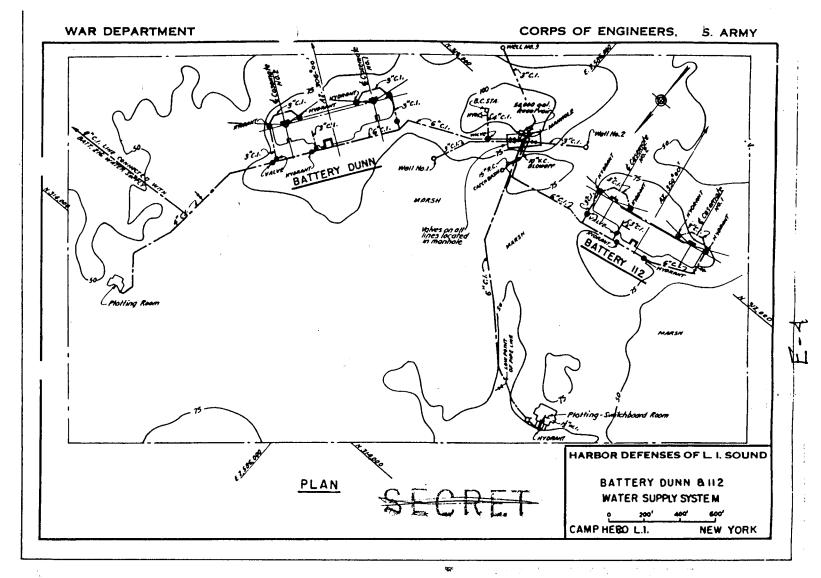
BATTERIES DUNN & 112
WATER SUPPLY SYSTEM

CAMP HERO L.I.

NEW YORK







Company of the second of the s

TORT CAMP HERO, L. 1., NEW YORK

ENGINEER DEPARTMENT - ETRUCTURES

Part VI

Corrected to 28 APRIL 1944.

WATER SUPPLY SYSTEM (BATT, DUNN & #112)

On this sheet list any existing structures of a permanent or semipermanent nature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings, railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc., and cost if known.

SPEKM-1

Location: Camp Hero, Reservation, Montauk Pt., Eastern tip of Long Island, New York. Date of Transfer: 5 January 1944.

C 5 to that date: \$66,526.12.

This project consists of 50,000 gal. concrete reservoir with Pump Room having

1 Fire Pump at 270 G.P.M. and 1 Domestic Pump at 50 G.P.M.

3 Well Pumps at 20 G.P.M. each.

9,600 lin. ft. of distribution lines (cast iron).

90030

SECRET

92-4882

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Author By ()

7

cottage, etc.) Type of construction (a) Roof Copper - Tower- Structural Steel (b) Remainder of bldg. Sheet Metal - Concrete Founda-How concealed .Comouflage Paint How protectedNona..... Height above consealment Hone..... Height above protection115.ft..... Conspicuous at 4,000 yards UTILITIES: Electric Power..... Source of Commercial + 2 - 25 EVA Generators Characteristics: Voltage 115Ac -or -BG-...Phase .14. Kilowatts required 15 Type of lighting fixtures Commercial Standard Fixtures Heat How heated Transmitter Bldg, Florence Heater Type- PF 28A Pater Sewer Connected to water mains No. Connected to sewer No Type latrine None REFERENCE:

Part II

REPORT OF CONFLETED HORKS - SEACOAST FORTIFICATIONS

(Fire Control or Submarine Mine Structure)

Corrected to

STRUCTURE: Projection (L.I.) x 64,614,673 yds.

Location (by coordinates) y 48,651,626 yds. Location (by site description) East end of Camp Hero Date of transfer 27 October 1943 Reservation Cost to that date \$ 20,501.02 * Type (for observing stat.-tower, dug-in,

Reference of site Mean Low Nater

(Type and Capacity of Grane One Ton Electric 12- - C --- 1-Londing 104' Lift

Reference of instrument axis 4

Special Lambert

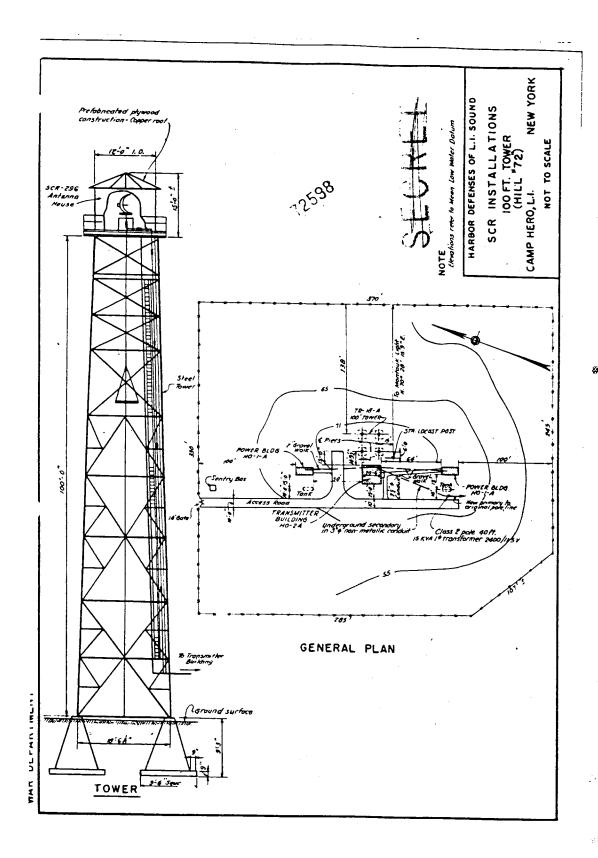
8 December 1943

Center of Tower

STRUCTURE SCR-296 INSTALLATION (HILL "72") For Stry. 216
Type of plottin; board
DATA TRANSMISSION: Type Date of transfer
TIDE STATION: Give description of tide gauge
DATUM POINTS: Give Forts from which visible
QUARTERS: Give stations served
CABLE HUT: Give S.C. Type
Remarks: **Prefabricated antenna house, tower, two power buildings, generators, tanks, equipment and transmitter building for SCR-296 Installation supplied by the Signal Corps.

HARBOR DEFENSES OF LONG ISLAND SOUND....

PORT CAMP HERO, L. I. MEN YORK



E-4

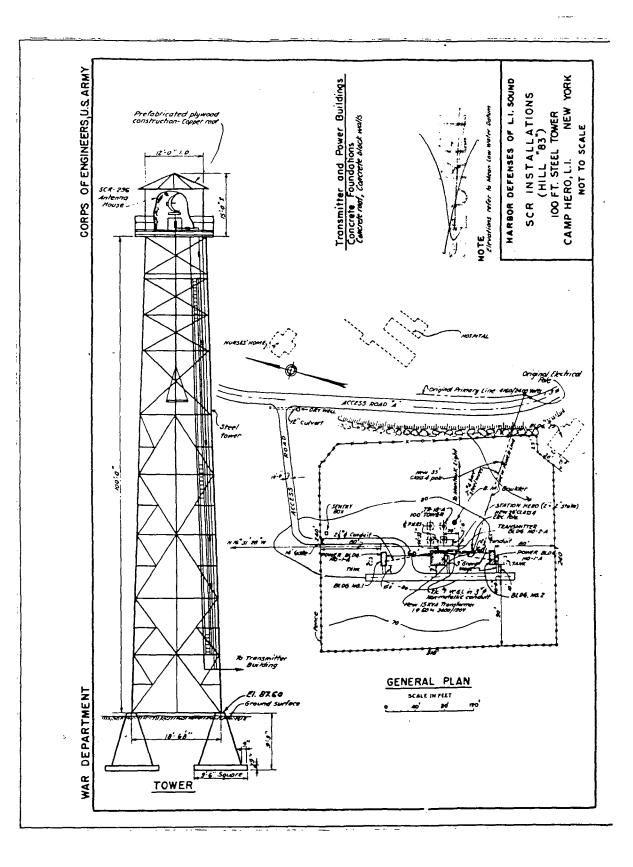
600,714(1.11) 99407

REPORT OF COMFLETED WORKS - SEACOAST FORTIFICATIONS (Fire Control or Submarine Mine Structure)

Part II Corrected to 15 MARCH 1944	DA 600.914 (Northern 175 745)
STRUCTURE: Special Lembert Center of Tower Location (by coordinates) y 48,849.308.yds. Location (by site description) Camp Hero Reservation Date of transfer 5 January 1944 Center Cost to that date \$18,297.36* S.G.Project 233 Funds Type (for observing stattower, dug-in, cottage, etc.) Tower	Type of observing inst. SCR-296 Installation Type of plottin; board DATA TRANSMISSION: Type Type Telephones
Type of construction (a) Roof Copper - Tower Struct, Steel (b) Remainder of bldgs, Concrete Block. How concealed Camouflage Peint How protected Splinterproof Concrete - Bldgs. Height above consealment None Height above protection Tower - 115' shove ground	Date of transfer TIDE STATION: Give description of tide gauge
UTILITIES: Electric Power. Source of	DATUM POINTS: Give Forts from which visible GUARTERS: Give stations served
Kilowatts required 15. Type of lighting fixtures Commercial Standard - CSF Heat How heated Transmitter Bldg Florence Heater - Type PF-28A	CABLE HUT: Give S.C. Type Prefabricated antenna house, tower, generators,
Connected to water mains No. Connected to sewer No. Type latrine None .	tanks, equipment for SCR-296 installation supplied by the Signal Corps. This project includes also, wooden sentry box, fencing around property, and access road.
REFERENCE: Reference of site Top of Tower Footing - El. 87.60 M.L.W Reference of instrument axis	m

CAMP HERO, LONG ISLAND, MER YORK
STRUCTURE SCR-296 INSTALLATION
(HILL "65") Copy of 1
MA 600.914 (Mostack Por 7, 5)
INSTRUMENTS & EQUIPMENT PAR AND 994U7
Type of observing inst. SCR-296 Installation 197
Type of plottin; board
DATA TRANSMISSION:
TypeTelephones
Date of transfer
TIDE STATION: Give description of tide gauge
dive description of tide gauge
DATUM POINTS: Give Forts from which visible
QUARTERS:
Give stations served
CABLE HUT:
Give S.C. Type
*Prefabricated antenna house, tower, generators, tanks, equipment for SCR-296 installation supplied by the Signal Corps.

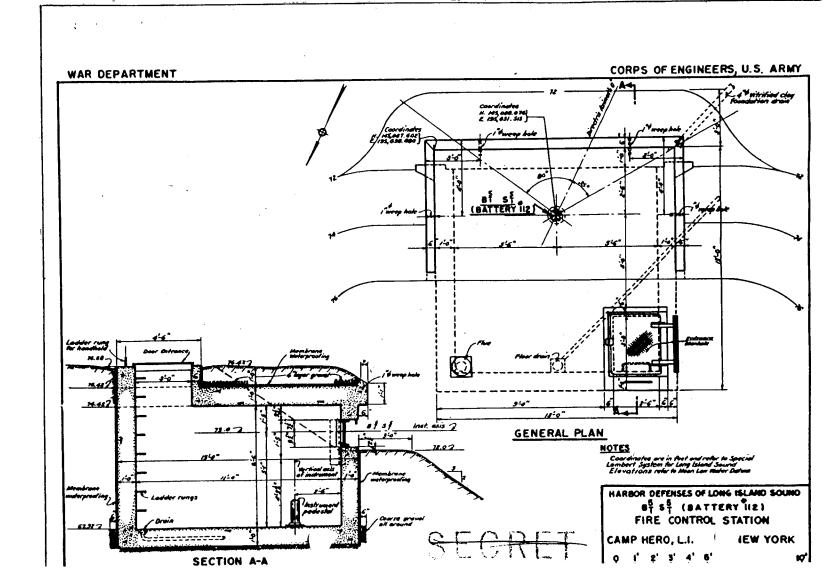
HARBOR DEFENSES OF LONG ISLAND SOUND



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Authority AMD 735035
By 54 IMPA Date 20-8



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JE.PORT OF COMFLETED WORKS - SEACOAST FORTIFICATIONS

(Fire Control or Submarine Mine Structure)

	STRUCTURE FIRE CONTROL STATION
Part II Corrected to 8 APRIL 1944	STRUCTURE FIRE CONTROL STATION Bost (Batt. No. 112)
STRUCTURE: Special Lambert Conter of Instrument X.E £5,010.692 yda	INSTRUMENTS & EQUIPMENT
Location (by coordinates) y.N-48,362,692,yda	Type of observing inst. Azimuth
Location (by site description) Location 16- Site 2A	Type of plotting board None
Date of transfer24 September 1943	appo de parodem soute
Cost to that date \$5,275.63	
Type (for observing stattower, dug-in,	DATA TRANSMISSION:
cotu ge, etc.) Dug-in Typa	TypeTelephone
Type of construction	Date of transfer
(a) Roof	
(b) Remainder of bldg. Conorate.	
How concealed Earth All. A. yagetation	TIDE STATION:
How protected Splinterproof Concreta	Give description of tide gauge
leight above protection None	The Committee of the Co
Conspinuous et 1 000 made	DATUM POINTS:
Conspicuous at 1,000 yards	Give Forts from which visible
UTILITIES:	
Electric Power	Give stations served
Source of Commercial A. Fortification.	Give stations served
Characteristics; Voltage 115Ac or-Der. Phase 1	1. 也不知识的 1000 A
Kilowatts required 0.5	A THE CONSTRUCTION OF THE PROPERTY OF THE PROP
Type of lighting fixtures Commercial Standard - CSF	E CABLE HUT: Q D D D D
Heat How heated Flue provided	Give 8.0. Type O L
"hter Sower	
Pater Sewer - Connected to water mains No	
Connected to govern	
Type latring	ADDO-
Type latrine	
400	
REFERENCE: Floor El. 67.92	Set Eleveron
merence of site	The same of the sa
Reference of instrument axis Kean Low Mater 21. 73.00	
where (Troe and Capacity of Crune wone	
applicable (lix. dia. of real handled	
	of of carrow ag
5697	PROOF ELEVATION

BZ SZ (DUNN)

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SECTIONAL PLAN

SCALE: IN FEET

2' 0 2'

HARBOR DEFENSES OF LL SOUND

FIRE CONTROL STATION

B2 52 (DUNN)

MONTAUK PT., L.I.

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SHEET 2 .

HARBOR DEFENSES OF LL SOUND

SCALE IN FEET

FIRE CONTROL STATION B2 52 (DUNN)

MONTAUK PT., L.I.

NEW YORK

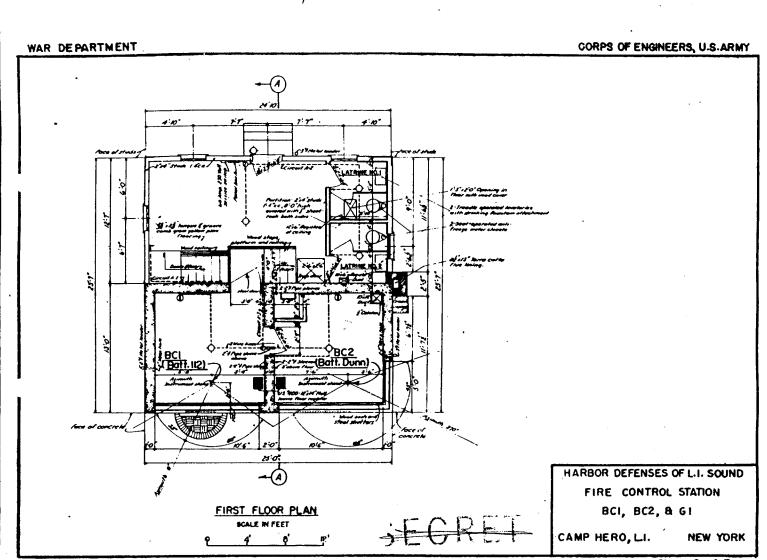
SI TI OF 6

Nature and Cost of Additional Repairs & Modifications

1944		
This	project consists of the installation of wiring and incidental	
work for	a proposed standby generator for Fire Control equipment	
within e	existing structure; construction of a wood frame generator	
shelter	unit\$ 73	5.43

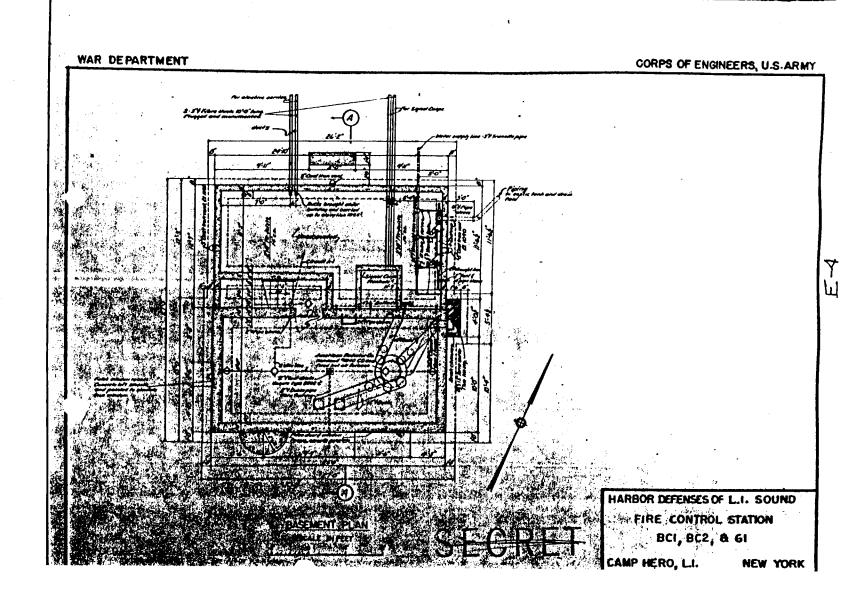
Part II Corrected to 8 APRIL 1944	B2S2 (DUNII) at Comp. Haro
STRUCTURE: Special Lambert Center of D.P.F. Instrument X. 65,600.699 yda. Location (by coordinates) y. 49,103.407 yda. Location (by site description) Location 16.—Site 2B Date of transfer .4 January 1944. Cost to that date .44.165.09 Type (for observing stattower, dug-in, cottage, etc.) Rug-in Type Type of construction (a) Roof Concrete & earth fill (b) Remainder of bldg. Concrete How concealed .Earth fill & camouflage Paint. How protected . Splinterproof Concrete Height above concealment .None. Height above protection Hone. Conspicuous at 2,000 yards	INSTRUMENTS & EQUIPMENT Type of observing inst. Azimuth & D.P.F. Type of plottin; board None DATA TRANSMISSION: Type
REFERENCE: Reference of instrument axis 1.2. Fl. 73.60 M.L.W. where (Type and Capacity of Grane Home)	QUARTERS: Que stations served CABLE HUT: Give S.C. Type (See attached sheet) Antallation of the rest defended at the state of the st

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Sheet 6 of 7

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By JW PIARA DEED CO-8



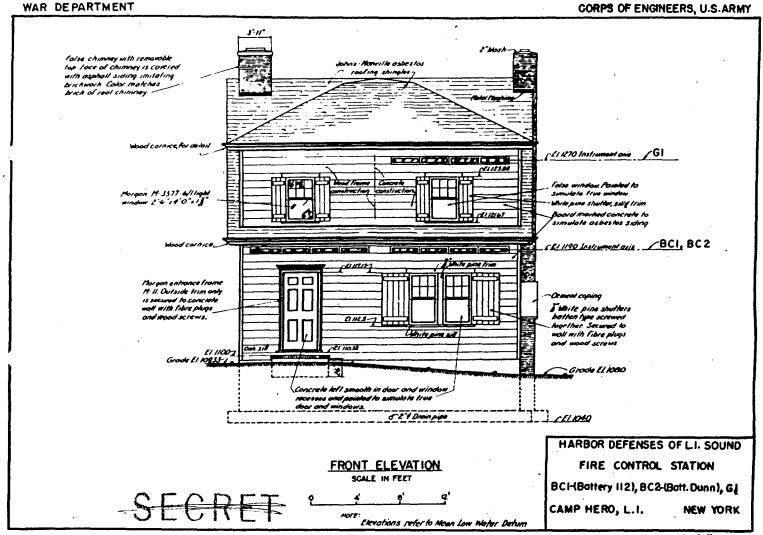
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FIRE CONTROL STATION BCI, BC 2, & GI

CAMP HERO, L.I. NEW YORK

WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY Johns Monville onheston roofing shingles Morgan: M-3577-Calaba "6/ Ingl windows. 2:6"x4"-0"x If and 2!4"x5"0"x1f Hop Apt BCI, BC2 _lohns Monville cedar grain Tasbestas clapboard siding simulates ashestos aiding \$ 1 Metal weep hate pipe -soldered to metal leader 3 / Metal Hoder CFINISH Place El. 1105 Grode [1080 Brick chimney A'Costinon thru modifi out to explic tonk HARBOR DEFENSES OF LI. SOUND

WAR DEPARTMENT



Sheet I of 7

Αυτηριτίες ΔΙΑΣΟ

7 Cost to that date \$18,987.02 Type (for observing stat.-tower, dug-in, cottege, etc.) Cottage Type Type of construction (a) Roof Wood Frame, Asbestos Shingles (b) Remainder of bldg. Rood Frame. & Concrete. How concealed Simulated Cottage..... How protected Splinterproof.Concreta..... Height above concealment None Height above protection5.Ft. Conspicuous at 6.000 yards UTILITIES: Electric Power..... Source of Fortifications (Batt. #112)
Characteristics: Voltage Ac ex-DC. Phase 12.
Kilowatts required 5.0 Type of lighting fixtures Commercial Standard C.S.F. Heat How heated Coal Fired Hot Air Furnace Mater Sewer Connected to water mains Yes Connected to sewer Septic Tank & Tile Drain Field Type latrine Flush Type

REFERENCE:

applicable

where

Part II

STRUCTURE Special Lambert

HEPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS

8 APRIL 1944 ...

Finished First Floor- El.110.50

(Type and Capacity of te Nona....

(Mix. dia. of rock-handled

Center of Instrument - 1st Floor

(Fire Control or Submarine Mine Structure)

Corrected to

RUCTURE: Projection (L.I.) x ..64,094.215.yds..... Location (by coordinates) y ...48,160.566.yds.....

Date of transfer 3 January 1944

Reference of site Mean Low Water Reference of instrument axis El. 127.0 M.L.W.

Location (by site description) Location 16- Site 10

FORT ... CAMP HERO, L. I., NIN YORK STRUCTURE FIRE CONTROL STATION BC1 (Batt. #112), BC2 (Dunn) & G1 # 6, INSTRUMENTS & EQUIPMENT Type of observing inst. Azimutb Type of plotting board DATA TRANSMISSION: TIDE STATION: Give description of tide gauge ... DATUM POINTS: Give Forts from which visible QUARTERS: Give stations served CABLE HUT:

Give S.C. Type

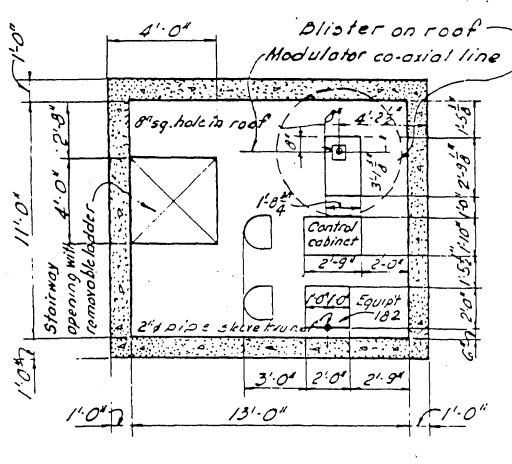
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HARBOR DEFENSES OF LONG ISLAND SOUND

WAR DEPARTMENT CORPS OF ENGINEERS, U. S. ARMY -New location of fog horns and pipe support New location of fog horn and pipe support. Corner boards PLAN SCALE IN FEET HARBOR DEFENSES OF L. I. SOUND FIRE CONTROL STATION RELOGATION OF FOG HORNS MONTALIK POINT JEW YORK

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PLAN OF GTH FLOOR SHOWING CABINET LOCATIONS

5 cole in feet

1' 0 4' 8' 12'

FIRE CONTROL STATION
AND SCR INSTALLATIONS

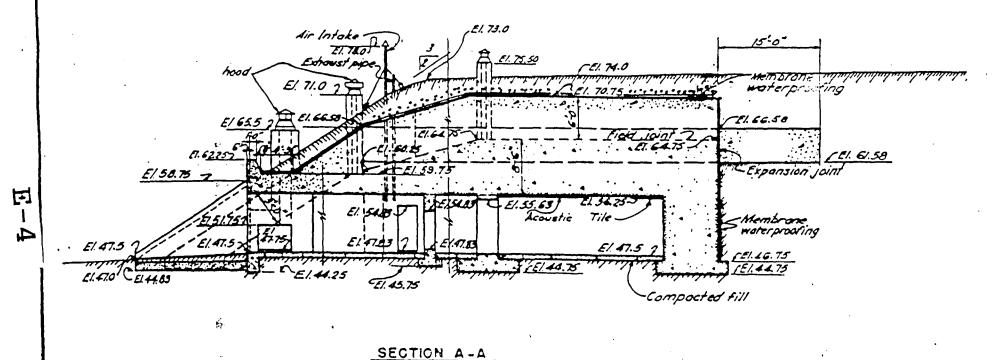
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HEET. 4 OF 4



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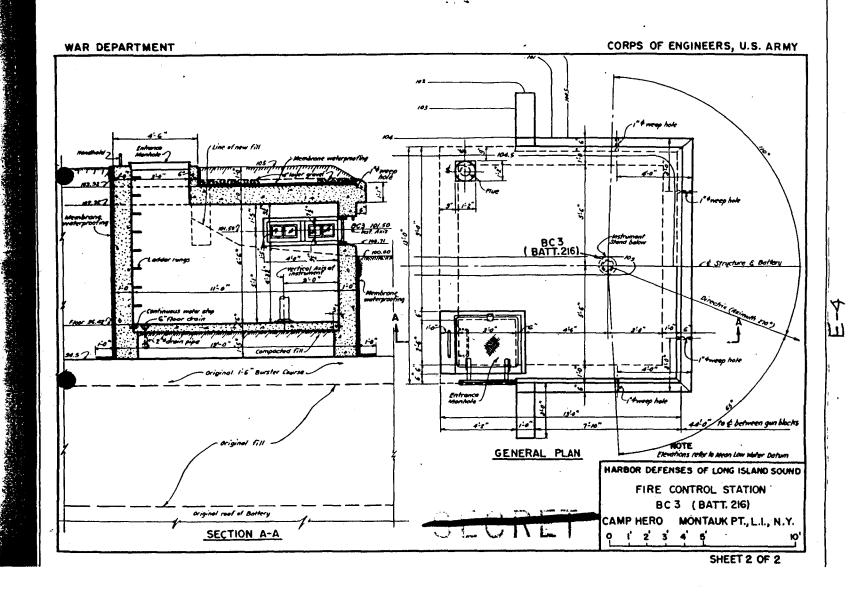
SCALE IN FEET

HEET

NEW YORK

HARBOR DEFENSES OF L.I.SOUND PLOTTING SWITCHBOARD ROOM BATTERIES DUNN AND NO.112

CAMP HERO, L.I.



Date of transfer 5 January 1944. Cost to that date ...\$161,648,56..... Type (for observing stat.-tower, dug-in, cottege, etc.) Bombproof..... Type of construction (a) Roof Congrete (b) Remainder of bldg......Concrete How concealed Earth Cill & regotation How protected Bombproof Concrete - Sand Fill Conspicuous at 500 yards UTILITIES: Electric Power.

Source of Fortification & Diesel Generator
Characteristics: Voltage Ac 08 90. Phase 3. Kilowatts required 50 Type of lighting fixtures Commercial Standard - CSF Heat How heated Coal Fired Bailer, Hat Air, Auto-Stoker Mater Sewer Connected to water mains Yes Connected to sewer Septic Tank & Drain Field Type latrine Non-Freze, Pressure Tanks Fin. Floor El. 47.50

REFERENCE:

applicable

where

REPORT OF COMFLETED WORKS - SEACOAST FORTIFICATIONS (Fire Control or Submarine Mine Structure)

STRUCTURE: Projection (L.I.) x. 63,664.172 yda..... Location (by coordinates) y 48.545.478.149..... Location (by site description) N.W. pert of recervation

Reference of site..... Mean Low Nater.....

(Type and Capacity of Crane Mone

(Mix. dia. of real-handled

Reference of instrument axis None

Corrected to 20 April

600.914 (2 2) 89704

Special Lambert

	FORT- CAMP HERO. L. I. MER YORK STRUCTURE PLOTITUG-SWITCHBOARD ROOM BATTERIES 1112	. •
-	INSTRUMENTS & AQUIPMENT	
	Type of observing inst. None Type of plotting board M4	
•	DATA TRANSMISSION: Type Telephone, Redio & Data Computer Date of transfer	
	TIDE STATION: Give description of tide gauge	=
(end	DATUM POINTS: Give Forts from which visible	_
appiicable	QUARTERS: Give stations served	=
(where	CABLE HUT: Give S.C. Type	

× ...



Nature & Cost of Additional Repairs & Modifications

1944

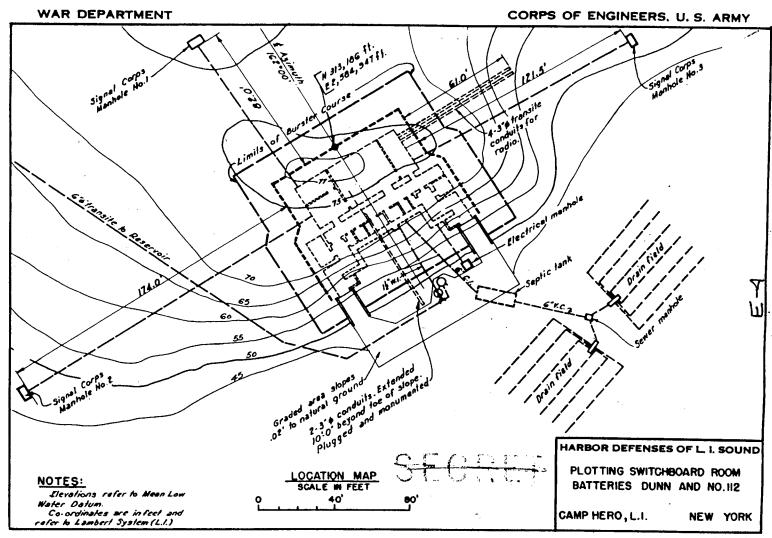
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Authority AUVO 75503C
By Jed Hara Dele 20-8

WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY OCEAN HARBOR DEFENSES OF L.I. SOUND PLOTTING-SWITCHBOARD ROOM BATTERIES DUNN AND NO. 11 2

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SHEET L OF 4

DECLASSIFIED
Authority AMD 785036
By JW HARA Dete 10-8

CORPS OF ENGINEERS, U.S.ARMY WAR DEPARTMENT Floor EL 47.5 HARBOR DEFENSES OF L.I. SOUND PLOTTING SWITCHBOARD ROOM BATTERIES DUNN AND NOJIZ CAMP HERO, L.L. NEW YORK

ICED AT THE NATIONAL ARCHIVES

NATURE & COST OF ADDITIONAL REPAIRS AND MODIFICATIONS

1944

S.C.R. 582 Installation installed Wooden Blister put on roof of F.C. Station Sheet metal covered Power Plant with concrete footings.

Blister & Power Plant prefabricated and supplied by Signal

\$3,106.78

This project consists of the installation of wiring and incidental work for a proposed standby generator for Fire Control equipment within existing structure.

\$ 239.43

1944

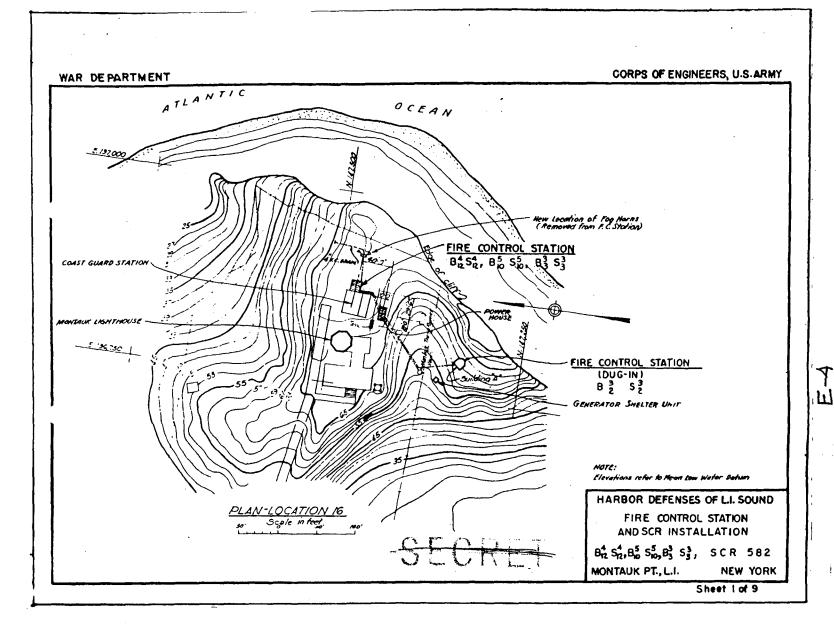
This project consists of relocating Fog Horns from existing Fire Control Station and construction of wooden shelter and supports for horns

\$2,071.99



HARDOR DEFERSES OF LONG ISLAND SOUND Part II Proposed to Structure to Lamber to Control Lamber to Control Lamber to Control Location (by coordinates) to July 10 Location (by cite description) at a lamber to State the Location (by cite description) at a lamb to State the Lamb to Lamb to State that the Lamb to Lamb to State the Lamb to Lamb to Lamb to State the Lamb to L aris interior Aris disciplination of the since Height above protection Height above protection Communications at 278

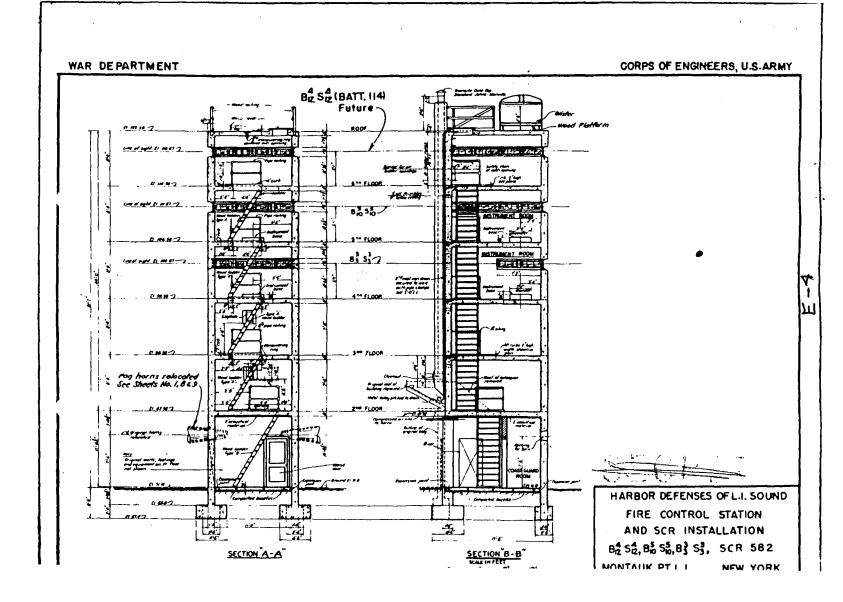
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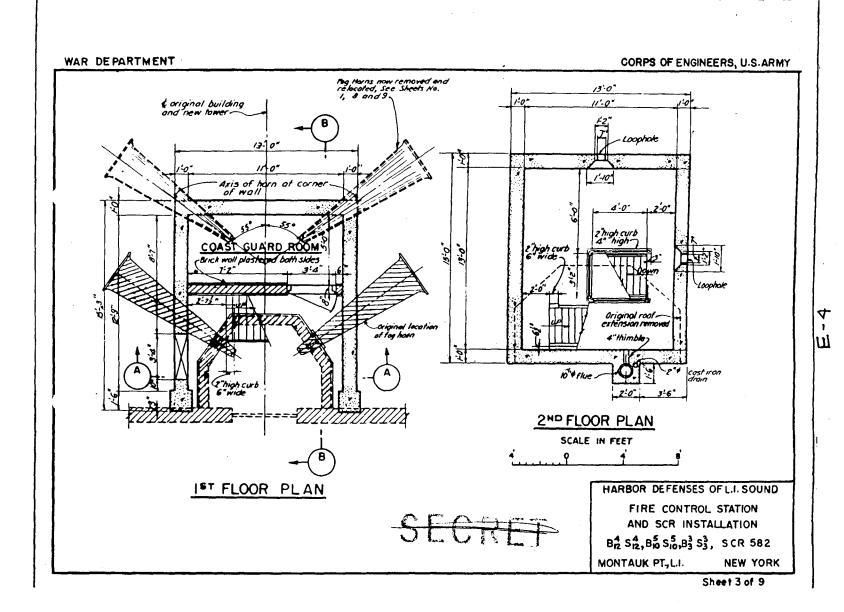
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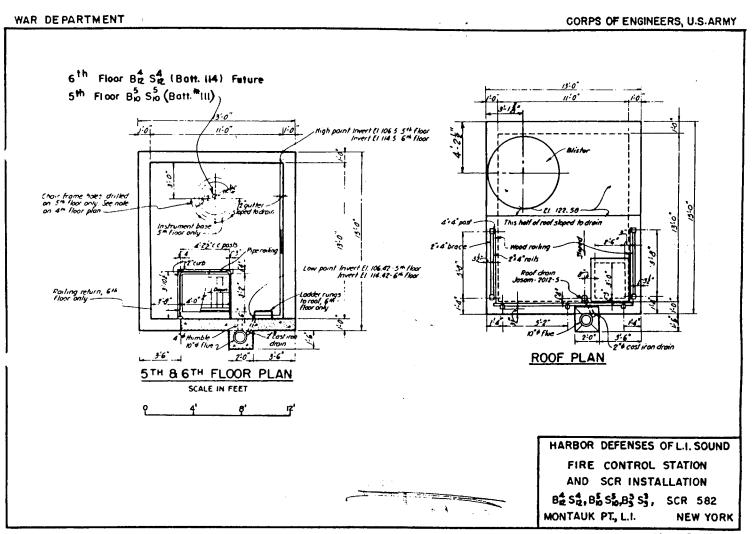
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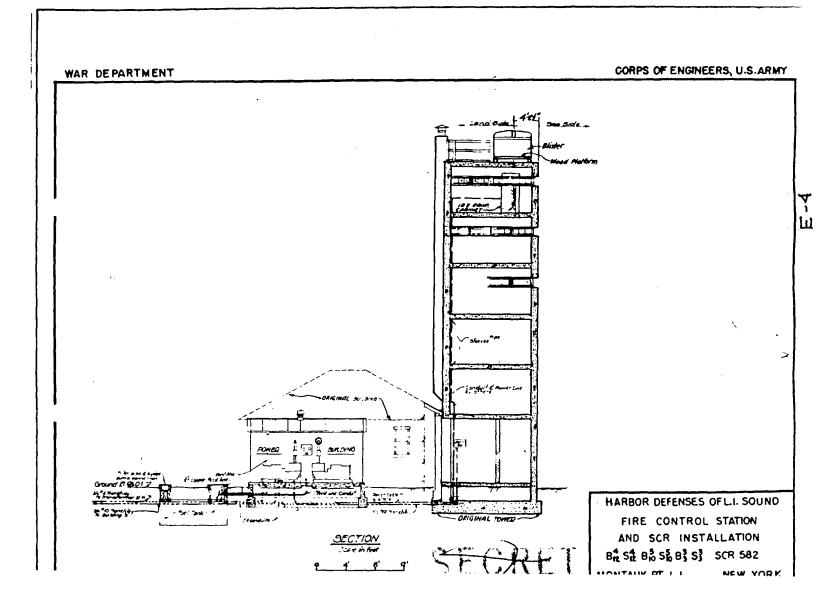


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Sheet 5 of 9

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By Jew HARA Gain ZO-B

REPORT OF COMFLETED WORKS - SEACOAST FORTIFICATIONS

(Fire Control or Submarine Mine Structure)

600.914 (1) 19104

Part II Corrected to 24 APRIL 1944

HARBOR DEFENSES OF LONG ISLAND SQUND

PORT CAMP HERO LONG ISLAND NEW YORK

STRUCTURE Fire Control Station

BC 3 (Batt. No. 216)

Center of instrument x 2,589,569.16 ft. Lambert System STRUCTURE: (L.I.) Location (by coordinates) y 313,475,37 ft. Location (by site description) Top of Battery No. 216 Date of transfer 24 September 1943 Cost to that date \$3,298,59 Type (for observing stat.-tower, dug-in, cottage, etc.) Dug-in Type Type of construction
(a) Roof Concrete (b) Remainder of bldg...Concrete
How concealed Earth & Vegetation How protected Splinterproof Concrete Height above consealment None Conspicuous at 1,000. yards UTILITIES: Electric Power.
Source of Commercial & Fortification

INSTRUMENTS & EQUIPMENT

Type of observing inst. Azimuth

Type of plottin; board None

Type ______Telephone

Give description of tide gauge

DATUM POINTS:

Give Forts from which visible

QUARTERS:

Give stations served

DATA TRANSMISSION:

CABLE HUT:

applicable)



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			, T	٠,	HONT E
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Heat

iow heated Prepared for Coal Stoxe Water Sewer

Connected to water mains No
Connected to sewer No
Type latrine Name

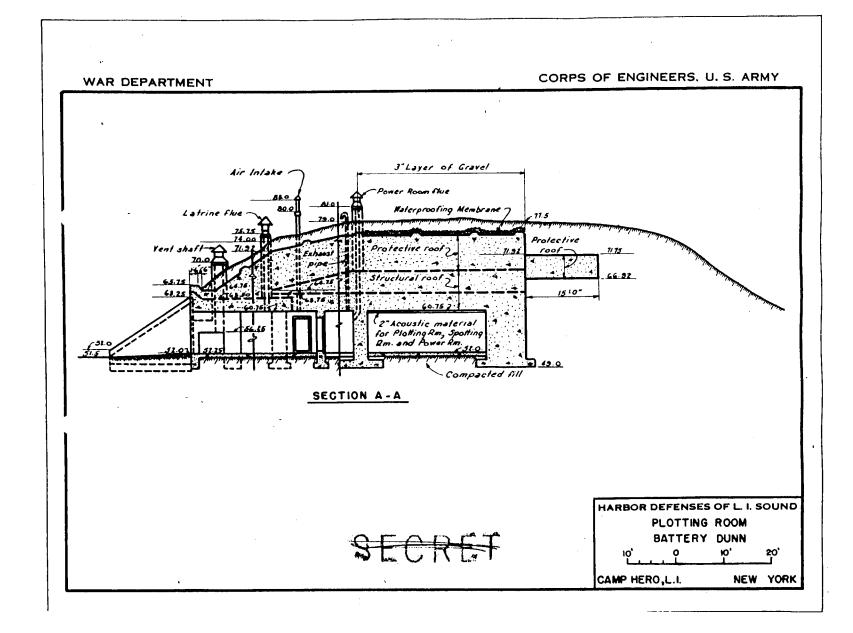
Characteristics: Voltage 115 Ac er-D6. Phase 1. Kilowatts required Q.5.

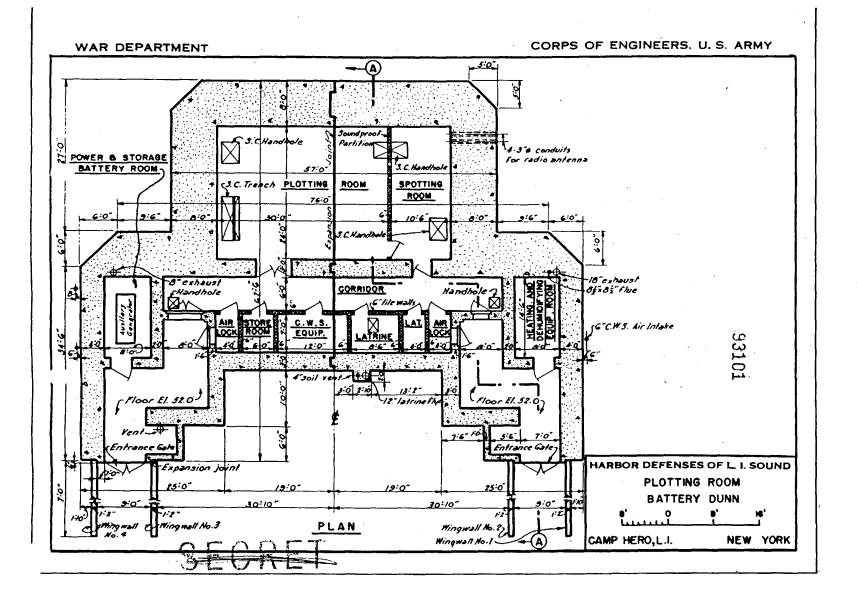
Type of lighting fixtures Commercial Standard - CSF

REFERENCE: Fin. Floor Elev. 96.42

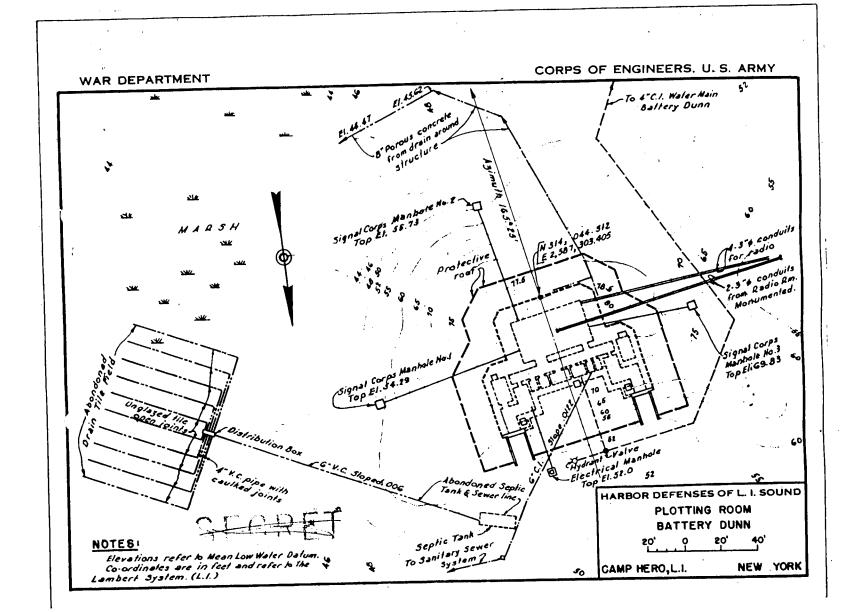
Reference of site Mean Low Rater

SCED AT THE NATIONAL ARC





DECLASSIFIED
Authority AMAD 73503C
By Journal MARA Date 10-8



Nature & Cost of Additional Repairs & Modifications

1944



S-01 ets O ARAH WE VB

Authority AMD

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS (Fire Control or Submarine Mine Structure)

1944

(Where

Corrected to

Part II

HARBOR DEFENSES OF LONG ISLAND SOUND FORT CAMP HERO, L. I., NET MAKE.

STRUCTURE PLOTTING ROOM - HATTERY DUNN E

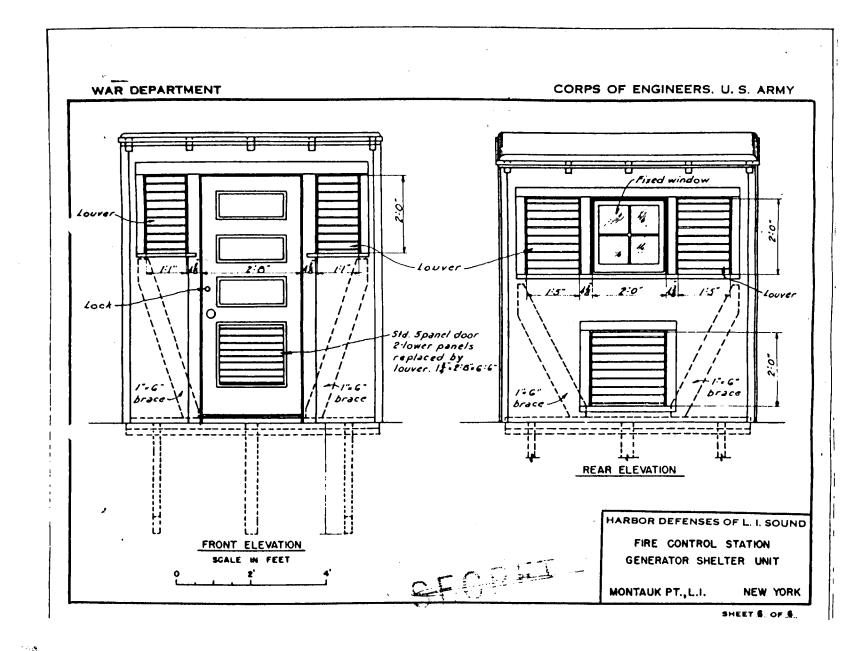
STRUCTURE Special Lambert CRUCTURE Projection (L.I.)

Location (by coordinates)

Location (by coordinates) Location (by site description) ME part of reservation Date of transfer 5. January 1944. Cost to that date ___2161_113.69 Project 270 Funds Type (for observing stat.-tower, dug-in, cottage, etc.) ...Bombproof Type of construction (b) Remainder of bldg. Concrete How concealed Earth fill & Vegetation How protected Bombproof Concrete & Sand Fill Height above concealment None Height above protection None Conspicuous at 500 yards UTILITIES: Electric Power..... Source of Fartification & Diesel Generator Characteristics: Voltage Ac or DG. Phase 3.0 Kilowatts required 30 Type of lighting fixtures Commercial Standard - CSF Heat how heated Coal Fired Boiler, Hot Air, Auto-Stoker ™ater Sewer Connected to water mains Yes Connected to sewer Septic tank & tile drain field Type latrine None Freeze - Pressure Tanks Fin. Floor El. 52.00 REFERENCE: Reference of site Mean Low Water Reference of instrument axis None (Type and Capacity of Grane None where

126 - 32 - 0 - 2 2 2 2

INSTRUMENTS & EQUIPMENT Type of observing inst. None DATA TRANSMISSION: Type Telephone, Radio & Data Computor Date of transfer TIDE STATION: Give description of tide gauge DATUM POINTS: Give Forts from which visible applicable QUARTERS: Give stations served CABLE HUT: Give S.C. Type



rRoll roofing rl"Gypsum board

WAR DEPARTMENT

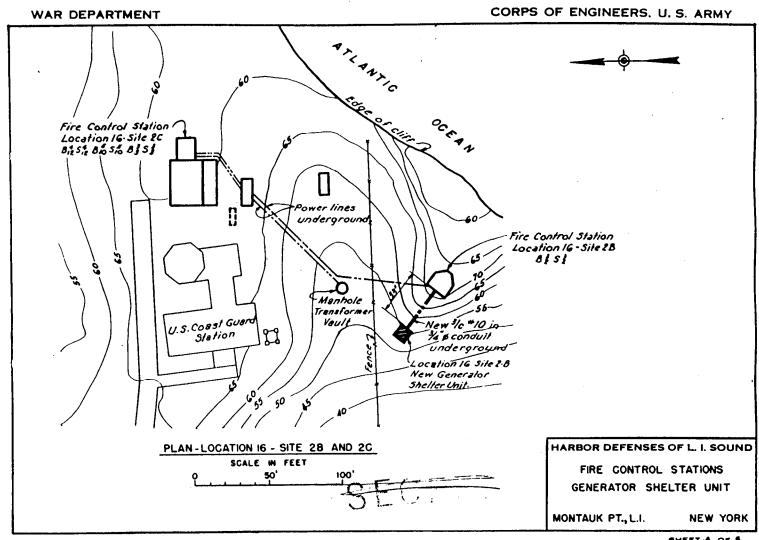
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CORPS OF ENGINEERS. U. S. ARMY

MONTAUK PT.L.I.

NEW YORK

DUCED AT THE NATIONAL ARCHIVES



SHEET-4 OF 5

DOUCED AT THE NATIONAL ARCHIVES

WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY CORRIDOR SECTION Z-Z SECTION Y-Y SECTION X-X POWER ROOM HEATING SYSTEM HARBOR DEFENSES OF NEW YORK BATTERY DUNN NO.113 (16") CENTRAL TRAVERSE MAGAZINE CAMP HERO L.I. **NEW YORK**

Nature & Cost of Additional Repairs & Modifications (Battery No. 112) 1944 - Power Room Heating This project consists of the installation of oil fired hot water boiler, induced draft fan. 4 unit heaters and necessary piping. 3 new closures to isolate heated areas as follows: Power Room, Dehumidifying Equipment Room, Latrine, Muffler Gallery, Water Cooler Room and Corridor for Battery No. 112.....\$ 2,502.08 FS 1278 1944 - Ordnance Switchboard Connections This project sonsists of connection of outside distribution feeders, commercial power supply and Battery wiring to Ordnance Switchboard. Lighting facilities for Switchboard.\$ 1,371.28 1944 - Additional Dehumidification System This project consists of installation of 2 self-contained dehumidifying units with 3 H.P. compressor. Necessary wiring, ductwork, condensate piping and closures for corridors......\$10,210.00

1-14-3 C

SECRET

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(1)

Station & Plotting Switchboar

Manufacturer

Arsenal 1943

Arsenal 1945

440 V

Gen.E

440 T

Type

Type

Watertown

Watertown

*****2 Systems Using Carrier 7K3 - 3 Ton Compressors 3902 Conditioners + 3HP Dehumid, units

43

Model Serial No.

3

6 Acres 6 13617 HATCHOR DEFELSES OF LONG ISLAND SOUND. REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS PORT- CAMP HERO, L. I., NEW YORK (Butteries) BATTERY NO. 112 No. of Gurs 2 Caliber 16" Carriage BARBETTE GENERAL: 23 Merch 1942 UTILITIES (Contid.) Battery commended 6 June 1943 LLECTRIC POWER Battery completed Sources of Commercial & Engine Generator. Cost to date of transfer \$1,369,528.61 Project_270 Procured & installed by (OCE or ORD). Materials of construction Reinforced Concrete Characteristics: Voltage ** Ac or BO ... Ph.s. . 36. Battery new or modernized lio. of units and canacity 3 - 375 XYA..... Max. K.V. required for utilities ***72 (If modernized give detailed statement on reverse side) Max. K.W. required for non-battle conditions 72 Trunnion elevation in btry. El., 81.75 M.L.W. ... Commercial nower provided (yes or no) Yes Capacity 75 I Datum plane Hean Low Water Auxiliary power unit provided (yes or no) No Capacity Type of lighting fixtures Commercial Standard - CSP UTILITIES: Dehumidifying Unit..Make and capacity **** WATER SUPPLY Rooms Tet or DryDry Alternate source None How ventilated Vent shafts (Latrines) Exhaust fans (Room Size of Main 6" Transite How heated Oil Fired Forced Hot Water-Unit Heaters ... SEWER Type Telephones Connected to sewer Yea. (Reservation System)..... Type of Disposal Septic Tank & Chlorination. Type of Latrine Flush Type REMARKS *Ragine Generator procured & installed by ORD.

Commercial Power Facilities installed by O.C.B 450/208/120 Volts. *** Includes Lighting & Power in Reservoir

ARMAMEI T

Manufacturer

Factory, N.Y.

sethlehem Steel

.S. Naval

Co.

Serial No.

92

73

Model

Mark II

Mounted

Yes

Type

Bar-

Ber-

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bette

Emplacement

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2

Cal.

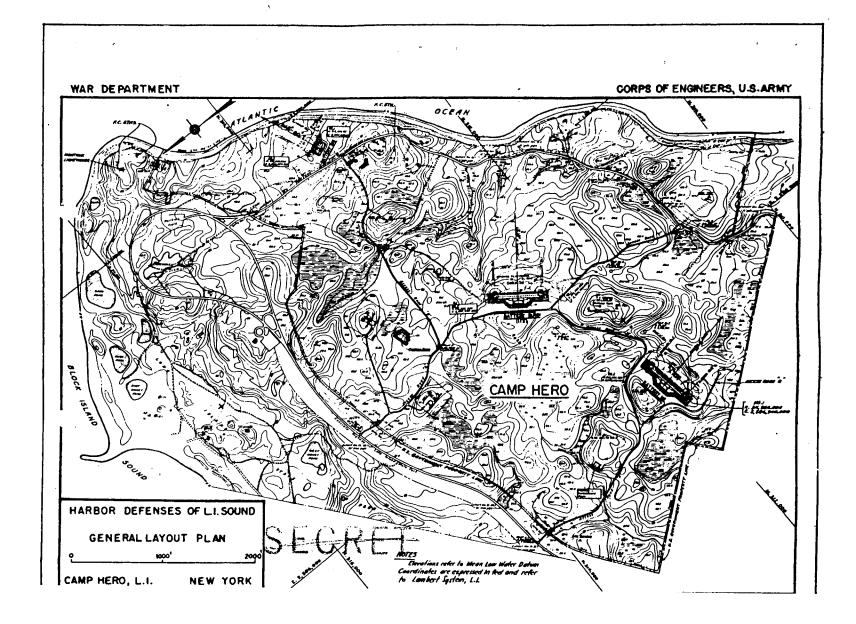
16"

16*

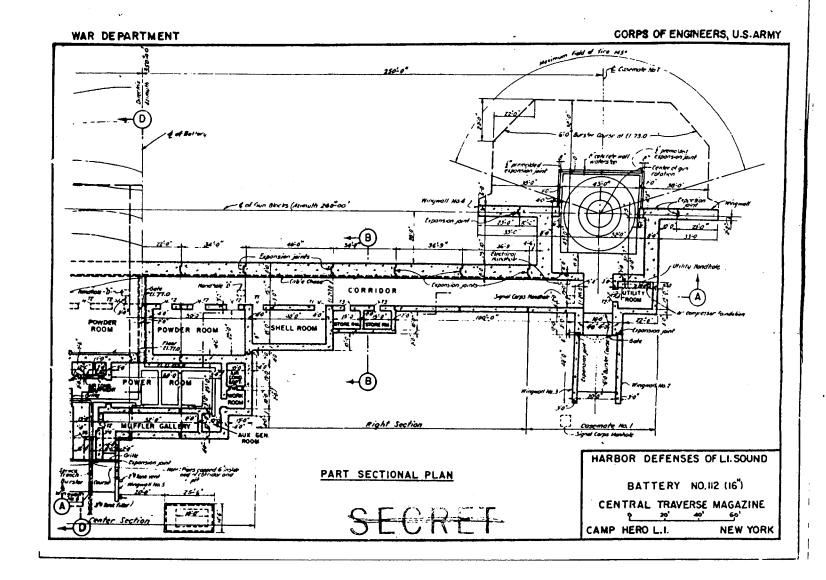
Length

681

681



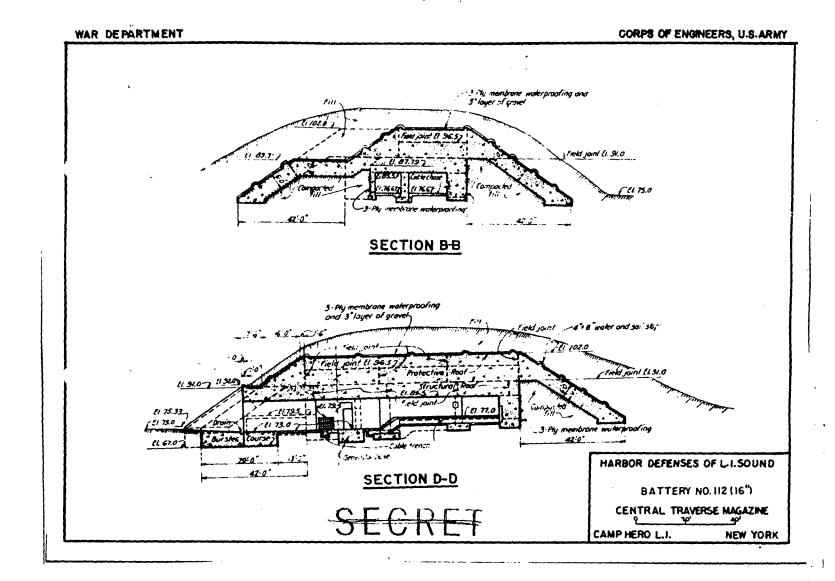
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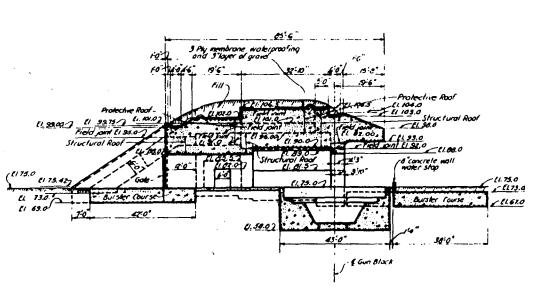
Authority AMD 73502C By JW MARA Date 10-8 WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY 290'0" Sectric Marries 8 7 Coken Soon Elevations refer to Mean Tide (evel Datum Courtingles are in feat and refer to the Lambert Sustain. HARBOR DEFENSES OF LL SOUND BATTERY NO. 112 (167) CENTRAL TRAVERSE MAGAZINE 9 25' 69' 75' 190' 625' CAMP HERO LI. NEW YORK

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UCED AT THE NATIONAL ARCHIVE



CORPS OF ENGINEERS, U.S.ARMY



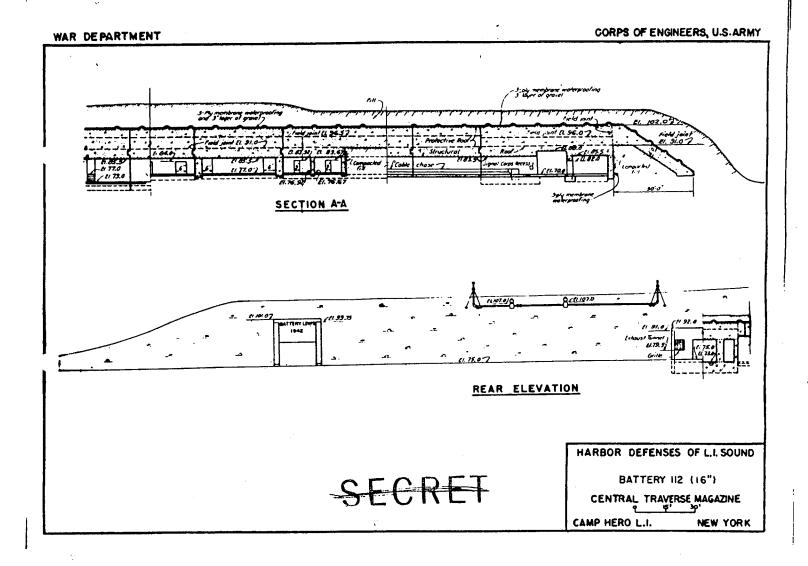
SECTION C-C

SECRET

HARBOR DEFENSES OF LASOUND

BATTERY NO.112 (16")

CENTRAL TRAVERSE MAGAZINE



DECLASSIFIED
Authority AMA 735026
By July Hara Dete 20-8

WAR DEPARTMENT CORPS OF ENGINEERS, U.S. ARMY E1. 75,00 -3 drain pipe PLAN PLATFORM NO.1 AS SHOWN PLATFORM NO.2 OPPOSITE HAND SCALE [11.60.54Z 4-3" Power conduits
2-spares to electrical
bandhole HARBOR DEFENSES OF L.I. SOUND Migh munt of guller El. 75.00 BATTERY NO.112 (16") FIRING PLATFORMS CAMP HERO, L.I. NEW YORK

CORPS OF ENGINEERS, U.S.ARMY WAR DEPARTMENT 50:11. 6" & Curb plate 7 E174625 EL. TO.TI EL. TROZ Inside circle bolt ALTIASE Julside circle bolts El 70.67 [] C'74004 Field joint EL 70.67 X 87, 63.34 El68.009 Gof Reys Slope floor to Field joint #1.605 EL 38.007 16-30 60 8 keys uniformly spaced I't Brass rod 6 long, top flush with finished flow. Purch morked for exact center of gun black HARBOR DEFENSES OF L.I. SOUND SECTION MM BATTERY NO. 112 - (16") FIRING PLATFORMS CAMP HERO, L.I. NEW YORK

DECLASSIFIED
Authority AMAD 735026
By 56 HARA Date 20-8

CORPS OF ENGINEERS, U.S.ARMY WAR DEPARTMENT MUFFLER GALLERY PLAN HARBOR DEFENSES OF L.I. SOUND BATTERY NO. 112 (16) CENTRAL TRAVERSE MAGAZINE POWER ROOM HEATING SYSTEM NEW YORK CAMP HERO L.I.

IDDUCED AT THE NATIONAL ARCHIV

CORPS OF ENGINEERS, U.S.ARMY WAR DEPARTMENT SECTION ZZ SECTION Y-Y SECTION X-X POWER ROOM HEATING SYSTEM HARBOR DEFENSES OF L.L. SOUND BATTERY NO. 112 (16") CENTRAL TRAVERSE MAGAZINE CAMP HERO, LJ. **NEW YORK**

2 Systems using Carrier 7K3 - 3 Ton Compressors 2 39Q2 Conditioners. + 3 H.P.Dehumidifying units in

28

27

Manufacturer Meter

Arsenal 1945 Gen.

Arsenal 1945

atertown

Matertown

440 Y.

Elect.

Induct

Motor-Type 5

Type Model Serial No.

Berbette M4

(baccerica)	HAMBOR DEFENSES OF LONG ISLAND SOUND- PORT CAMP HERO, L. I., NEW YORK BATTERY DUNN No. of Gars 2 Caliber 16" Carriage Barbette
Battery commenced 23 March 1942 Battery completed 5 June 1943 Date of transfer 12 January 1944 Cost to date of transfer \$1.369.528.61 Project 270Fundanterials of construction Reinforced Concrete Battery new or modernized (If modernized give detailed statement on reverse side) Trunnion elevation in btry. El.85.73 M.L.W. Datum plane Mean Low Mater	UTILITIES (Contid,) ELECTRIC POWER Sources of Commercial & Engine Generators
WATER SUPPLY Source of	Type of lighting fixtures Commercial Standard - CSF Dehumidifying Unit. Make and capacity Rooms Tet or Dry How ventilated Vent shafts(Latrines) Exhaust fans(RECAT) How heated Oil Fired Forced Bot Water - Unit Heaters DATA TRANSMISSION Type Telephones REMARKS *Commercial power procured and installed by O.C.E. Generators by Ordnance.

ARMAMEI.T

Manufacturer

Midvale Steel

Ordnance Co.

Midvale Steel

Ordnance Co.

**450/208/120

Mountod

Yes

main corridors.

F5 12.189,496,1378,1434

Cal.

16"

16"

Length

681

68 1

Model

Mark 1

MI

Serial No.

45

Emplacement

1

2

DECLASSIFIED
Authority AMD 75503C
By Jed HARA Date 10-8

WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY Disvertions retor to Montain Water Datum Coordinates are in feet and retor to the Lambort Systembre &J. HARBOR DEFENSES OF L.I. SOUND LEGENQ BATTERY DUNN (NO.113) (16") CENTRAL TRAVERSE MAGAZINE CAMP HERO L.L. NEW YORK

NCED AT THE NATIONAL ARCHIVES

Nature & C.st of Additional Repairs & Modifications (Battery Dunn)

1944 - Power Room Heating

This project consists of the installation of oil fired hot water boiler, induced draft fan.

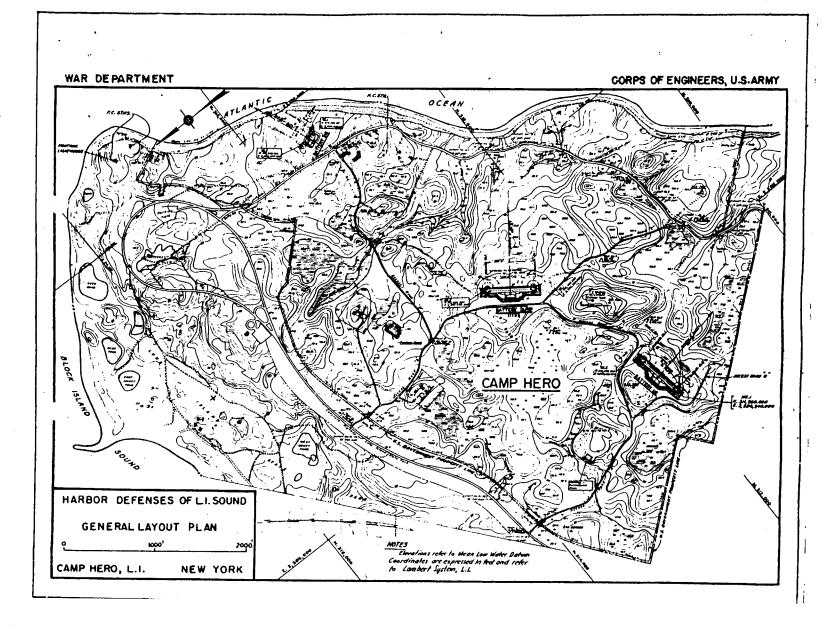
4 unit heaters and necessary piping.

3 new closures to isolate heated areas as follows:Power Room, Denumidifying Squipment Room, Latrine, Murrler Gallery, Nuter Cooler Room and Corridor for Battery Dunn. \$2,502.08

1944 - Additional Dehumidification System.

SECRET

S-01 ets O ARAH WC VB





CORPS OF ENGINEERS, U.S.ARMY WAR DEPARTMENT HARBOR DEFENSES OF L.I. SOUND PART SECTIONAL PLAN BATTERY DUNN (NO.113) (16") CENTRAL TRAVERSE MAGAZINE CAMPHERO LI. NEW YORK

X1...

DUCED AT THE NATIONAL ARCHIVES

WAR DEPARTMENT GORPS OF ENGINEERS, U.S.ARMY re concrete wall E1.78.0-30.0 € Gun Block SECTION C-C HARBOR DEFENSES OF L.I. SOUND BATTERY DUNN (NO.113) (16") CENTRAL TRAVERSE MAGAZINE CAMP HERO L.I. NEW YORK

DECLASSIFIED
Authority AMD 73502C
By JW HARA Date 20-8

WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY -3 Ply membrane waterproofing and 3"layer of grovel Steld joint U 36.0 SECTION B-B HARBOR DEFENSES OF L.I. SOUND SECTION D-D BATTERY DUNN (NO.113) (16") CENTRAL TRAVERSE MAGAZINE

LED AT THE NATIONAL ARCHIVES

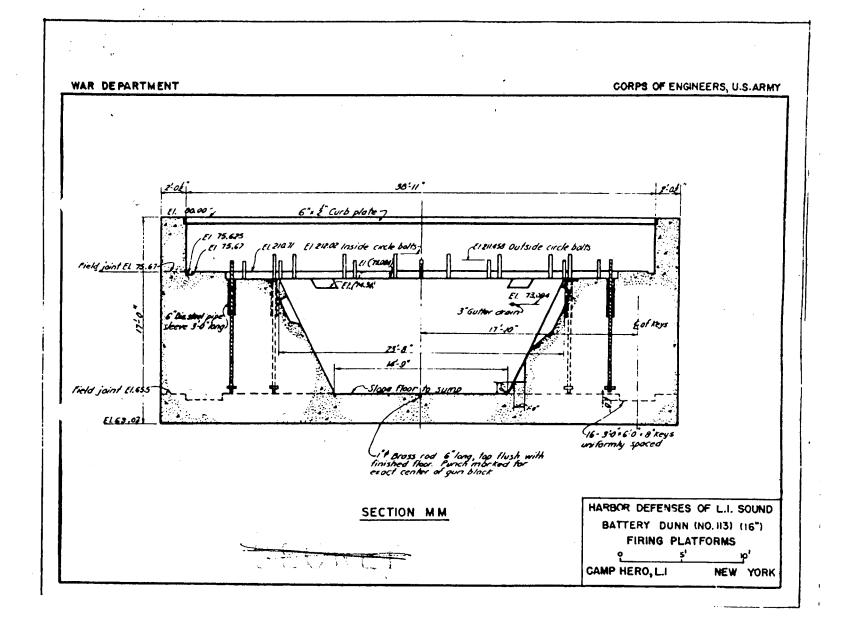
CORPS OF ENGINEERS, U.S. ARMY WAR DEPARTMENT SECTION A-A REAR ELEVATION HARBOR DEFENSES OF L.I. SOUND BATTERY DUNN NO.113 (16") CENTRAL TRAVERSE MAGAZINE SECRET CAMP HERO L.I. NEW YORK

DECLASSIFIED
AUTHORY AND 735036
By Jew Hara Gire 10-8

CORPS OF ENGINEERS, U.S. ARMY WAR DEPARTMENT El. 80.0 45° Jasam drain 40.2013 PLAN PLATFORM NO. 1 AS SHOWN PLATFORM NO. 2 OPPOSITE HAND SCALE -4-3" fower conduit; 2-spaces to electrical handhole EL. 80.0 HARBOR DEFENSES OF L.I. SOUND Migh fount of gutter BATTERY DUNN (NO.113) (16") 2-2" conduits for Signal Corps FIRING PLATFORMS CAMP HERO, L.I. NEW YORK

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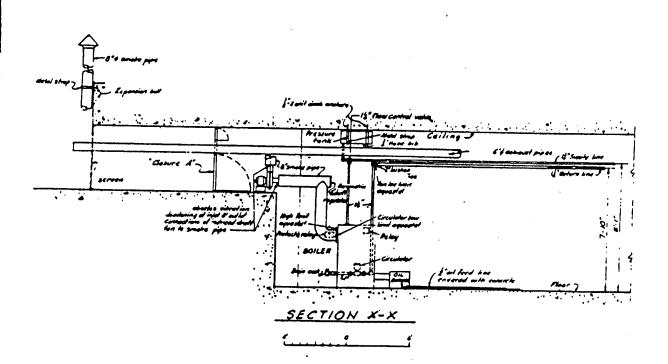
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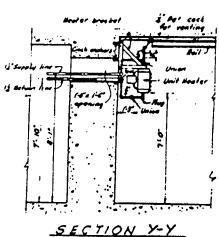


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Authority AMD 735036
By JW IMEN DEE 10-8

WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY PLAN HARBOR DEFENSES OF L.I. SOUND BATTERY DUNN NO.113 (16") POWER ROOM HEATING SYSTEM CENTRAL TRAVERSE MAGAZINE CAMP HERO 1.1. NEW YORK

SED AT THE NATIONAL ARCHIVES





POWER ROOM HEATING SYSTEM

BATTERY 216 (6")
CENTRAL TRAVERSE MAGAZINE

CAMP HERO LI.

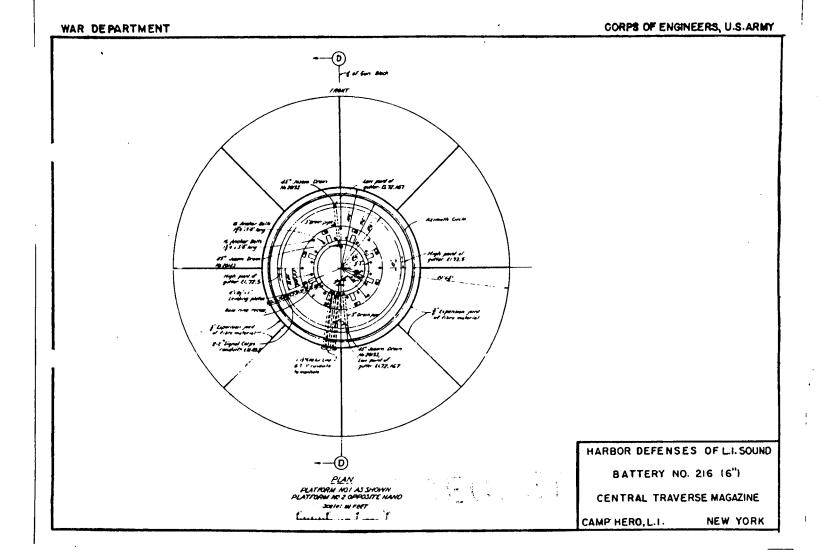
NEW YORK

WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY POWER ROOM has d at l'ature Acco room has distribute their CORRIDOR HARBOR DEFENSES OF L.I. SOUND BATTERY 216 (6') PLAN CENTRAL TRAVERSE MAGAZINE POWER ROOM HEATING SYSTEM CAMP HERO LI. **NEW YORK**

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SECTION CONTRACTOR OF SECTION SECTION

SUCED AT THE NATIONAL ARCHIVES

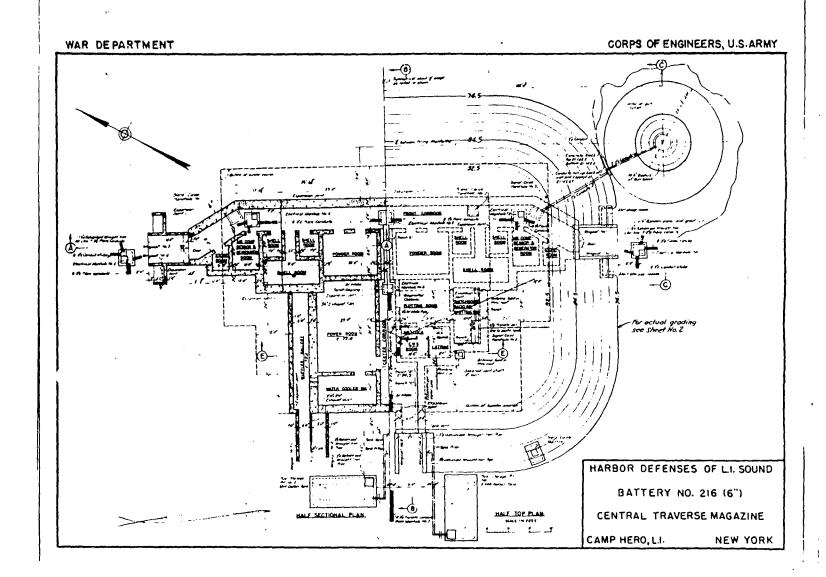


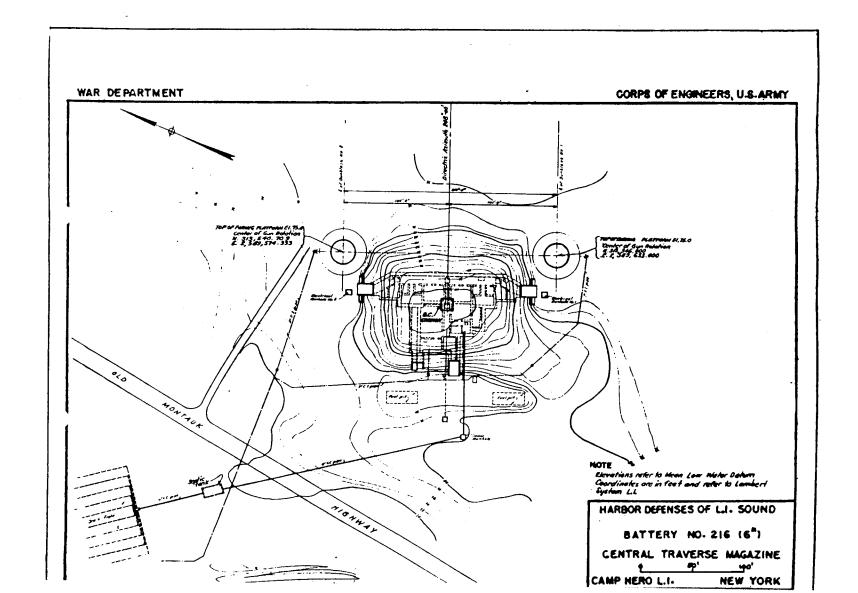
WAR DEPARTMENT CORPS OF ENGINEERS, U.S.ARMY of Gun Rotation Line of Fill 82.57 Concrete Block Ground Surface 7 rate i Storage Recess SECTION C-C SCALE IN FEET HARBOR DEFENSES OF L.I. SOUND BATTERY NO. 216 (6") CENTRAL TRAVERSE MAGAZINE

WAR DEPARTMENT - CORPS OF ENGINEERS, U. S. ARMY Ventilator shaft -18" vent pipe 14"pipe for gasproof vents Power Room floor slab Power Room excavated to El. 69 0 SECTION E-E HARBOR DEFENSES OF L. I. SOUND BATTERY NO.216 (6") CENTRAL TRAVERSE MAGAZINE CAMP HERO, L.I NEW YORK

CECLASSIFIED
Authority AMD 73502/
By JW HARA Date 10-8

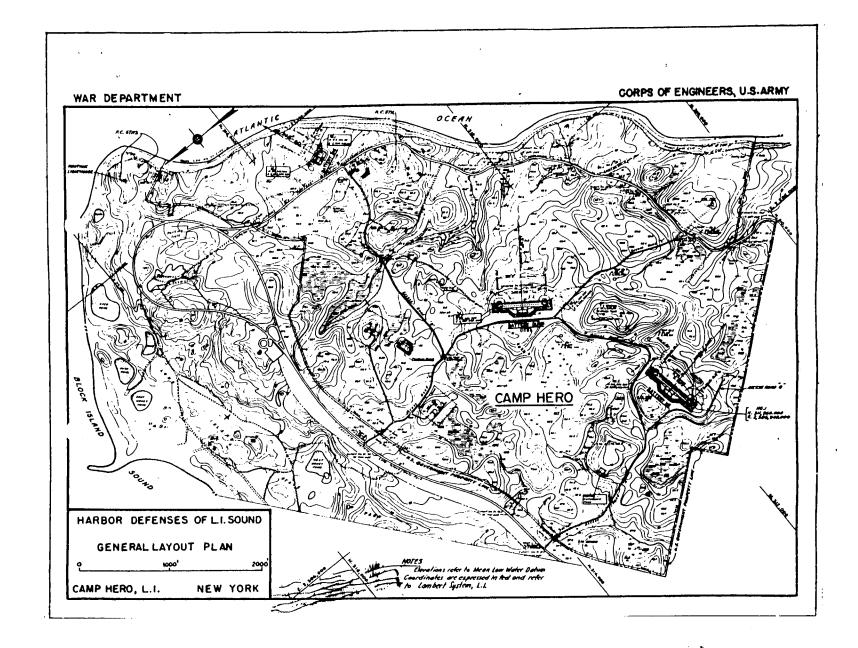
CORPS OF ENGINEERS, U. S. ARMY WAR DEPARTMENT HALF ELEVATION SECTION A-A HARBOR DEFENSES OF L. I. SOUND BATTERY NO. 216 (6") CENTRAL TRAVERSE MAGAZINE CAMP HERO L.I. NEW YORK





The Mark Adv. or affaor to the grant plants of the first section .

SOUCED AT THE NATIONAL ARCHIVES



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS (Batteries)

Corrected to 4 may 1945

Part I

HARBOR DEFENSES OF LONG ISLAND SOUND PORT- CAMP HERO, L. I. NEW YORK BATTERY No. 216 No. of Guns 2... Calibor 6" Carriage Barbette

GENERAL: 26 May 1942 Battery commensed Battery completed 18 June 1943 12 January 1944 Date of transfer Cost to date of transfer \$198,008.51 steriels of construction Reinforced Congrete Battery new or modernized New (If modernized give detailed statement on reverse side) Trunnion elevation in btry. El. 78.70 M.L.W..... Datum plane Meen Low Water..... UTILITIES: WATER SUPPLY None Alternate source Size of Main 6" Transite SEWER Connected to sewer no Type of Disposal Septic tank & drain field...... Type of Latrine Plush Type

(Cont'd,) UTILITIES ELECTRIC POWER

Sources of Commercial & Generators Procured & installed by (OCE or ORD).

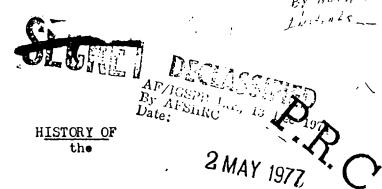
Characteristics: Voltage 50 Ac Phase 3 No. of units and capacity 3 - 187 KVA each Max. K.V. required for utilities 37.5 KYA Max. K.W. required for non-battle conditions 25 KVA Commercial power provided (yes or no)Yes Capacity 45 KVA Auxiliary power unit provided (yes or no) No Capacity Type of lighting fixtures Commercial Standard - CSF Dehumidifying Unit. Make and capacity Carrier 50-M-4** Rooms Wet or Dry Dry (Except Powder & Shell Rooms) How ventilated Vent Shafts & Doorways. How heater I rived Forced Hot Water-Unit Heaters DATA TRANSHISSIN Type Telephones.

REMARKS

Generators by Ordnance; Commercial Power by O.C.E. **3 Ton self contained conditioner (for Plotting Room

Emplacement	ARMAME T										
	Cal.	Length	Model	Serial No.	Manufacturer	Mounted	Тура	Model	Carriag Serial No.	es Manufacturer	Motor
1 2	6"	310"	1903	31	Watervliet Arsenal 194		Barbeti	e MJ		Wollman Eng. Co. 1943	Size 5 Type B
3 (6"	2104	A2		Watervliet Arsenal 1943	Yes	•	-		Wellman Eng.	
:	:	ı	ł		1		ì	i	•		Type B

Chamber Spend



773rd AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero, Montauk, Mew York

FOR THE PERIOD

(1 January -- 31 January 1951)

CHAIN OF COMMAND

26th AIR DIVISION (DEFENSE)

EASTERN AUR DEFENSE FORCE

AIR Defense

CONTINENTAL AIR COMMAND

UNITED STATES AIR FORCE

COMPILED BY:

APPROVED BY:

WILLIAM E..MOORE Captain, USAF Historical Officer EMANUEL A. PELAEZ Capt., USAF Commanding

2 MAY 1977

p-271A



CHAPTER I. ORGANIZATION AND MISSION

During the reporting period 1 to 31 January, 1951, the 773
773rd Aircraft Control and Warning Squadron remained stationed at Camp Here, Montauk, Long Island, New York. There was no change in the assigned mission of the Squadron and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division. Electronic and Communications equipment was operational for the entire period and no major difficulties or breakdowns were encountered.

On January 25th Major Kelley and Lt Agins, 26th Air Division, and Captain Fields, 503rd AC & W Sq, arrived at the squadron for two days TDY on matters pertaining to Air Defense Operations. A more detailed account of their visit will be found in Chapter VII.

On January 26th Major Conner of the 69th AA Battery, Ft. Totten, N.Y. visited the Squadron and discussions with Squadron officeRs were conducted concerning policies to be set up, facilities available at Camp Here etc, for the AA training battery to be located in the Squadron area. A permanent cadre will be quartered at Camp Here and continuous training will be conducted for Regular Army AA personnel. Buildings unused by the 773rd AC & W Sq will be made

SECKET



available to the 69th AA Battery and they will begin their training when Battery equipment arrives at Montauk. The full cooperation of the 773rd was assured the 69th AA Battery.

During the month Captain Yaworsky and Captain Winters, 26th Air Division Controllers made an inspection of operations. Air Defense matters and operations problems were discussed with the Squadron duty controller.

CHAPTER LL

PERSONNEL AND ADMINISTRATION

The critical shortage of officer personnel as previously reported was somewhat alleviated by the assignment during the month of 3 officers. One officer was transferred during the month. However, officer strength continues well below that authorized for the Squadron and still urgently needed are an Adjutant, a Supply Officers and Controllers Two Controllers were assigned which helped offset the less of the Chief Controller transferred the first part of the month. Airmen strength increased slightly during the menth and there were no critical shortages of skilled SSN's.

Authorized strength for the squadron is 16 officers and 179

Airmen. Actual strength of the Squadron at the beginning of the month was as follows:

OFFICERS 8 (White) AIRMEN 163 (White- 150) (Colored 13) 8.30 6.

Document E-6 will be forwarded when new originals are obtained from our NCR contractor

CLASSIFIED SECRET

By Auth. Squadron Comdr.

773d AC. Squadron

Dately Mar 51 Initials EC?

SECRET BISTORY OF

49

##3D AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero, Montauk, New York

FOR THE PERIOD

(1 February -- 28 February 1951)

CHAIN OF COMMAND

26TH AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE FORCE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED BY:

APPROVED BY:

WILLIAM E. MOORE CAPTAIN USAF HISTORICAL OFFICER EMANUEL A. PELAEZ MAJOR USAF COMMANDING

SECRET

made. In visiting and inspecting each section, discussions were held with the various section heads and local recommendations were made by the inspecting Officers. A thorough analysis of operations was made and problems pertaining to Air Defense matters were discussed at length and many helpful suggestions and recommendations were a result of the visit. Certain recommendations concerning actual operations which have been adopted will be discussed in Chapter IV.

In the January History mention was made of the impending arrivial of Units of the 69th AE Battalion, Ft. Totten, N.Y. at Cump Hero. The first units arrived during the first week in February and practice firing started as soon as the 90mm AA guns had been positioned. Although weather hampered their operation, all batteries of the battalion were able to complete the required number of practice rounds by the 23d of the month. Facilities were not available to house the entire battalion, so two batteries.at a time bivouaced at Camp Hero, fired the required rounds and then recurred to Ft. Totten, making way for two more batteries. The batteries were thus rotated until all firing requirements had been met by the battalion. Tow target planes from Otis AFB and NAS Floyd Bennett were utilized forfiring problems for the 90's and radio controlled "drones" were targets for the multiple 50 caliber machine guns. Although there was no Official tie-up with the AA battalion and the 773d AC&W Squadron, lissen was established between Squadron

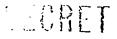
operations and the Battalion CP. The purpose and handling of this liason will be discussed in more detail in the operations Chapter.

The 773d's Squadron area is now officially an Army area and will be completely taken over by the Army as soon as the Squadron moves to its new site, still under construction. At this time there is no indication of any official operational association with the 69th AA Battalion. The site now occupied by the 773d will be used as a training area only by the Army. It has not been possible to determine definite Army Plans for future practice firing. The only Army personnel remaining at Camp Hero on the 28th of Feb was a caretaker force. Before pulling out for Ft Totten, however Colonel Kerr, Commanding Officer of the Lattalions, indicated that batteries of 120mm AA guns would be arriving at Camp Hero late in March or early in April to conduct practice firing. Future activity of the Army at Camp Hero will be reported in subsequent histories.

CHAPTER II

PERSONNEL AND ADMINISTRATION

The assignment of five Officers during the reporting period substantially relieved the critical shortage of Officer personnel as noted in previous histories. Two Controllers, Two Communication Officers and one Radar Officer were assigned, bringing Officer strengh up to 14. Two of the five new Officers were assigned but were not present for duty. One Officer was assigned but orders will be revoked although he was



Space. At the suggestion of Major Gordon and Captain Janek,
26th Air Division, the tote board was eliminated in the preparation of the board for the new grid and a simplified system of
discreping the information formerly put on the tote board has
been put into effect. This follows the sistem in use at Roslyn
and other stations.

During the time the 69th AA was in operation, a direct line from Squadron Operations to the AA CP was utilized for close liason. When batteries were ready to practice fire, the C.P. called operations for clearance. Scopes were checked to see if any A/C might be entering the firing area but in giving clearance the 773d was not assuming responsibility for A/C in the area. Operations also notified CAA, the ADCC and other stations when firing was being conducted.

CHAPTER V

· COMMUNICATIONS

Communications equipment performed exceptionally well during the reporting period. Six noise limiter kits were received and installed in BC-639-A VHF receivers and the installation of noise limiters in all VHF receivers has now been completed.*4

The equipment performed very well. Two new VHF antennas were received during the month and installed for use with the SCR 624 radio sets.*5 The 624s have never proved very satisfactory

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[#]Age Monthly electronics field engineers report-Incl 1 Part II *5 Monthly electronics field engineers report Incl 1 Part II & III Page 1 & 2.

evident. The new Squadron area is fast nearing completion and with the exception of the operations building and lack of mess equipment for the new mess hall the majority of the buildings will be ready for occupancy in few weeks time. Definite date for moving has not been set but everything indicates that the Squadron will have to move into buildings in a piecemeal fashion as they are completed and the Squadron will undoubtedly have to live in the new area and mess and operate in the present area for some time to come. The present Squadron area has already been turned over to the army and they are most anxious to be able to make use of the buildings now occupied by the Air force. Movement to the new area had not started during this reporting period.

CHAPTER IX

INTERNAL SECURITY

A general tightening up of all security was effected during the period reported. Squadron Air Police were intensively instructed throughout the month by their section head in security measures and the effectiveness of this emphasized program was noticeable. The Air Police Force consists of 14 Airmen and the APs work 8 hour shifts with the same hours scheduled as all other sections, with the exception of administrative personnel. The AP shifts are from 8 AM to 1600--1600 to 2400--0001 to \$800etc.

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HISTORY OF

the

773rd AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero, Montauk, New York

FOR THE PERIOD

(1 March -- 31 March 1951)

CHAIN OF COMMAND

26th AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE FORCE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED BY:

WILLIAM E. MOORE CAPTAIN USAF HISTORICAL OFFICER APPROVED BY:

EMANUEL A. PELAEZ WAJOR USAF COMMANDING

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On March 13th several Officers from ADC and EADF conducted an acceptance inspection of the new Squadron area. Participating Officers were Lt. Colonel George E. Hunsucker, Captains Allen, Smith and Hoffman of ADC and Lt Colonel Charles H. Price, Najor J.E. O'Roole of EADF. Also visiting on the 13th and 14th was Captain Graham C. Beacum, 26th Air Division, in connection with Air Installations in the new area.

On March 22d, Lt. Barrett R. Agins, 26th Air Division, wisited Squadron Operations and discussed ECM with the Senior Director and Director on Duty. Lt. Agins also assisted in an ECM demonstration by a B-25 aircraft on the same day.

Lt. Thomas R. Michael arrived at the Squadron late in the Month and discussed matters pertaining to medical administration with the Commanding Officer and the Squadron Medical section.

On Morch 27th Major Eugene Farray, 26th Air Division Chaplin, arrived for a visit of several days.

Captain Peter J. Filorimo, 26th Air Division Identification
Officer, visited for 3 days beginning March 29th and inspected
indentification procedures. Various recommendations were made
and adopted during the course of his visit.

As re-orted in the February History, it was expected that the 69th AA Battalion would again be active at Camp Hero towards

^{#2-}See Chapter VIL on training for detail

^{#3-}See Chapter X on Special Subjects for Detail #4-See, Chapter IV on Operations for detail.

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the end of March. On March 30th units began arriving at Camp Hero but as of the 31st of March only one battery of 90mm anti-Aircraft guns had arrived and practice firinghad not commenced. It is anticipated that additional batteries of the battalion will arrive for practice firing and all actual firing activity etc., will be covered in subsequent histories.

CHAPTER II

PERSONNEL AND ADMINISTRATION

Assignments of Officer and Airman personnel during the month, considerably relieved the shortages reported in previous months! histories.

The assignment of an Adjutant has offset one of the most critical shortages and has greatly relieved the pressure placed on the Administrative Section in general. Although strength figures as of the 31st of March show that the authorized number of Officers are assigned, three of these Officers were not present for duty, with two Officers in school and the orders being revoked on the third. One of the Officers in school is a controller and after his 16 weeks TDY will undoubtedly be reassigned. His loss will be offset by the other Officer now in school who is assigned and on completion of the Controllers course will report for duty. At the present time there are four directors and a senior director available for duty which indicates the need for the assignment of additional 1014s. The radar and communications sections

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and the only personnel who did not receive training were men on leave, men hospitalized and men AWOL or in the hands of the authorities. The subjects presented closely followed the yearly forecast. A security period scheduled was taken over by Captain Smith, 26th Air Division, who thoroughly discussed general security measures and division security procedures.

machine guns as part of the Ground Training for the month. The subjects presented and names of personnel attending and names of instructors are indicated on the attached Training Forecast for the period March 1 to March 31st which has been completed.

Lt. Agins, 26th Air Division, spent a day with the Schuddron and assisted in a demonstration of Airborne jamming. Two B-25s participated in the jamming and all operations and radar maintenance personnel, in addition to erews on duty, witnessed the demonstration. CW noices, Window type and VHF jamming was demonstrated Operators were able to effectively detect and track both aircraft through the jammed areas.

The first training manuals for the new individual training program were received on the last day of the month and the required lessons for all ACSW personnel are to be started immediate-

#19-Coound Training Schedule From 1 March to 31 March 1951 -Exibit 3.

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HISTORY OF

the

773D AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero, Montauk, New York

FOR THE PERIOD

(1 April --- 30 April 1951)

CHAIN OF COMMAND

26TH AIR DIVISION (DEFENSE)

EASTERN AIR DEFENSE FORCE

AIR DEFENSE COMMAND

UNITED STATES AIR FORCE

COMPILED BY:

WILLIAM E. MOORE CAPTAIN USAF HISTORICAL OFFICER

APPROVED BY:

EMANUEL A. PELAEZ MAJOR USAF COMMANDING

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attended by members of the inspection team and the Commanding Officer and Section Head Officers of the Squadron. Discrepencies found in the various sections were discussed and a general rating was determined for the Squadron.

As reported in the March History, units of the 69th AA

Battalion arrived at Camp Hero on March 30th and 31st and proceeded to set up for a two week period of practice firing. One
battery of 90 mm AA guns was set up and practice firing commenced on May 1st. A field phone was installed in the Squadron Operations room connecting Squadron ops with the AA CP and clearances were requested by the AA and given by operations before
firing began. Practice firing continued until two Batteries
had completed firing requisites. On completion the battery
returned to Fort Totten, leaving a caretaker force in the area.

CHAPTER II

PERSONNEL AND ADMINISTRATION

Additional assignments of Officer and Airmen personnel during the reporting period have brought Squadron strength close to that authorized under existing T.O. Three Officers were assigned and one Officer was transferred. The officer transferred had been assigned but had not been present for duty, and one of the newly assigned officers will not be present for duty until he begins and completes the Controllers Course at Tyndall Field. One Radar Officer and one Director were assigned and reported for duty during the

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HISTORY OF

773rd AIRCRAFT CONTROL AND WARNING SQUADRON

Cemp Hero. Montauk. New York

FOR THE PERIOD

(1 May --- 31 May 1951)

CHAIN OF COMMAND

26th AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE FORCE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED BY:

WILLIAM E. MOORE CAPTAIN USAF HISTORICAL OFFICER AEFROVED BY
TOURT W. DEVENISH
CAPTAIN USAF
COMMANDING

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ORGANIZATION AND MISSION

During the reporting period 1 May to 31 May 1951 the 773rd Aircraft Control and Warning Squadron remained stationed at Montauk, Long Island, New York. No change on the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Defense). Electronic and Communication equipment was operational for a greater part of the period on a 24 hour basis and only one major breakdown occured. *1

On May 8th General Minty accompanied by Colonel Murphy, 67th AAA

Battalion, Ft. Totten, M.Y., visited the Squadron. General Minty and Colonel Eurphy inspected Squadron operations briefly and the Colonel was given a short briefing on operational procedures. Following the visit to operations the visitors observed practice firing by a battery of 90 mm. anti
miroraft artillery, List AAA Battalion., Ft Totten, N.Y., and then proceeded to visit the new Squadron area. The Visitors returned to Division Headquarters late in the afternoon of the 8th.

Units of the 41st AAA Battalion arrived at Camp Hero from Fort Dix on the 4th of May and set up batteries of 90 mm guns for purposes of practice firing. Two batteries of battalion arrived the week of the 4th and two more batteries arrived the week following. During their stay strength maintained by the Battalion was approximately 300 men. When firing requisites had been met, the batteries received orders to proceed to a new duty station, Fort Hancock, New Jersey.

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On the 23rd of May the 536th AAA Battalion arrived from Fort Totten. The mission for the batteries of this battalion was practice firing of 120 mm anti-aircraft artillery, and it was anticipated that the firing roguisites would not be completed until early in June. As of the 31st of May approximately 500 men have been stationed at Camp Hero and a total of 750 men are expected to participate in the firing exercises. Firing activities have been coordinated with Squadron operations and a field phone connecting Operations with the AA Command Post was installed so that warning could be given of any aircraft entering the firing area to the AAA. Squadron Operations was notified prior to firing and when guns were secured. When firing has been completed the unites of the Battalion will return to Fort Totten.

On May 20th and 21st a total of 21 officers from the 118th Ftr Interceptor Squadron, Suffolk County Airport, visited Squadron Operations. Major Spencer, Commanding Officer of the Squadron, and Captain Hathaway. Squadron Operations officer, were among the visitors from Suffolk, as well as Lt. Simon, Communications Officer for the Squadron.*2

The move to the new Squadron area started on May 15th and the official address of the Squadron is now Montauk, not Camp Hero, Montauk, although operations and communications are still operating in the Camp Hero area. ...

CHAPTER II

PERSONNEL AND ADMINISTRATION

During the reporting period Officer strength increased slightly while *1 - See Communications - Chapter V for detail

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^{*2 -} See Chapter 4 for more detail

^{*3 -} See Chapter 8 for more detail

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Date 13 July 1951

HISTORY OF

the

773D AIRCRAFT CONTROL AND WARNING SQUADRON

Montauk, New York

FOR THE PERIOD

(1 June - 30 June 1951)

CHAIN OF COMMAND

26TH AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED I:

WILLIAM E MOORE CAPTAIN USAF HistoricalOfficer APPROVED BY:

EMANUEL A. PELAEZ
MAJOR USAN
Commanding

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CHAPTER I

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ORGANIZATION AND MISSION

During the reporting period 1 June to 30 June the 773d Air-Craft Control and Warning Squadron remained stationed at Montauk, New York. No change in the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Defense). Electronic and Communication equipment was operational for the entire period on a 24 hour basis and no major difficulties or breakdowns occured.

Hero late in the previous month, completed their firing requisites in the first week of the reporting period and personnel returned to Fort Totten with the battery of 120mm Anti-Aircraft guns which had been practice fired during this training period. At the time of departure for Fort Totten, the Army indicated that there would be no further firing at Camp Hero until the second weak of July, when they anticipate a return to the practice range with a full Battalion of 120mm Guns.

On the first of June, Major Adams, EADF Special Service Officer, and Captain Mucci, 26th Air Division Special Service Officer, visited the Squadron and conducted an investigation of Squadron Special Service facilities.

Colonel Hanford, of the Judge Advocate General's Office, EADF, and Lt. Simon, 26th Air Division legal officer, arrived at the Squadron for a meeting with the Commanding Officer.

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HISTORY OF

the

773D AIRCRAFT CONTROL AND WARNING SQUADRON Montauk, Long Island, New York

FOR THE PERIOD

(1 September - 30 September)

CHAIN OF COMMAND

26TH AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED BY:

WILLIAM E. MOORE CAPTAIN USAF Historical Officer APPROVED BY:

EMANUEL A. PELAEZ MAJOR USAF Commanding

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CHAPTER I

ORGANIZATION AND HISSION

During the reporting period 1 September to 30 September the 773d Aircraft Control and Warning Squadron remained stationed at Montauk, New York. No change in the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Defense). Electronic and Communications equipment was operational for the entire period on a 24 hour basis and no difficulties or breakdowns of major proportions occurred.

The 703d And Batralion which arrived at Camp Hero in August for practice firing departed on the 19th of September, and on the 20th of the month units of the 41st AAA Battalion arrived at the training site and began setting up for their firing period. At the end of the reporting period this battalion was still in the process of conducting firing problems. The 773d AC&W Squadron operations maintained close liason with the Command rosts of the battalions mentioned by means of a field phone so that air traffic could be cleared through the danger area when necessary, and that squadron operations could be advised of all firing activity.

A number of officers visited the squadron during the month conducting inspections of new area installations and for the purpose of visiting operations and discussing current operational and administrative matters.

CHAPTER VII.

TRAINING

The squadron Training Program for the month of September consisted of Ground Training and Technical Training. Squadron attendance at the four weekly programs was 77%, a drop of 4% in attendance under the previous months attendance figure.

The material covered in the programs presented closely adhered to the training forecast as prescribed by the 26th \$\frac{\psi}{2}10\$ Air Division.

During the month targets for qualification firing of the 445 automatic were set up and utilized and qualification firing of the 30. caliber carbine continued.

ECH Training for the month complied with the requirements prescribed by the 26th Air Division and attendance at these periods amounted to 84% of all Operations, Radar, and Communications personnel assigned to the squadron. Two demonstrations of actual electronic jamming were given during the month. Actual jamming, of course, affords personnel the greatest amount of practical experience in detecting and analyzing various types of jamming, and all operations personnel now assigned have witnessed at least one actual demonstration.

#10 - Honthly Training Forecast and Troop Training Report - Exhibits III and IV

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HISTORY OF

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773D AIRCRAFT CONTROL AND WARNING SQUADRON MONTROIR, New York

FOR THE PERIOD

(1 October - 31 October)

CHAIN OF COMAND

26th AIR DIVISION
BASTERN AIR DEFENSE
AIR DEFENSE GODAND
UNITED STATES AIR FORCE

COMPTIED BY:

ellan 7. Moore

WILLIAM E. MOCRE Captain USAF Historical Officer APPROVED BY:

MANUEL A. PELAPE

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ications facilities were wisited and current operational procedures and problems were discussed with squadron directors.

Captain Warwick and Captain Rielle, 26th Air Division, arrived on one day TDT at the equadron on the same date, 8 October, on matters pertaining to Squadron Supply.

On the 11th of the month Lt. Colonel Feggeler, new Commanding Officer of the 645th ACEW Sq., 26th Air Division, and Captain Jacobson, newly appointed Adjutant of that squadron, spent a day visiting the squadron and discussing squadron facilities and problems with the Commanding Officer.

Three officers of the 103d Wings Medical Group, Suffolk, visited the squadron on the 17th of the month. The officers were Captains Berquist and isndrigan, and Lt Watt, and Squadron Medical Facilities were inspected.

Lt Kelly and Pfc Serafin, 103d Wing Air Installation Squadron spent a day at the squadron on the 19th of October working with the squadron Air Installation Officer on new area installations.

Mr B.T. Marshall of the Bendix Corporation arrived on the 23d of the month for a two weeks stay for the purpose of assisting in the installation of the new FPS-3 radar.

On the 27th of the month Captain C.H. Murphy and Cpl F. P. Coleman, 28th Strategic Recommaissance Wing, arrived at the squadron for a two day stay. The purpose of this visit was to take scope pictures of ECM activity which was conducted by SAC aircraft.

CHAPTER I

ORGANIZATION AND MISSION

During the period reported, 1 October to 31 October, the 773d Aircraft Control and Warming Squadron remained stationed at Montauk, New York. No change in the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Def). Electronic and Communications equipment was operational for the entire period on a 24 hour basis and no difficulties or breakdowns of major proportions occurred.

The Alst ANA Pattalion completed their firing requisites during the past month and were replaced at Comp Hero by units of the 521st AAA. Firing by the 521st was conducted for the first two weeks of the month and on completion the Pattalion returned to Fort Totten and was replaced by the 715th AAA. This Pattalion set up their firing line and went into operation on the 25th of the month, and at the end of the reporting period were still practice firing at Camp Hero. Maison with the AAA outfits mentioned was maintained during these periods by means of a field phone connecting this squadron's operations room with the AAA Command Posts. Squadron Operations was advised of all firing activity.

It Colonel D. S. Spain and Majors C. R. Pischette, and R. P. Laughry, Headquarters 26th Air Division, arrived at the squadron on October 8th for a staff visit of the present squadron operations and the operations building in the new area. All radar and commun-

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7730 AOSH Squadron

Inits Date SUIO 5/

HISTORY OF

the

773D AIRCRAFT CONTROL AND WARNING SQUADRON Hontauk, New York

FOR THE PERIOD

(1 October - 31 October)

CHAIN OF COMMAND

26th AIR DIVISION
EASTERN AIR DEFENSE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED HI:

12

WILLIAM E. MOCRE Captain USAF Historical Officer APPROVED EX:

EMANUEL A. HELAEZ

Major

USAT

Commanding

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CHAPTER I

ORGANIZATION AND MISSION

During the period reported, 1 October 10 31 October, the 773d Aircraft Control and Warming Squadron remained stationed at Montauk, New York. No change in the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Def). Electronic and Communications equipment was operational for the entire period on a 24 hour basis and no difficulties or breakdowns of major proportions occurred.

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Chapter One

Organization and Mission of the 7734

During the period covered by this report, from Movember 1st, 1951 to and including Nevember 30th, 1951, the 773d Aircraft Centrel and Warning Squadren remained stationed at Hentauk, New York. We change in the assigned mission of the organization was offected and normal operations were conducted during the period reported in accordance with hours perscribed by the 26th Air Division (Defense.) Electronics and Communications equipment was eperational for the entire period on a twenty-four hour basis and no difficulties er breakdewas of major prepertiens occurred. The 715th AAA, reported on the October history, was still in training st the start of the menth and did not depart until Nevember 9th. They were replaced on the 12th of Nevember by the 245th AAA Battalien. It became increasingly difficult to manage to keep informed as to the plans of those units at Camp Nore, (e.g. whether or not it was mafe to vector aircraft through this area,) in as much as they me lenger menitered the field telephene line and it was necessary to use commercial lines to contact them. This involved considerable delay especially neticeable when sene flight requested information relative to flying in this vicinity. Effort is being made to reestablish the more effective liaison from the squadren eperations room via field telephone to the AAA command posts. The 245th departed on the 29th of Nevember and consequently there was no AAA erganization here for the end of the month.

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Chapter One

Organization and Mission

During the period covered by this report, from 1st December 1951 to and including 31st December 1951, the 773d Aircraft Control and Warning Squadron remained stationed at Montauk, New York. There was no change in the assigned mission of the organization and normal operations were continued in accordance with the hours prescribed by the 26th Air Division (Defense.) Electronics and Communications equipment were operational throughout the period reported on a twenty-four hour basis.

In the Army area of Fort Hero, here at Montauk, the 41st AAA Battalion arrived on the 1st of December. They remained until the 11th and meanwhile fired daily employing both towed targets and RCAT (radio controlled aircraft targets.) Once again it is necessary to point out that the liaison between these army units and our station is not effective; that is to say that the time needed to determine whether this area is or is not safe for aircraft missions through it is excessive due to the fact that the information is not automatic and the line between us is not monitored by the units firing. For the remainder of the month there was no further AAA activity at this station.

The month was marked by the visits from higher headquarters notably that of Major General Smith accompanied by Brigadier General Minty and Colonels McKinney, Beverly and Sebastian on the 12th. This was a staff visit during which all installations of our station were inspected by General Smith and his party.

HEADQUARTERS FIRST U.S. ARMY Information Section, Bldg. A-6 Governors Island, New York 4, N.Y. Tel: Whitehall 4-7700, Ext. 5136

14 January 1958

RELEASE NO. 15-58

FOR IMMEDIATE RELEASE

LONG ISLAND'S

GOVERNORS ISLAND, N.Y., 14 January....About 120 miles long, with an area of 1°23 square miles, Long Island, New York, has played a vital historical role as one of America's most heavily defended areas.

Geography has placed Long Island in a position of importance for three metropolitan areas in three states. Ever since New York, New Haven and Providence became important to this country, Long Island and its smaller islands have become militarily important to the three cities.

In the outer ring of an elaborate defense system around these three cities were eight military installations which have been vital cogs in the whoels of the American defense effort, and a key to the changing weapons and missions in the U.S. defense pattern.

Roading from north to south those installations were rich in history, tradition and legend, and yet often unknown to the residents of the area. In the north, Fort Mansfield, in Rhodo Island, was 60 acros in size. Fort Trumbull, Connecticut, had an area of 13 acros, 2 rods, 27 polos and 2 links according to the records. Fort Michie, on Great Gull Island, had an area of only 10 acros. Fort M.G. Wright, the "mother" for most of these posts had a total area of 334 acrosmost of Fischers Island. Fort Terry, on Plum Island, was the largest of the eight posts, totaling 797 acros. Fort Tyler, on Gardiners Point totals about 14 acros. Camp Wikoff, which was in the Fort Pond area, had the shortest life, but brief national fame. Camp Here, on the south shore of Long Island at Montauk Point was the most mysterious, the most recently active post and the most heavily camouflaged.

Fort Mansfield, situated on Napantree Point, near Watch Hill, Rhode Island, was part of an original coastal defense network of Long Island a ml Long Island Sound. Named in honor of Major General J.F. Mansfield, a veteran of the War with Mexico and the Civil War, the fort was built during the period of public concern preceding the Spanish-American War of 1898. Recognizing the importance of coastal defense guns at this point the federal government maintained the fort. In the early years of the First World War the Army sent Fort Mansfield the largest coastal defense guns it had.

After World War I, the federal government relaxed some of the vigil along the coasts, and Fort Mansfield was authorized for sale on March 4, 1923.

Fort Trumbull, of the acres, rods, poles and links was originally surveyed and established in 1775 about 12 miles from New London, Connecticut, at the mouth of the Thames River. Two forts were erected, one on each side of the river, designated as Forts Trumbull and Griswold. They were originally described as blockhouses with embankments. The first military action taken at the fort was in 1778 when the British sent Benedict Arnold sailing into Now London Harbor as a means of diverting some of the American forces from the more important campaign in Virtual. The British took Fort Trumbull with ease, and later continued on to take Fort Griswold, killing 120 of the 160 defenders of the post and setting all its buildings on fire.

In 1812 the embankments of Fort Trumbull had worn down to uncared for grassy mounds. The War of 1812 brought about a heaty reactivation of the installation, as well as the assignment of troops there. Although New London was threatened by attack many times, it was never actually invaded due Enryely to the strong defense of the harbor offered by Ford Crumbull, which was named after Govern & Jonathan Trumbull, Aide de Camp to General George Washington.

After the War of 1812 Fort Trumbull ran into cycles of activation and disuse. In 1861 the Civil War gave Fort Trumbull renewed importance to the federal government. All casements were readied, new armaments were brought in, the fence surrounding the installation was rebuilt, and Fort Trumbull assumed a role in yet another conflict.

After the Civil War Fort Trumbull was deactivated. In 1910 the federal government turned over the grounds and buildings to the Treasury Department for use by its Revenue-Cutter Service. The military history of Fort Trumbull ended, but the outer defense ring around the three metropolitan areas continued to grow.

Fort Michie on Great Gull Island in Long Island Sound, with 10 acres of land, was one of the smallest installations in the area. As part of the ceastal defense system of Long Island Sound, it lay off the northernmost tip of Long Island, with a commanding view of the waters of Block Island and Long Island Sound. It was named after 1st Lt. Dennis H. Michie who was killed at San Juan, Puerto Rico during the Spanish-American War. The military mission of this post was coastal defense.

The land where Fort Michie was erected was purchased in 1803 as a site for a light house. Its geographic importance became evident to the War Department in 1896 and it was taken over as a coastal defense installation. On June 6, 1949 Great Gull Island was conveyed to the American Museum of Natural History, which used the land as part of its public program. Today the island is posted as a bird sanctuary. Among the remains of the old fort still standing are the observation towers, clockhouses, gun emplacements and brick barracks. Also still intact are the underground tunnels which were used as passageways and ammunition storage points.

MORE

LONG ISLAND'S EASTERN SHIELD TAKE THREE

Fort H.G. Wright on Fischers Island in the Block Island Sound commanded the sound and Cardiners Bay to the south. It was named in honor of Major General Horatio G. Wright, a distinguished Civil War commander and Chief of Army Engineers from 1879-1884. The island has had hundreds of treasure seeking visitors, for legend has it that the notorious Captain Kidd buried booty on Fischers Island. To date no one has found any sign of the treasure.

The strategic importance of the island was first recognized in 1704 when a signal beacon was erected on Prospect Hill. The beacon was designed to warn the city of New London of an enemy attack. In 1898 the federal government purchased a large tract of land on the western end of the island for establishment of coast defense fertifications. The construction of Fert H.G. Wright, which began with the erection of the gun emplacements in 1898, cost the government a total of about 8 million dellars. It became the headquarters of the Coast Defense of Long Island, with Forts Terry, Eichie, Trumbull, Mansfield and Tyler as units in the command.

Fort H.G. Wright served as the coast and heavy artillery training center for Army and National Guard Units and West Point Cadets. Of all the installations within the outer ring of metropolitan defenses, Fort H.G. Wright was the most self-sufficient and best organized. The installation was equipped with its own electric power system and telephone system, which was hocked into the "mainland" system. The fort had its own farms and its own transportation system.

In 1949 Fort H.G. Wright was termed inactive and was authorized for sale. To date this valuable piece of property has not been sold.

Fort Terry, on Flum Island, was much bigger than the other "shield" installations. Established in 1898 and named in honor of Major General Alfred H. Terry who commanded Union forces during the Civil War, the post was garrisoned by the Coast Artillery from the date of its activation. During the summer months units sent to Fort H.G. Wright were sent in turn to Fort Terry for supplementary training in the technique of Coastal Defense operations.

At the end of World War II Fort Terry was inactivated, and was maintained only by a small carotaking detachment from Fort H.G. Wright. It remained on this .somi-active status until after World War II when all military personnel were withdrawn from the post and it was loft in the hands of a few civilian caretakers. In 1952, however, the Army Chemical Carps took possession of the facilities and utilized them for research and testing purposes. In July of 1954 the Army turned over all its facilities to the Department of Agriculture, which had contracted to take o introl of the rest of the island at the same time. The multi-million dellar Animal Disease takeouttory of the Department of Agriculture new occupies all of Fischers Island.

MORE

LONG ISLAND'S EASTERN SHIELD TAKE FOUR

Fort Tyler, situated on Gardiners Point, Gardiners Island, was erected on land originally purchased for a light house, but later abandened. Lying within the waters of Block Island Sound, Fort Tyler commands all of the waters of Little and Great Peconic Bays. Forts Mansfield, Trumbull, Wright and Michie guarded the entrance to Long Island Sound and Fort Tyler guarded the southern segment of the Sound, as well as all the waters of the important bays where Long Island forks into two branches.

At the end of World War I the installation became excess to the needs of the federal government and was authorized to be sold.

Camp Wikoff, which was located in the Fort Pond area almost opposite Montauk Beach had the shortest life of any of the "shield" installations. It was established in 1898 and immediately named Comp Wikoff in honor of Colonel Charles A. Wikeff who was killed at Santiago, Cuba. Camp Wikoff was set up to be the receiving point for troops returning from the campaigns of the Spanish-American War. Over 29,500 soldiers returned from Cuba, Puerto Rice and Florida and were quartered at Camp Wikoff until they could pass quarantine. Many of the returning soldiers had Yollow and Typheid Fever and wore put into detention camps of hastily orocted tents. Doctors and nurses did heroic work under difficult conditions created by the great volume of returning soldiers. Of the 29,500 camped there, only 263 mon were lost despite the high rate of tropical fever and infection. Toddy Roosevelt and his Rough Riders debarked from their ships at Comp Wikoff. When the flood of roturning soldiers lessened Comp Wikoff was inactivated, and has never been reopened. Today a dude ranch occupies the old site.

Camp Hero was established in 1942. It is the newest of all installations in the "shield" and remained active until 1947. Residents of the eastern end of Long Island knew little about the camp, except it was named for Major General Andrew Hero, Jr., and some huge coastal defense guns had been moved into it.

The movement of the guns was a huge problem for the Army, the Long Island Rail Road, and the people of the communities along the way. The guns were originally transported across the rickety Shinnecock Bridge, and later by railroad. The railroad proved to be a slow and unwieldy method, as well as costly, so the Army worked out an arrangement to transport the guns by barge. This also proved to be a slow, dangerous and costly process and was soon given up. The Army finally built its own bridge and the last of the big guns coming to and from Camp Hero thundered across a specially constructed pontoon bridge.

The public knew guns were at Camp Hero, but there was no idea as to the number of troops, the acreage of the camp, and the missions of the installation. The guns boomed periodically during target

ويران والمراوية الهيدات والمعين والعرفة والمتعدد فالعالب المراعات

firing exercises. This sealed off many square miles of fishing waters off the southern shore of Lorg Island, but it also proved to Americans and anyone else concerned that Camp Hero protected the south-eastern tip of Long Island, well out into the Atlantic Ocean and with other forts protected all waterways leading to New York City, Providence and New Haven.

Camp Hero was invisible from the air. Buildings could be seen in any aerial photograph, but they gave the appearance of a typical Long Island or New England village rather than a fort. From offshore an observer could see a row of summer homes along the coast, with wide, white, sandy beaches stretching down to the waterfront. Today these buildings are residences, but in the days of World War II the buildings belonged to Cump Hero, and were equipped with heavy armaments poking out through carefully camouflaged guaperts.

In 1947 Camp Hero was placed on an inactive status, but in 1951 it was reactivated as a sub-installation under the command of Army Anti-Aircraft Artillery. Heavy guns were returned to the post, and once again Camp Hero took on a mission in the U.S. Army defense perimeter around Long Island. In 1957 "Operation Changeover," the deactivation of all U.S. Army AAA gun batteries in the New York metropolitan area hit Camp Hero, and the guns were moved out. A spokesman for the Army stated that the removal of the guns did not necessarily spell an end to Camp Hero. The location of the installation is still considered highly strategic. On December 5, 1957 the last Army personnel left the installation.

The mention of Nike Hercules and other guided missiles is the keyword of a new era for the eastern "shield around the metropolitan areas. The guided missiles have itaken the role of coastal defense and anti-aircraft defense away from the eight forts which at one time formed Long Island's eastern shield. Today missile sites are located on Long Island, but are cleser to the cities they defend. Unfriendly craft, however, can still be engaged and stopped for off the eastern tip of Long Island , where the old forts once defended the shores. A new age has come to Long Island, the "shield" has been tightened into one far reaching circle around one of this country's strategic areas. Since 1775 when the nation first strived for independence Long Island has been a key military base and has been recognized as such by generations of military leaders. The old forts which formed the eastern "shield" belonged to one era, the guided missiles which today are capable of flying above the sites of these old forts belong to another era.

Historical Record: 773D ACWRON for period ending 31 March 1958 (continued)

AIR POLICE SECTION: 1 January 1958 - 31 March 1958

Equipment

This section maintains the following types of weapons:

45 caliber pistols 15 Ea.; .30 caliber ML Rifles 26 Ea.: .30 caliber Carbines 48 Ea.; .45 Submachine guns 5 Ea.; .30 caliber BAR!s 7 Ea., and associated amunition, for the above. On order are 15 ANPRC-21 Radios which this section will also maintain.

From the periods 1 January to 31 March 1958, the total amount of visitors arriving this station were approximately 900 from Civilian Companies, and Military Organizations.

The most difficult problem in this section at this period of time was the processing of identification cards, this item had to be accomplished at Suffolk County Air Force Base, but as now this whole system is being accomplished at this station.

On receipt of the new type dependent Identification Cards, this section has processed cards for members of the Air Force, Army, Navy and Coast Guard (DD 1173).

At the present time all personnel of this station are now firing on the firing range. This range was constructed by military personnel, also targets have been requisitioned and also reproduced by mimeograph machine.

A complete advance Notification system for the Main Gate and Air Police Headquarters has been completed. All now required is Electrical Communications which are now on order.

Security clearances for this station have also been conducted by the Security Section within this section, the total being 81 (NAC's), also for Background Investigations the total being three (3).

MOTOR POOL SECTION: 1 January - 31 March 1958

Equipment - Station Wagon, 9 passenger, 1956 1 Ea.: 12 ton International Cargo 2 Ea.; 5 Ton pickup 1 Ea.; Bus, 29 passenger 1 Ea.; Tractor, w/trailer 1 Ea.; Pay/Loader 1 Ea.; Fork lift 2 Ea.

During this period there were no reportable accidents due to the alertness and good judegement on the part of Motor Pool personnel.

Stand-by driver was initiated by Captain Marion B. Hitt, now Motor Pool OIC.

Motor Pool has lost three men. Two of which, A/2C Miller and A/3C Weaver, are now confined to the Suffolk County Air Force Base Stockade. The third, A/B Harris has been re-assigned to Central Heating as a permanent detail. All three were relieved from duty for being AWOL.

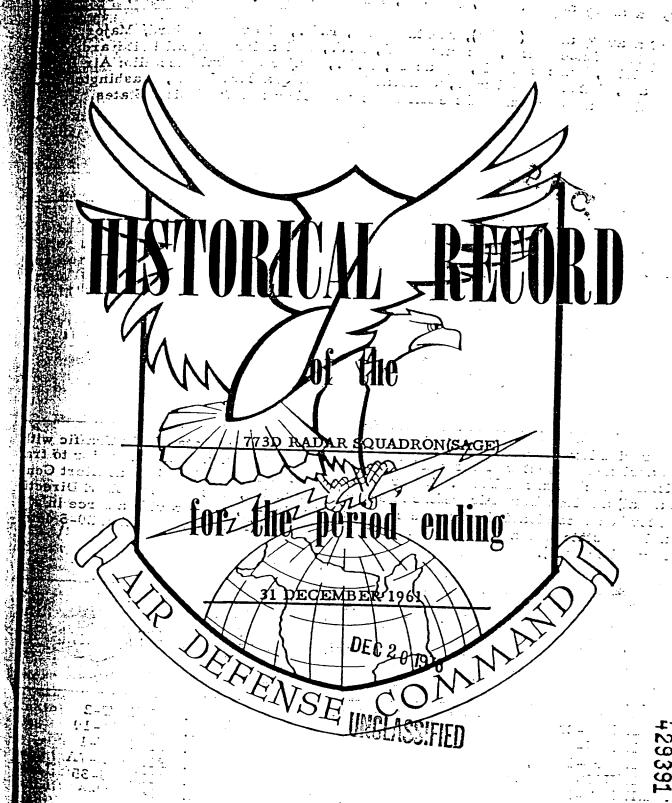
Revised Station Regulations were started and two rough drafts were submitted to the Sgt/Major for coordination throughout the Squadron.

Plans were started for the building of a new and larger Motor Pool parking lot for Government vehicles.

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ERSONNEL SERVICES SECTION

Projects:

- The theatre schedule has been revised to stimulate more attendance at cheduled movies.
- b. The fishing tournament was completed and many varied prizes were ∴ ≎i warded.
- c. A basketball team was organized and is currently playing in Suffolk ounty AFB Intra-Mural Basketball League.
 - d. The two-lane bowling alley being constructed on the site will not be empleted for approximately two additional months, therefore, the Squadron byling league which is comprised of approximately 100 military and civilian ersonnel is being conducted at East Hampton Star Lanes.

ERSONNEL AND ADMINISTRATION

Projects:

All Squadron personnel were scheduled for and completed marksmanship ining and qualified with the appropriate weapon during November and Essecember 1961.

The Ground Training Program has been reorganized to insure compliance ith all directives and accomplish all necessary training throughout the coming ear.

A complete review of all personal records of emergency data was completed a result of the NYADS Assistance Visit. This has been established as a parterly project.

The necessary briefings and initial plans were made in order to initiate the w system of filing and record keeping in accordance with AFM 181-4 and **. B**1-5.

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RCS: AU-D5

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REQUIRED DATA

1. UNIT AND LOCATION

2. NAME AND GRADE OF COMMANDER

773D Radar Squadron(SAGE) Montauk, N. Y. ERNEST C. SKINNER, LtColonel, US:
3. CHAIN OF COMMAND (Superior Echelons)

773D Radar Squadron (SAGE) Montauk AFS, N.Y., Ernest C. Skinner, Lt Colonel; New York Air Defense Sector, McGuire AFB, N.J., Brigadier General Coulter; 26th Air Division(SAGE) Stewart AFB, N.Y., Major General Agan; Air Defense Command, Ent AFB, Colorado, Lt General Thatcher; Hq NORAD, Colorado Spring General Gerhart; Headquarters USAF, Washington, D.C., General LeMay; Secretary of the Air Force; President of the United States.

4. SUBORDINATE UNITS (Down to and including equadrons)

NONE

1.

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3.

4.

5. MISSION (Give authority and brief statement of primary mission)

To provide the highest quality surveillance data to the New York Air Defense Sector and Boston Air Defense Direction Centers. To provide the New York Air Defense Sector Direction Center with the highest UHF voice and data link communications under Mode I operations. To provide same for the BOADS Direction Center under Mode II operations. To provide New York NCC with surveillance data under Mode operations. Conduct and participate in all Mode III phases of air defense by maintaining a ground interceptor control station in support of the New York NORAI Control Center. (NYADSR 23-3, 10 June 1963).

6. PERSONNEL

	OFFICERS	AIRMEN	CIVILIANS	TOTAL
ASSIGNED	16	160	23	199
ATTACHED				

	
7. EQUIPMENT (Give official nomenclature and quantity of mission-type equipment)	
1. AN/FPS-6	11. AN/FPS-26
2. AN/FPS-14	12. TD-285 Multiplex Unit
3. AN/UPX-6(2)	13. AN/GSC-7
4. AN/FST-1	14. AN/GRC-27(2)
5. AN/FST-2	15. AN/GRT-3(26)
6. AN/FSW-1	16. AN/GRR-7(26)
7. OA-840A/GPX-7A	17. AN/FTA-13
8. AN/FPS-35	18. OA-99(8)
9. AN/FRT-49	19. AN/UPX-14
10, AN/GKA-5	20. AN/UPA-35-3
Tr 10	

E-18

b. No medical personnel have been promoted or are in cross training furing this reporting period.

SUPPLY SECTION

- Personnel
- a. The Unit Supply Section has three people assigned: 2Lt William M. McCabe, SSgt Andrew Jones, and Mr. Walter J. Aley, Civilian.
- b. During the month of November, the Unit Supply office was moved from he old gun bunker to the former TROPO building. The supply office was ocated in the old gun bunker for more than five years.

MOTOR POOL SECTION

. Personnel

Gains: None

Losses: AlCAlfred Horn

2.	GSA Mileage for G	October - 8,9	34 Cost	\$664.00
Į	GSA Mileage for I	November - 1	0,057	763.00
)	GSA Mileage for I	December - 1	1,215	842.00

PERSONNEL AND ADMINISTRATION

- . SSgt Raymond J. Kwiatkowski was upgraded to the 7-level skill.
- . OJT effectiveness for the squadron for the year 1963 was 94%.
- . On 19 December 1963, the administrative section received a new duplicating nachine.

IVIL ENGINEERING SECTION

- . New governors were installed on each of the three engines at the GATR ite.
 - The main power panel at the GATR Site was rewired.
- . Number 3 engine fuel pump at the Main Power Plant was damaged and the ump was replaced.
- The trunk line supplying commercial electrical power to Montauk Air Force tation burned out, causing loss of commercial power. At present, repair is ending awarding of a contract. Until such repair is made, electrical power will be furnished by Base power.
- . The number 2 waste heat boiler has ruptured tubes, repair pending warding of contract.

Page	5	_of_	6	Pages
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INSTALLATION SURVEY REPORT

MONTAUK AIR FORCE STATION

MONTAUK LONG ISLAND

N E W Y Y O R K

10 MAY 1972

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Air Division.

b. Topography: The soil type is glacial till composed of poorly stratified boulders, gravel, sand, salt and clay. Most of the general topography drains into swamps, situated throughout the area. There is approximately 5500 feet of man-made drainage ditches. Deeply sloped land is subject to water erosion. Vegetation cover consists of Kentucky Bluegrass, Red Fescue, Birdfoot Trefoil and Perennial Ryegrass.

c. Base Population: (Authorized strength, 4th qtr, FY72).

	<u>Military</u>	Civilian	Total
773 Radar Squadron	133	32	165
Dependents (On base)	0	266	· <u>266</u>
Total Base Population	133	298	431

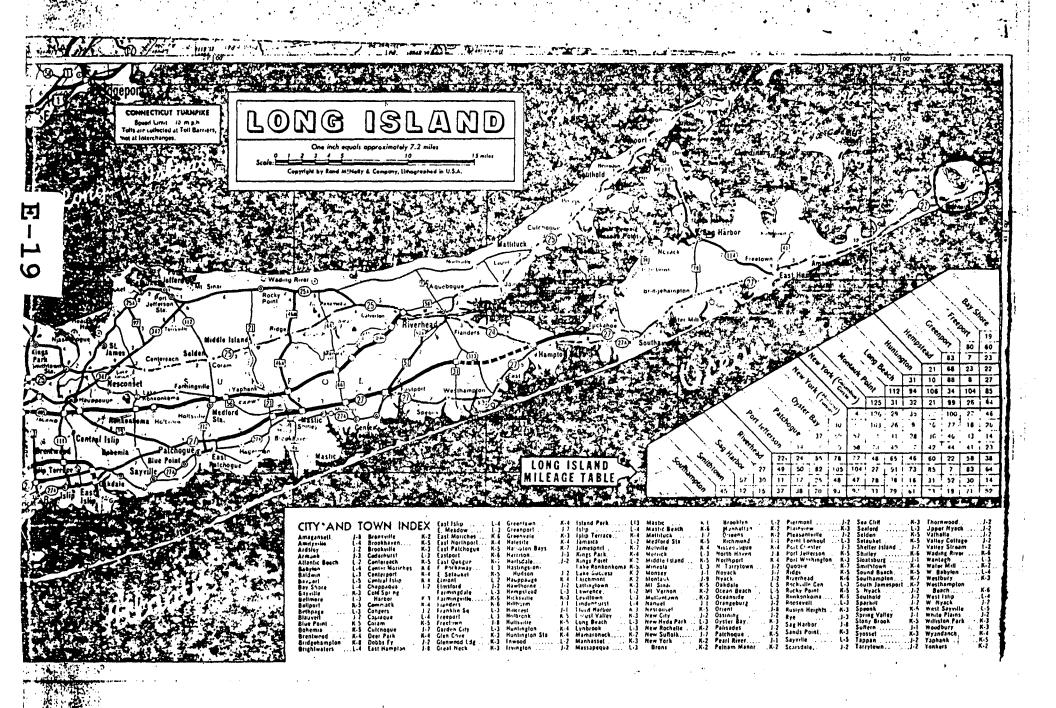
d. Summary of Land and Acquisition Cost:

(1) On Base

Source	Acres	Cost
Government owned (fee)	301.40	101,580.72
Land Easement Access	1.80	N/A
TOTAL	30 <u>3</u> .20	\$ 101,580.72

(2) Off Base (GATR Site)

Source	Acres	Cost
Government owned (fee)	6.65	18,305.70
Land Easement Access	.25)	450.00
Land Easement (Road)	.24)	4,00.00
Land Easement (Road)	3.21	750.00 \$19,505.70
TOTAL	10.35	φ19,000,10



SECTION III

AREA DATA AND VICINITY MAP-

CLIMATE:

Although periodic high winds impede the operation of our FPS 35 Radar Antenna, the area has an ideal climatic condition conducive to year round mission accomplishment. The mean temperature in January is 26.1 degrees, July 70.8 degrees, with 51.3 degrees as the yearly mean. The average rainfall is 40.4 inches occurring mostly in late winter and early spring. Snowfall is very slight and the average wind velocity is 18 knots.

TRANSPORTATION NETWORK:

During the winter months, the Long Island Railroad operates two trains and three buses daily between the town of Montauk and New York City. During the summer months two additional trains and buses are scheduled on weekends. A small private airport in Montauk, located five miles from Montauk AFS, provides chartered flights to New York City and the New England area. The two major commercial airfields serving New York City, John F. Kennedy Airport and LaGuardia Field, are approximately 110 miles from Montauk AFS. Major highways serving Montauk are Interstate 495 connecting with New York State Route 27 at Riverhead to provide access to New York City.

GREENBELT CONCEPT: There is no Greenbelt Concept at Montauk at the present time.

INSTALLATION DATA:

a. <u>Basic Mission</u>. Montauk Air Force Station is a long range radar station which provides high quality surveillance data to Headquarters 21st

SECTION IV

HISTORY

Montauk Air Force Station, located at the extreme eastern tip of Long Island, five miles east of the village of Montauk, is presently the home of the 773 Radar Squadron (ADC).

During World War II Camp Hero was occupied by the Army Coast Artillery whose huge 16 inch guns stood ready to defend against any possible invasion by enemy forces.

Following World War II Camp Hero was deactivated and used as summer training camp for Army Reserve Units.

On 27 November 1950 the 773rd Aircraft Control and Warning Squadron was activated and located on a portion of Camp Hero which was then redesignated as Montauk Air Force Station.

The squadron was assigned to Eastern Air Defense Force until 6 February 1952 at which time it was re-assigned to the 26th Air Division.

From 6 February 1952 until October 1958 the 773rd Radar Squadron operated as an Air Defense Direction Center, providing surveillance for the detection, identification, and interception of all aircraft entering the area of responsibility. As the speed and performance of manned aircraft increased and the use of missiles increased, it became apparent that the concept of manual Air Defense Operations whould not keep pace. The 773d bowed to progress with the advent of the SAGE (Semi-Automatic Ground Environment System) and was assigned to New York Air Defense Section (SAGE) on January 8, 1957. On 1 October 1958 the Squadron was redesignated as the 773rd Radar Squadron (SAGE) and acquired a new mission.

Buildings: (1) On Base Temporary 15 Semi-permanent 9 Permanent 70 TOTAL 94 (2) Off Base (GATR Site) Temporary 0 Semi-permanent Permanent TOTAL f. Total value of land and improvements: (1) On Base \$9,545,905.27

(2) Off Base (GATR Site)

\$ 306,965.16

g. Leases and Permits:

Agency	Lease #	Effective	<u>Termination</u>	Type
AT&T	DA30-075 Eng-11187	20 Sep 56	19 Sep 2006	Outgrant

MILITARY CONSTRUCTION PROGRAM

- FY 1972 None
- b. FY 1973 1977: Total Estimated Cost of \$79,000 for one project.
- c. Additional Family Housing requirements identified but not funded.

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On 1 April 1966 New York Air Defense Section was redesignated as the 21st Air Division and the 26th Air Division was redesignated as First Air Force. Today, the Squadron provides surveillance data for 21st Air Division on a twenty-four hour basis, seven days a week.

THEREBY ENABLING THE RELEASE OF A PORTION OF THE PROPERTY?

Yes. The property referred to in item 11 is adjacent to a state park.

- 6. ARE THE BUFFER ZONES KEPT TO AN ABSOLUTE MINIMUM?
 Yes.
- 7. IS THE PRESENT PROPERTY INADEQUATE TO SERVE CONTEMPLATED FUTURE PROGRAMS?

 Not entirely. If the proposed transfers discussed in item 3 above are

 completed, the property requirements of Montauk AFS will be adequate to serve

 contemplated future programs. The property which can be disposed of (ref
 erence item 11) is not suitable for the purpose of the property which we are

 attempting to obtain.
- 8. CAN NET SAVINGS BE REALIZED THROUGH RELOCATION, CONSIDERING PROPERTY
 VALUES, COSTS OF MOVING, OCCUPANCY, AND INCREASED EFFICIENCY OF OPERATIONS?
 No.
- 9. HAVE DEVELOPMENTS ON ADJOINING NON-FEDERALLY OWNED LAND OR PUBLIC ACCESS ROAD RIGHT-OF-WAY GRANTED ACROSS THE GOVERNMENT OWNED LAND RENDERED THE PROPERTY OR ANY PORTION THEREOF UNSUITABLE OR UNNECESSARY FOR PROGRAM REQUIREMENTS?

Not applicable.

10. IF FEDERAL EMPLOYEES ARE HOUSED IN GOVERNMENT-OWNED RESIDENTIAL PROPERTY, CAN THE LOCAL MARKET PROVIDE THE NECESSARY HOUSING AND OTHER RELATED SERVICES, THEREBY ENABLING THE GOVERNMENT-OWNED HOUSING AREA TO BE RELEASED?

No.

11. CAN THE LAND BE DISPOSED OF AND PROPOSED PROGRAM REQUIREMENTS SATIFIED THROUGH RESERVED RIGHTS AND INTERESTS TO THE COVERNMENT OF THE PROPERTY RELEASED?

SECTION V

MISSION

The mission of Montauk Air Force Station is to provide radar surveillance data, aircraft height determination, and Mark X IFF/SIF identification data and t accomplish radar mapping prior to transmittal of such data to Air Defense SAGE units. The 773 Radar Squadron provides this surveillance data to the 21st Air Division Direction Center on a twenty-four hour basis, seven days a week.

The Military Affiliate Radio Service (MARS) Station located in Montauk

Air Force Station provides a back-up communications link with radar ships

at sea and the SAGE Direction Center.

The Ground to Air Transmitter Receiver (GATR) Site located 4 miles west of our main station, is a relay station which provides the 21st Air Division with the capability for UHF voice and data link communications with interceptor aircraft.

SECTION VII

DISCUSSION

SECTION VI

SPECIAL INTEREST ITEMS

In compliance with FPMR, Paragraph 101-47.801, the general guidelines are discussed as follows:

- 1. IS THE PROPERTY BEING PUT TO ITS HIGHEST AND BEST USE?
- Yes. All 313.55 acres of Montauk Air Force Station are currently being put to best use.
- 2. ARE OPERATING AND MAINTENANCE COSTS EXCESSIVE?

43.50mm

- No. The facility maintenance program appears to be very effective.

 Only three projects qualifying as backlog of essential maintenance and repair exist at present. Prior year maintenance expenditures were \$275,345 or approximately 2.9% of the investment cost.
- 3. WILL CONTEMPLATED PROGRAM CHANGES ALTER PROPERTY REQUIREMENTS?
- Yes. The Air Force proposes an addition of 7.85 acres in fee for recreational facilities, family housing, sewerage outfalls and a fresh water well. The Air Force also proposed an addition of 24.946 acres in restrictive easements to insure reliability of the "ALRI" receiver. The "ALRI" receiver was deactivated in 1970, however, the easement is still required due to the associated RF radiation hazard of the FFS-26 radar. The proposals are currently at the Chief of Engineers, New York Division, Corps of Engineers.
- 4. IS ALL OF THE PROPERTY ABSOLUTELY ESSENTIAL FOR PROGRAM REQUIREMENTS?
- No. Approximately 45 acres of swamp land are scattered throughout Montauk AFS, however, drainage ditches utilized for the entire installation run through these areas.
- 5. WILL LOCAL ZONING PROVIDE SUFFICIENT PROTECTION FOR BUFFER ZONES,

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AREA C - FAMILY TRAILER COURT

During FY 60, Sixteen (16) concrete pads were constructed to accommodate privately owned trailers to augment Family Housing. During the 2nd quarter FY 72, four (4) additional concrete pads were constructed.

AREA D - SEWAGE TREATMENT & DISPOSAL PLANT

The old sewage treatment system was replaced in 1970. A new Clarigester, effluent recycle pump, chlorine contact tank and trickling filter were installed. Minimum changes were made to route the effluent through the existing manholes to the new plant and subsequently to the ocean. The area used for outfall is pending transfer in fee from the Army Corps of Engineers.

AREA E - RECREATION AREA

The recreation area is utilized by 165 military and civilian employees, their dependents and civilian guests. There are facilities for picnicing, baseball, softball and other outdoor activities. The recreation area is located on property which is pending transfer from the Army Corps of Engineers.

AREA F - INDUSTRIAL AND OPERATIONAL AREA

The industrial and operational area consisting of support facilities is located in the center of the base. This location is essential for control and coordination in fulfilling the basic mission of Montauk AFS.

AREA G - AT&T AREA

This area (.6753 acres) is leased to AT&T through the year 2006. AT&T provides a vital communication service for Montauk AFS.

AREA H - WATER SUPPLY AND PLANT

The fresh water supply system is composed of four wells, a treatment plant and storage tanks and is located at six locations throughout the installation.

- Yes. Approximately 64 acres of land located on the southwest portion of the installation could be disposed of provided an easement was granted for an existing fresh water well and a guaranteed right-of-way to the well. A restrictive easement would also be required due to the RF radiation hazard of the FPS-26 radar.
- 12. IS A PORTION OF ANY PROPERTY BEING RETAINED PRIMARILY BECAUSE THE PRESENT BOUNDARIES ARE MARKED BY THE EXISTENCE OF FENCES, HEDGES, ROADS, AND UTILITY SYSTEMS?
- No. None of the property is being retained due to physical features of the boundary.
- 13. IS ANY LAND BEING RETAINED MERELY BECAUSE IT IS CONSIDERED UNDESTRABLE PROPERTY DUE TO TOPOGRAPHICAL FEATURES OR ENCUMBRANCES FOR RIGHT OF WAY?
- Yes. Approximately 45 acres scattered through Montauk AFS consists ... entirely of swampland.
- 14. IS THE LAND BEING RETAINED MERELY BECAUSE IT IS LAND LOCKED?
 - No. None of the property is being retained because it is landlocked.
- 15. IS THERE LAND OR SPACE IN GOVERNMENT OWNED BUILDINGS WHICH CAN BE MADE AVAILABLE FOR UTILIZATION BY OTHERS ON A TEMPORARY BASIS?
- Yes. The land identified in item 11 could be utilized by others on a temporary basis. Currently .675 acres of land is used by AT&T on an Outgrant. The government owned buildings are fully utilized.

SECTION VII

DISCUSSION

GENERAL:

Montauk AFS consisting of approximately 313 acres is an active Radar Site. The major portion of the land area is being fully utilized in the support of the assigned mission. There are no DOD tenant organizations assigned to this installation. Future programming is anticipated in the Family Housing Area, since only 27 Family Housing units are presently on Base. The Community housing available is not within the pay scale of military families, as this area is primarily a vacation spot. To discuss the land-use in more detail the installation is divided into 12 categories, as shown on the land use map.

AREA A - FAMILY HOUSING:

Family Housing units were constructed in two increments. Nine units were completed in 1956 consisting of 2 and 3 bedrooms, and in 1958 another 18 units were constructed consisting of 2, 3, and 4 bedrooms. These facilities were constructed on concrete slab. A small playground is located in this area.

AREA B - FAM CAMPS:

A temporary FAM CAMP was established in August 1968. This facility is fully occupied by family camping trailers from late May through September. During FY 69 this area was enlarged to accommodate 10 trailers. Funds were supplied by 1st Air Force in the amount of \$4700.00. In December 1971, 5 government owned trailers were purchased and located in this area to temporarily accommodate incoming and departing military families on permanent change of station moves.

FOR OFFICIAL USE ONLY SECTION IX

DISPOSAL ACTIONS

AT THE PRESENT TIME THERE ARE NO DISPOSAL OF LANDS PENDING.

FOR OFFICIAL USE ONLY

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AREA J - CANTONMENT AREA

This area contains dormitories, special service facilities and administrative support facilities.

AREA K - PROPOSED FAMILY HOUSING AREA

This area is presently pending transfer from the Army Corps of Engineers.

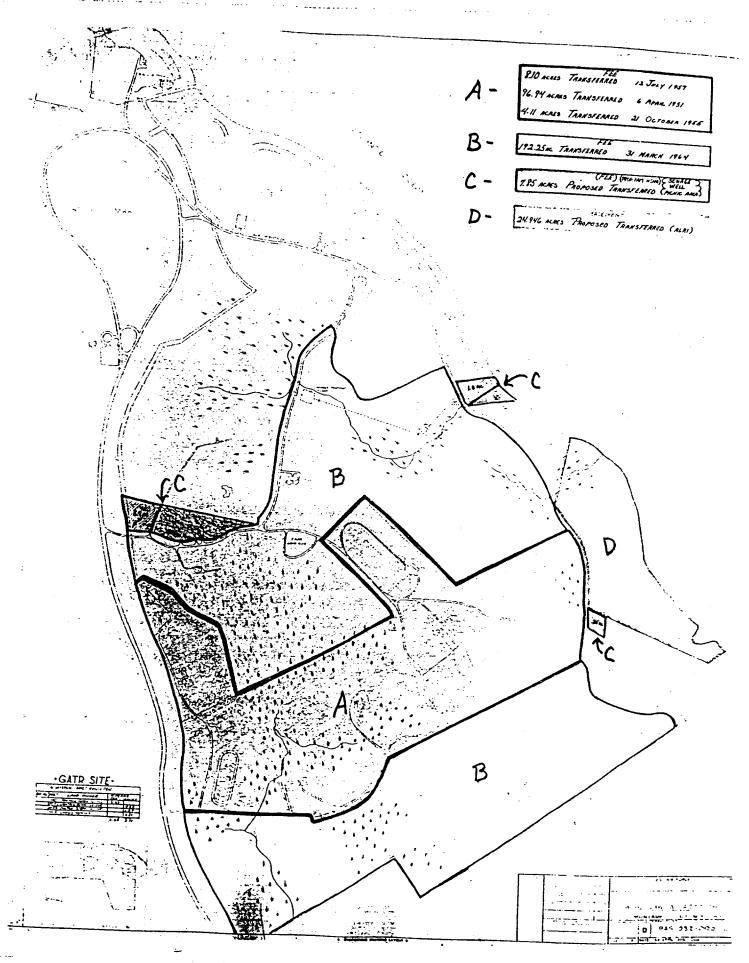
Suitable year round housing is extremely limited in the local community. The local area is primarily a summer resort spot and houses were designed for summertime use. The housing problem has been identified to higher headquarters. It is anticipated that either family housing or a trailer court will be approved which will accommodate approximately 20 families.

AREA L - FPS-26 RF RADIATION HAZARD FOR PERSONNEL AND FUEL

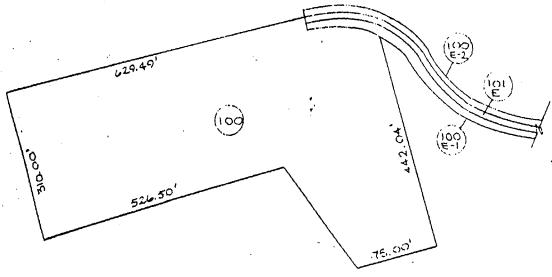
The FPS-26 radar has an associated RF radiation hazard radius of approximately 720 feet for personnel and petroleum products. The effected area at its lowest point starts at 23 feet vertically from a plane extending horizontally from the base of the FPS-26 Tower. The radiation hazard from the FPS-6 and FPS-35 radars is less than for the FPS-26, therefore, it is not included.

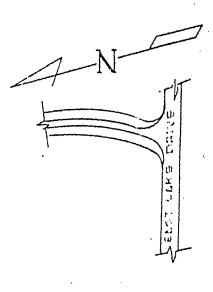
AREA M - FPS-26 RF RADIATION HAZARD FOR ELECTRONIC EXPLOSIVE DEVICES

The FPS-26 Radar has an associated radiation hazard radius of 1500 feet for electronic explosive devices. The effective area starts at 10 feet vertically extending from a plane extending horizontally from the base of the FPS-26 Tower. The radiation hazard from the FPS-6 and FPS-35 radars is less than for the FPS-26, therefore, it is not included.



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	ACQUISTICH TRACT REGISTER										
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	100	MONTAUN BEACH CO. INC.	6.05	1							
	100 E-1	16 15 16		0.25							
	100 E-2	11 //		0.24							
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3.70

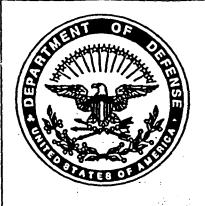
MONTOUR AFS. LI, N

BUILDING SCHEDULE

(Attachment to Base Layout Plan Tab C-1, Montauk AFS)

Revised Feb 72

1 3 4 5 6 7 8 9 10 1 12 13 14 15 16 17 18 19 20 1 22 23 37 5 9 10 10 10 3	Dormitory Gymnasium Dormitory Dormitory Recreation, Multi. Purp. Dormitory Dormitory Exchange Sales Store BE Storage Dormitory Security Police & Classroom Hq Sq Dormitory Community Center Open Mess, NCO Dispensary Dormitory Youth Center Water Pump Sta Water Treatment Plant Dining Hall Water Tank Stor Auto Hobby Shop Storage Warehouse Protective Shelter ACE Operations MARS Radio	115 II 116 II 119 II 120 to 200 201 II 202 II 202 II 203 II 204 II 205 II 206 II 207 201 II 2003 2001 2003 2004 2005 2006 2007 2008 2009 2010 2013 2022	Storage Protective Shelter Recreation Facility Frailer Ct. Utility Bldg 146 Family Housing GATR Bldg Radar Tower Bldg 35 Elec. Power Bldg Elec. Power Bldg Pump Sta. Liq. Fuel Radqme Tower FPS-26 Bowling Center BCE Maint Shop Radar Tower Bldg Radar Tower Bldg Protective Shelter Sew. Pump Sta Fire Hose Hse """ """ Water Pump Sta Well #3 Water Pump Sta Water Stor Tank Storage, Mogas Flagpole
75	Storage	2009	Water Pump Sta
		=	
			9 • •
104	Commissary Store		Water Tank Stor
105	Heating Plant	_	Stor Diesel
106	Sentry House		Water Pump Sta
107	Elec Switch Sta	2050	San Sewage Pump Sta
108	CE Admin & Maint	2054	Sew Treatment & Disposal
109	Dormitory	2057	S/Waste Repository
110	Storage		Waste Treatment Bldg
111	Storage Shed	2400 3001	Well Pump Sta Telecon Cen





U.S. ARMY
PROGRAM MANAGER FOR
CHEMICAL DEMILITARIZATION

DRAFT

SURVEY AND ANALYSIS REPORT SECOND EDITION

PROJECT MANAGER
FOR
NON-STOCKPILE CHEMICAL MATERIEL

DECEMBER 1996

OCATION

Camp Hero

LOCALITY

Long Island

STATE

NY

SITE

Unknown

DESCRIPTION

Although no history of activities or functions of this installation were found, records indicate that on 22 February 1945, Battery "A" Coast Artillery Battalion (Mustard - HD) held a "Gas Identification Detonation Exercise." During this exercise, men were sent into clouds of mustard, phosgene, and lewisite. On this day the weather conditions were less favorable (inversion) and the clouds hung close to the ground; thus, a high number of men experienced irritations on their faces and arms. Because the inversion conditions were the cause of the men's irritations, it was stated that the exercises would only be held on favorable weather days.

SIZE

Unknown

CONTENTS

Unknown

COMMENTS

None

TYPE

Disposal

INSTALLATION

Formerly used defense site

BURIED CWM SITE

Chemical agent identification set

CLASSIFICATION

4 - Possible burial



New York State Office of Parks, Recreation and Historic Preservation Historic Preservation Field Services Bureau Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

Bernadette Cest o Commissioner

December 3, 1999

L.S. Army Corps of Engineers
/ TTN: CEMVR-ED-DO
linomas J. Knapp
(lock Tower Building
F.O. Box 2004
Fock Island, Illinois 61204-2004

Fe: CORPS

Ordnance & Explosive Hazards Camp Hero, Suffolk Co. Niskayuna, Schenectady Co. 99PR3252

E ear Mr. Knapp:

It reviewing our letter of October 8, 1999 to your office to provide clarification of our response, I rotice an error regarding reported historic structures. The correct response should have been as fullows:

	Camp Hero	<u>Niskayuna</u>
A cheologically Sensitive	Yes	Yes
National Listed/Eligible	Yes	None known

A ter receipt today of a detailed map of the Niskayuna site, I can now say that there are no National Register of Historic Places listed or eligible properties in or adjacent to the former tank to sting facility at Niskayuna. There are no identified archeological sites within the Niskayuna purcel, but we consider the area "sensitive" due to numerous sites nearby and consider a Phase 1 archeological survey to be warranted.

V e have identified National Register eligible structures at the former Camp Hero, Montauk Point, L ing Island, i.e., WWII era bunkers, the former recreation hall and a communications/observation b illding designed to appear as a civilian cottage. Again, we consider the former Camp Hero to b i archeologically sensitive due to known sites nearby and based on the history of the property.

If you have any questions regarding this review, please call me at (518) 237-8643, extension 3 :83. Please refer to the project number (PR) above in any correspondence.

Sincerely,

/ mes Warren
F storic Preservation
F rogram Analyst

An Equal Opportunity/Affirmative Action Agency

New York State Department of Environmental Conservation Division of Fish, Wildlife & Marine Resources

Wildlife Resources Center - New York Natural Heritage Program
700 Troy-Schenectady Road, Latham, New York 12110-2400

Phone: (518) 783-3932 FAX: (518) 783-3916





October 6, 1999

Joseph Raoul, Jr US Army Corps of Engineers, Rock Island District Clock Tower Bldg, PO Box 2004 Rock Island, Illinois 61204-2004

Dear Mr. Raoul:

In response to your recent request, we have reviewed the New York Natural Heritage Program databases with respect to the Formerly used Defence Sites, Camp Hero at Montauk, Suffolk County; and the Niskayuna Ordinance Modification Plant at Niskayuna, Schenectady County, both sites as indicated on the map you provided, located in New York State.

Enclosed is a report of rare or state-listed animals and plants, of significant natural communities and of other significants habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. The information contained in this report is considered <u>sensitive</u> and may not be released to the public without permission from the New York Natural Heritage Program.

Your project location is within, or adjacent to, a designated Significant Coastal Fish and Wildlife Habitat. This habitat is part of New York State's Coastal Management Program (CMP), which is administered by the NYS Department of State (DOS). Projects which may impact the habitat are reviewed by DOS for consistency with the CMP. For more information regarding this designated habitat and applicable consistency review requirements, please contact:

Greg Capobianco or Steven C. Resler - (518) 474-6000 NYS Department of State Division of Coastal Resources and Waterfront Revitalization 162 Washington Avenue, Albany, NY 12231

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should <u>not</u> be substituted for on-site surveys that may be required for environmental impact assessment.

Natural Heritage Report

pecies and Ecological Communities

Prepared 4 October 1999 by NY Natural Heritage Program, NYS DEC, Latham, New York

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MONTAUK

** Town Scientifc Name, COMMON NAME, & Group Name	NY Legal Status & Heritage Ranks	Federal Status	Precision & Acreage	EO Rank & Last Seen	General Habitat and Quality	Detailed Location	USGS Topo Quad Lat & Long	Office Use
* SUFFOLK ** EAST HAMPTON								
Viburnum dentatum var venosum SOUTHERN ARROWWOOD Vascular Plant	UNPROTECTED G5T47 S2		S 100	A 1992-08-13	GRASSLAND AREAS INTERMIXED WITH COASTAL SHRUBLAND. MARITIME SHRUB COMMUNITY. ASSOC. SPECIES: VIBURNUM DENTATUM VAR. VENOSUM IS ONE OF THE DOMINANT SHRUBS; OTHER CODOMINANTS INCLUDE PRUNUS MARITIMA, PRUNUS SEROTINA, MYRICA PENSYLVANICA, AND IN WETTER	MONTAUK POINT TAKE MONTAUK POINT STATE BLVD (RTE 27) ALMOST TO END OF ISLAND CIRCLE. PLANTS ALONG RTE 27 ROADSIDE EAST OF INTERSECTION WITH EAST LAKE DRIVE IN VERY DENSE POPULATIONS AND ON NORTHERN END OF CIRCLE JUST AS IT CURVES SW. PLANTS FOUND AT EDGES OF ROADS	MONTAUK POINT 41 04 02 N 71 52 55 W	4107113 37
Shrub swamp Community .	UNPROTECTED G5 S5		S 10	B 1991-03-22	SEVERAL SMALL SHRUBBY WETLANDS WITHIN EXTENSIVE AREA OF SUCCESSIONAL MARITIME FOREST AND MARITIME SHRUBLAND. SOME WETLANDS HAVE STANDING WATER AND SPARSE HERB LAYER; OTHERS HAVE SATURATED SOILS WITH MANY HERBS AND MOSSES. THE MARGINS OF THE WETLANDS	CASWELL CLIFF SEVERAL SMALL WETLAND PATCHES WITHIN SUCCESSIONAL MARITIME FOREST AND MARITIME SHRUBLAND, S OF MONTAUK POINT STATE BOULEVARD AND WITHIN 1.0 MI ESE OR N OF POND BLUFF, ABOUT 2.0 TO 2.7 MI W AND SW OF MONTAUK POINT LIGHTHOUSE.	MONTAUK POINT 41 03 25 N 71 53 11 W	4107118 67
Eleocharis halophila SALT-MARSH SPIKERUSH Vascular Plant	RARE G4 S2		S 1	E 1986-07-29	SERIES OF WETLANDS. A FEW DISTINCT PONDS BUT MOSTLY EXTENSIVE, OPEN (SOMETIMES SHRUBBY) MARSH OR MEADOW. BEHIND PRIMARY DUNES, OCEAN BEACH. FRESH TO SOMEWHAT BRACKISH WETLANDS NEAR OCEAN BEACH.	MONTAUK POINT FROM THE EASTERNMOST END OF CIRCULAR TERMINUS OF STATE BLVD. (ABOUT W OF LIGHTHOUSE), GO 0.25 MI NNW TO INDICATED WETLANDS. PLANTS ARE IN THE WETLANDS NEAR OCEAN BEACH.	MONTAUK POINT 41 04 22 N 71 51 35 W	4107118 76

Natural Heritage Repo.

Species and Ecological Communities

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* SUFFOLK								
** EAST HAMPTON Coastal plain poor fen	UNPROTECTED		S	B 1991-06-18	SMALL WETLAND WHICH IS AN ISOLATED "BACKWATER"	CASWELL CLIFF WETLAND ABOUT 0.3 MI NW OF	MONTAUK POINT 41 03 04 N	4107118 63
Community	\$1		· 	1331-00-10	OF A SMALL POND TO WHIC THE WETLAND IS CONNECTED BY A SHADED MUCKY CHANNEL THIS ROUGHLY CIRCULAR OPEN WETLAND IS SURROUNDED BY A THICKET OF SHADBUSH (AMELANCHIER), HIGHBUSH BLUEBERRY (VACCINIUM CORYMBO	POND BLUFF, ABOUT 0.2 MI S OF OLD MONTAUK HIGHWAY, AND ABOUT 2.0 MI SW OF THE MONTAUK POINT LIGHTHOUSE.	71 53 02 W	63
Note that the North Nort	UNPROTECTED G5T47 S2	,	S 25	B 1992-05-30	MARITIME SHRUB COMMUNITY. AT EDGES OF PATHS AND WETLANDS. ASSOCIATED SPECIES: PRUNUS SEROTINA, PRUNUS MARITIMA, JUNIPERUS VIRGINIANA, RHUS COPALLINUM, AMELANCHIER CANADENSIS.	CASWELL CLIFF SOUTH OF OLD MONTAUK HIGHWAY ON BOTH SIDES OF DIRT ROAD TO THE OCE AN NEAR CASWELL CLIFF.	MONTAUK POINT 41 03 13 N 71 52 33 W	4107118 84
Successional maritime forest Community	UNPROTECTED G4 S3S4		S 300	A 1997-07-23	SUCCEEDING FOREST EXPOSED TO SALT SPRAY ABOVE EXPOSED BLUFFS ON TOP OF A LARGE PUSH MORAINE AT THE E END OF LONG ISLAND. FOREST SURROUNDS SEVERAL SMALL WETLANDS INCLUDING A COASTAL VARIANT OF SHRUB SWAMP AND BLACKGUM VARIANT OF RED MAPLE-HARDWOOD SWA	CASWELL CLIFF WOODS BETWEEN OYSTER POND AND POND BLUFF. COMMUNITY EXTENDS NW TO MONTAUK POINT STATE HIGHWAY, SW TO ABOUT 0.2 MILES SW OF OLD MONTAUK HYGHWAY AND E TO CAMP HERO MILITARY RESERVATION.	MONTAUK POINT 41 03 25 N 71 53 11 W	4107118 67

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	SUFFOLK								
**	EAST HAMPTON	UNPROTECTED		c	D	VADIADI V CINDV TO		MONTHIE POINT	4107110
	Polygonum glaucum SEABEACH KNOTWEED	G3		s ,	B	VARIABLY SANDY TO GRAVELLY BEACH BACKED	MONTAUK POINT	MONTAUK POINT 41 04 22 N	4107118
王-22	Vascular Plant	S3			1993-09-28	BY HIGHLY ERODED, SHEAR BLUFF FACE. ABUNDANT OFFSHORE AND SHORELINE BOULDERS. BEACH ZONE CA 75 FT WIDE OR SO.	FROM PARKING LOT, GO ACROSS RD OPPOSITE PARKING LOT ENTRANCE AND WALK N TO WHERE A ROAD DESCENDS TO RIGHT. FOLLOW RD TO BEACH BETWEEN FALSE POINT AND MONTAUK POINT UPPER BEACH. PLANTS SCATTERED ALONG SANDY SECTIONS OF UPPER BEACH, GRAVELLY TO STONY B	71 51 35 W	76
N	Arethusa bulbosa	RARE		S	В	WET SHRUB THICKETS IN	CASWELL CLIFF	MONTAUK POINT	4107118
	SWAMP PINK Vascular Plant	G4 S2	4	1	1985-05-31	MORAINAL BLUFFS OVERLOOKING ATLANTIC OCEAN. ASSOCIATED SPECIES: VACCINIUM CORYMBOSUM, V. MACROCARPON, RHYNCHOSPORS, HYPERICUM SP.	FROM JUNCTION OF MONTAUK POINT ST. BLVD AND OLD MONTAUK HIGHWAY, 1.1 ME ON OLD MONTAUK HIGHWAY, 0.3 MI SSE ON SAND RD TO BUILDOZED ROADS RUNNING E/W. PLANTS ARE SCATTERED TO LOW PLACES TO EAST. PLANTS ARE SCATTERED AT EDGE OF WETLAND SHRUB THICKETS	41 03 07 N 71 52 35 W	28΄
	Rumex maritimus var fueginus GOLDEN DOCK Vascular Plant	THREATENED G5T5 S1		М	H 1926-09-29		MONTAUK POINT	MONTAUK POINT 41 04 23 N 71 51 46 W	4107118 4
	Corsopsis rossa ROSE COREOPSIS Vascular Plant	RARE G3 S3		М	H 1923-PRE	*	MONTAUK PÖINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18

Prepared 4 October 1999 by NY Natural Hentage Program, NYS DEC, Latham, New York

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*	SUFFOLK								
**	EAST HAMPTON Agalinis acuta SANDPLAIN GERARDIA Vascular Plant	ENDANGERED G1 S1	LE	М	F 1938-08-27	IN SANDY SWALE.	BIG REED POND NEAR REED POND, MONTAUK POINT.	MONTA UK POINT 41 04 47 N 71 54 22 W	4107118 15
王-2	Viola primulifolia var primulifolia PRIMIROSE VIOLET Vascular Plant	UNPROTECTED G5T7 S2		S 1	B 1985-09-07	LOW ELEVATION POND SET IN MORAINAL DEPOSIT. VERY LITTLE NEARBY DEVELOPMENT. HOUSES TO EAST. PLANTS SET IN EXPOSED MARGIN AREAS. ASSOC. SPP.: HYPERICUM SP., CYPERUS SP., AND ELEOCHARIS SPP.	CAVETTS POND FROM TRAFFIC CIRCLE AT DITCH PLAINS WALK TO BEACH. FOLLOW BEACH 1.3 MI TO NNE. POND IN DEPRESSION WEST OF HOUSES. PLANTS AT NW END OF POND.	MONTAUK POINT 41 02 43 N 71 53 47 W	4107118 33
N	Tripsacum dactyloides NORTHERN GAMMA GRASS Vascular Plant	UNPROTECTED G5 S2	t	М	H 1960-09-17	EDGE OF WET SINKHOLE AT SANDY ROADSIDE BESIDE HIGHWAY.	LAKE MONTAUK EDGE OF WET SINKHOLE AT SANDY ROADSIDE BESIDE HIGHWAY SOUTH OF GREAT POND [LAKE MONTAUK].	MONTAUK POINT 41 02 42 N 71 54 53 W	4107118 16
	Spiranthes vernalis GRASSLEAF LADIES'-TRESSES Vascular Plant	RARE G5 S1		М	H 1951-08-04	EDGE OF THICKET, AMONG DENSE VEGETATION.	LAKE MONTAUK NEAR MONTAUK LAKE, EDGE OF THICKET AMONG DENSE VEGETATION.	MONTAUK POINT 41 03 51 N 71 54 51 W	4107118 9
	Empetrum nigrum ssp nermaphroditum BLACK CROWBERRY Vascular Plant	RARE G5T5 S3		М	H 1924-08-07	, i	DITCH PLAINS 1924-08-07: NEAR COAST GUARD STATION, MONTAUK. 1924-08-01: WITHIN 100 FEET OF NORMAN TAYLOR'S LAB, DITCH PLAINS, MONTAUK.	MONTAUK POINT 41 02 23 N 71 55 06 W	4107118 105
	Equisatum pratanse ME ADOW HORSETAIL Vascular Plant	RARE G5 S2		М	H 1937-08-18	•	MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 . 18

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	SUFFOLK								
**	EAST HAMPTON								
	Carex nigromarginata BLACK-EDGE SEDGE Vascular Plant	RARE G5 SH		M	H 1977-06-12	OAK BEECH FOREST. ASSOCIATED SPECIES: ILEX OPACA.	MONTAUK POINT, MARITIME HOLLY FOREST MONTAUK POINT STATE PARK, OAK BEECH FOREST.	MONTAUK POINT 41 04 15 N 71 52 48 W	4107118 111
	Spiranthes vernalis GRASSLEAF LADIES'-TRESSES Vascular Plant	RARE G5 S1		M	H 1937-08-18		MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18
王-2	Agalinis acuta SANDPLAIN GERARDIA Vascular Plant	ENDANGERED G1 S1	LE	М	F 1920-09-13		LAKE MONTAUK GREAT POND MONTAUK, S END OF POND [LAKE MONTAUK].	MONTAUK POINT 41 02 42 N 71 54 53 W	4107118 16
2	Amslanchier nanzucketensis NANTUCKET JUNEBERRY Vascular Plant	END ANGERED G3Q S1	ı	М	Н		MONTAUK POINT	MONTAUK POINT 41 04 13 N 71 51 46 W	4107118 7
	Minuartia caro Eniana PINE-BARREN SAND WORT Vascular Plant	RARE G5 S2		М	Н 1947-06-22	SAND BARRENS, SANDY SOIL	MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18
	Agalinis acuta SANDPLAIN GERARDIA Vascular Plant	ENDANGERED G1 S1	LE	М	F 1927-08-28	dry Hills, open downs.	MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 13
	Carex straminea STRAW SEDGE Vascular Plant	UNPROTECTED G5 S1		M	H 1921-06-27	OPEN MARSH.	CASWELL CLIFF CLIFFS, EAST OF COTTAGES, MONTAUK. OPEN MARSH.	MONTAUK POINT 41 03 08 N 71 52 43 W	4107118 107
	Oenothera oakesiana EVENING PRIMROSE Vascular Plant	Unprotected G4G5Q S2	•	М	H 1923-08-15	SANDY SOIL.	MONTAUK POINT SANDY SOIL, MONTAUK POINT.	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18

Natural Heritage Repor

Species and Ecological Communities

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	SUFFOLK								
**	EAST HAMPTON								
	Spiranthes vernalis GRASSLEAF LADIES'-TRESSES Vascular Plant	RARE G5 S1		М	H 1927-08-20	1927-08-20: MOIST, ROCKY HILLSIDE; 1927-07-30: CATTAIL SWAMP.	BIG REED POND 1927-08-20: MOIST ROCKY HILLSIDE, MONTAUK, SOUTH OF REED POND. 1927-07-30: REED POINT, CATTAIL SWAMP.	MONTAUK POINT 41 04 25 N 71 54 49 W	4107118 108
四一	Platanthera cristata CRESTED FRINGED ORCHIS Vascular Plant	THREATENED G5 S1		М	H 1951-08-01	"APPARENTLY DRY PINE BARRENS".	MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 11 W	4107118 36
22	Nicrophorus americanus AMERICAN BURYING BEETLE Beetle	END ANGERED G1 SH	LE	M	Н		MONTAUK POINT	MONTA UK POINT 41 04 24 N 71 51 46 W	4107118 4 ESU
	Potamogeton pulcher SPOTTED PONDWEED Vascular Plant	UNPROTECTED G5 S2	,	M	H 1938-08-27	IN POOL.	OYSTER POND IN POOL NEAR OYSTER POND. POOL EAST END OF OYSTER POND.	MONTAUK POINT 41 04 06 N 71 53 47 W	4107118

^{*} SUFFOLK, NY STATE WATERS

^{**} EAST HAMPTON, NY STATE WATERS

Natural Heritage Report on Rare Species and Ecological Communities

Prepared 4 October 1999 by NY Natural Heritage Program, NYS DEC, Latham, New York

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Page 8

••	County Town Scientife Name, COMMON NAME, & Group Name	NY Legal Status & Heritage Ranks	Federal Status	Precision & Acreage	EO Rank & Last Seen	General Habitat an d Quality	Detailed Location	USGS Topo Quad Lat & Long	Office Use
	SUFFOLK, NY STATE WATERS EAST HAMPTON, NY STATE WATERS Marine rocky intertidal Community	UNPROTECTED G5 S1S2		S 2	B 1991-09-07	SUBSTRATE IS LARGE ANGULAR ROCKS, CA 2m DIAMETER, APPARENTLY PLACED AT BASE OF STEEP, SANDY BLUFF FOR EROSION CONTROL. ADJACENT LOWER SLOPE OF BLUFF IS RETAINED BY ROCKS IN WIRE BASKETS (FOR EROSION CONTROL). UPPER SLOPE OF SANDY BLUFF IS GRASSY AND	MONTAUK POINT EAST TIP OF MONTAUK POINT, ABOUT 0.15 MILES EAST OF THE END OF ROUTE 27 AND DUE EAST OF THE LIGHTHOUSE. THE EASIEST ACCESS IS ALONG A TRAIL NORTH OF THE LIGHTHOUSE LEADING DOWN TO THE BEACH, THEN FOLLOW SHORE SOUTH TO BASE OF BLUFF.	MONTAUK POINT 41 04 13 N 71 51 26 W	4107118 53

32 Records Processed

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF ENVIRONMENTAL PERMITS REGIONAL OFFICES

REGION	COUNTIES	NAME	ADDRESS AND PHONE NO.
Region 1	Nassau Suffolk	Robert Greene Permit Administrator	Loop Road, Bldg. 40 SUNY Stony Brook, NY 11790-2356 (516) 444-0365
Region 2	New York City	George Danskin Permit Administrator	Hunters Point Plaza 4740 21st Street Long Island City, NY 11101-5407 (718) 482-4997
Region 3	Dutchess Orange Putnam Rockland, Sullivan Ulster, Westchester	Margaret Duke Permit Administrator	21 South Putt Corners Road New Paltz, NY 12561-1696 (914) 256-3059
Region 4	Albany Columbia Delaware Greene, Montgomer Rensselaer, Schenec	· -	1150 N. Westcott Road Schenectady, NY 12306-2014 (518) 357-2234
Region 5	Clinton Essex Franklin Fulton, Hamilton Saratoga, Warren,	Richard Wild Permit Administrator Washington	Route 86 Ray Brook, NY 12977 (518) 897-1234
Region 6	Herkimer Jefferson Lewis Oneida, St. Lawren	Randy Vaas Permit Administrator	State Office Building 317 Washington Street Watertown, NY 13601 (315) 785-2246
Region 7	Broome Cayuga Chenango Cortland, Madison Oswego, Tioga, To	•	615 Erie Blvd. West Syracuse, NY ⁻ 13204-2400 (315) 426-7439
Region 8	Chemung Genesee Livingston Monroe, Ontario, Schuyler, Seneca, Wayne, Yates		6274 East Avon-Lima Road Avon, NY 14414 (716) 226-2466
Region 9	Allegany Cattaraugus Chautauqua Erie, Niagara, Wy	Steven Doleski Permit Administrator voming	270 Michigan Avenue Buffalo, NY 14203-2999 (716) 851-7165

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 700 Troy-Schenectady Road, Latham NY 12110-2400 phone: (518) 783-3932

NATURAL HERITAGE PROGRAM: The Natural Heritage Program is an ongoing, systematic, scientific inventory whose goal is to compile and maintain don the rare plants and animals native to New York State, and significant ecological communities. The data provided in the report facilitate sound, conservation, and natural resource management and help to conserve the plants, animals and ecological communities that represent New York's nat

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-hou use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

NATURAL HERITAGE REPORTS (may contain any of the following types of data):

COUNTY NAME: County where the occurrence of a rare species or significant ecological community is located.

TOWN NAME: Town where the occurrence of a rare species or significant ecological community is located.

USGS 7 1/2 TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).

LAT: Centrum latitude coordinate of the location of the occurrence. Caution: latitude & longitude must be used with PRECISION (e.g. the location of a occurrence with M (minute) precision is not precisely known & is thought to occur within a 1.5 mile radius of the latitude/longitude coordinates).

LONG: Centrum longitude coordinate of the location of the occurrence. See also LAT above.

PRECISION: S - seconds: location known precisely. (within a 300' or 1-second radius of the latitude and longitude given.

M - minutes: location known only to within a 1.5 mile (1 minute) radius of the latitude and longitude given.

G - general: location known to within a 5 mile radius of the latitude and longitude given.

SIZE (acres): Approximate acres occupied by the rare species or significant ecological community at this location.

SCIENTIFIC NAME: Scientific name of the occurrence of a rare species or significant ecological community...

COMMON NAME: Common name of the occurrence of a rare species or significant ecological community.

ELEMENT TYPE: Type of element (i.e. plant, animal, significant ecological community, other, etc.)

LAST SEEN: Year rare species or significant ecological community last observed extant at this location.

EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use with LAST SEEN and PRECISION

A-E = Extant: A=excellent, B=good, C=marginal, D=poor, E=extant but with insufficient data to assign a rank of A - D.

F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.

H = Historical, Historical occurrence without any recent field information.

X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.

? = Unknown.

Blank = Not assigned.

NEW YORK STATE STATUS (animals): Categories of Endangered and Threatened species are defined in New York State Environmental Conservatio Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

E = Endangered Species: any species which meet one of the following criteria:

1) Any native species in imminent danger of extirpation or extinction in New York.

2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CF

T = Threatened Species: any species which meet one of the following criteria:

1) Any native species likely to become an endangered species within the foreseeable future in NY.

2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for the continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environments Conservation Law section 11-0535 (Endangered and Threatened Species).

P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit, however a license to take may be required.

G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law, many normally have an open season for at least part of the year, and are protected at other times.

NEW YORK STATE STATUS (plants): The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservatio Law section 9-1503.

(blank) = no state status

E = Endangered Species: listed species are those with:

1) 5 or fewer extant sites, or

2) fewer than 1,000 individuals, or

3) restricted to fewer than 4 U.S.G.S. 7 1/2 minute topographical maps, or

4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

T = Threatened: listed species are those with:

1) 6 to fewer than 20 extant sites, or

2) 1,000 to fewer than 3,000 individuals, or

3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and 1/2 minute topographical maps, or

4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

R = Rare: listed species have:

1) 20 to 35 extant sites, or

2) 3,000 to 5,000 individuals statewide.

U = Unprotected

V = Exploitably vulnerable: listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the star if causal factors continue unchecked.

NEW YORK STATE STATUS (communities): At this time there are no categories defined for communities.

continued on next page

FEDERAL STATUS (plants and animals): The categories of federal status are defined by the United States Department of the Interior as part of the 1974 Endangered Species Act (see Code of Federal Regulations 50 CFR 17). The species listed under this law are enumerated in the Federal Register vol. 50, no. 188. pp. 39526 - 39527.

'Mank) = No Federal Endangered Species Act status.

- The taxon is formally listed as endangered.

= The taxon is formally listed as threatened.

LT = The taxon is formally listed as endangered in part of its range and threatened in other parts.

E = The taxon is proposed as endangered.

PT = The taxon is proposed as threatened.

C1 = Candidate, category 1 - There is sufficient information to list the taxon as endangered or threatened.

C2 = Candidate, category 2 - The taxon may be appropriate for listing but more data are needed.

3A = The taxon considered extinct by the U. S. Fish and Wildlife Service (USFWS).

3B = The taxon is no longer considered taxonomically distinct by the USFWS and thus is not appropriate for listing.

3C = The taxon has been shown to be more abundant, widespread, or better protected than previously thought and therefore not in need of official listing.

The taxon is possibly extinct.

** = The taxon is thought to be extinct in the wild but extant in cultivation.

Additional codes:

(C2NL) - Heritage code indicating that the taxon is a candidate in some areas, not listed in other areas.

(E/SA) = Heritage code indicating that the taxon is endangered because of similarity of appearance to other endangered species or subspecies.

FEDERAL STATUS (ecological communities): At this time there are no federal status categories defined for ecological communities.

GLOBAL AND STATE RANKS (animals, plants, ecological communities and others): Each element has a global and state rank as determined by the NY Natural Heritage Program. These ranks carry no legal weight. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State. Infraspecific taxa are also assigned a taxon rank to reflect the infraspecific taxon's rank throughout the world.

GLOBAL RANK:

GI = Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres, or miles of stream) or especially vulnerable to extinction because of some factor of its biology.

G2 = Imperiled globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.

G3 - Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g. a physiographic region), or vulnerable to extinction throughout its range because of other factors.

G4 - Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5 - Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

GH = Historically known, with the expectation that it might be rediscovered.

Y = Species believed to be extinct.

- Status unknown.

.IE RANK:

S1 = Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable

S2 - Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.

S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.

S4 = Apparently secure in New York State.

S5 = Demonstrably secure in New York State.

SH = Historically known from New York State, but not seen in the past 15 years.

SX = Apparently extirpated from New York State.

SA = Accidental or casual in the state.

SE = Exotic, not native to New York State.

SP = Element potentially occurs in the state but there are no occurrences reported.

SR = Reported in the state but without persuasive documentation.

SU = Status unknown.

.._4/96

TAXON (T) RANK: The T-ranks (T1 - T5) are defined the same way the Global ranks (G1 - G5) are but the T-rank only refers to the ranky of the subspecific taxon of the species as a whole.

T1 through T5 = See Global Rank definitions above.

Q = Indicates a question exists whether or not the taxon is a good taxonomic entity.

? = Indicates a question exists about the rank.

OFFICE USE: Information for use by the Natural Heritage Program.

SIGNIFICANT HABITAT DATABASE REPORTS (Use of this database is slowly being discontinued as the data is integrated into Heritage databases) REPORT ID: Significant habitat file code.

NAME OF AREA: Site name where the significant habitat is located.

TYPE OF AREA: Type of significant habitat.
COUNTY/TOWN OR CITY: County and town where the significant habitat is located.

QUADRANGLE: Name of the USGS 7.5 minute topographic map where the significant habitat is located.

LATITUDE: Latitude coordinate (degrees, minutes, seconds) for the location of the significant habitat.

LONGITUDE: Longitude coordinate for the location of the significant habitat.

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ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

Table of Contents

- F-1. Memorandum (W/Endorsements) Describing the Revision of Harbor Defense Projects (to Include Montauk Point) in the Continental United States, 19 July 1938 (B-43).
- F-2. Memorandum Endorsement Directing the Acquisition of 486.66 Acres of Land at Montauk, Long Island, New York (Due to a Military Necessity) for an Approved Harbor Defense Installation Site, 26 August 1941 (B-44).
- F-3. Memorandum Changing the Designation of Battery 113 of Montauk Point to Battery Dunn, 10 August 1942 (B-45).
- F-4. Memorandum Regarding the Shipment of 16" Guns for Battery Dunn of Montauk Point, 9 October 1942 (B-46).
- F-5. Memorandum (W/Endorsement) Regarding Housing Construction at Camp Hero, Montauk Point, New York, 14 November 1942 (B-47).
- F-6. Table Containing Information Regarding 6-Inch Gun Batteries, To Include Battery 216 of Camp Hero, circa 1943 (B-48).
- F-7. Table Containing Information Regarding 16-Inch Gun Batteries, To Include Batteries 112 and 113 of Camp Hero, circa 1943 (B-49).
- F-8. Memorandum (W/Enclosures) Regarding the Obscurement of Camp Hero, 4 May 1943 (B-50).
- F-9. Memorandum Regarding the Antiaircraft Defense Project for Camp Hero, 14 September 1943 (B-51).
- F-10. Department of the Army General Orders Regarding Discontinuation of Harbor Defense Sites to Include Camp Hero, 3 January 1950 (B-52).
- F-11. Department of the Army General Orders Placing Camp Hero in an Inactive Status, 3 January 1958 (B-53).
- F-12. Historical Data Card Reflecting Camp Heo History, circa 1961 (B-54).

- F-13. U.S. Naval Institute Proceedings Illustrating the Final Era of American Harbor Defenses, January 1968 (B-55).
- F-14. Letter (w/attachments) Describing the History of Camp Hero (B-56).
- F-15. Book Exerpt Showing the Lineage of Coast Artillery Regiments, the $11^{\rm th}$ and $242^{\rm nd}$ Coast Artillery Regiments were Assigned to Fort H.G. Wright and Manned Camp Hero During World War II, 1984 (B-57).
- F-16. Book Exerpt Describing Camp Hero Activity, unknown date (B-58).
- F-17. United States Air Force Book Exerpt Provides a Historical Summary of Air Force Radar Equipment at Camp Hero/Montauk, 1984 (B-59).
- F-18. Defense Environmental Restoration Program Site Eligibility Policy Clarification for Ordnance and Explosive Waste at Formerly Used Defense Sites1, 5 March 1994 (B-143).

DECLASSIFIED
Authority Aut

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War Department The Adjusts Semeral's Office Washington

AG 660.2 (7-15-38) (M1sc.)-8

July 19, 1938.

Subject: Ravision of Marbor Defense Projects, Continental United States.

SECRET
Auth: T.A.G.
Initials: E.R.H.
Date: July 19, 1938

To: President of the Harbor Defense Board-

- 1. With reference to the recommondations contained in paragraph 3 of your letter (AC 660.2 (4-26-36)), dated April 26, 1938, subjects "Revision of Martor Defense Projects, Continental United States", this submission of subtitional information is desired concerning the following:
 - a. Thether or not the batteries and accessory installations proposed in subparagraphs 3 s. b. and c. will be located on existing military reservations, or will require the possetime acquisition of additional real estate.
 - b. Where location of defensive elements would require the acquiration of real estate, such information as can be tentatively furnished, covering the extent and location of such-sequisitions.
 - c. The extimated cost of:

Batteries - including auxiliaries, as for example, magazines, fire control stations, power plants, etc.

Additional Real Estate - where previous estimates are available, the percentage increases of the new estimate over the old.

Additional barracks, quarters, power plants, sewerage, etc.

d. The increase or decrease in estimated cost of the proposed installations as compared to those included in the present approved projects for the areas concerned.

INCLOSUMS 2.

- 1 -

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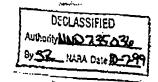
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e. The increase or decrease in personnel requirements for peacetime maintenance at the proposed installations, as compared to those included in present approved projects.

By order of the Secretary of Sar:

E. R. Householder. Adjutant General.

662.1/1-2

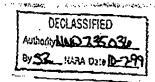
let Ind.

War Department, Office, Chief of Coast Artillery, July 30, 1938. - To: The Adjutant Conerel.

- l. Reference is made to paragraph l \underline{a} , basic letter. (Acquisition of additional land.)
- a. IOS ANGELES AND SAN DIEGO. It is understood that as a result of recommaissences made by the Chief of Engineers, available sites on military reservations for 16-inch fixed gun batteries of two guns each can be utilized in the vicinity of fort Rosecrons and in the vicinity of Fort MacArthur. Accordingly no peace time acquisition of additional real estate appears to be required at those stations. The precise location of sedecest betteries should originate with the local site board (paragraph 30. AR 100-20).
- b. MONTAUK POINT. The approved site board report (Report of the Earbor Defense Board of First Corps Area (OCCA 662/CD-21, 1-30-33)) provides for a 100 acre site in the town at East Hampton, Suffolk County, Long Island, New York, for the location of a 16-inch fixed gum battery of two gums at Montauk Point. This location was provided as an alternate site for the railway battery now in the approved project. Reference is made to the 5th Indorsement, subject "Recommendation for Acquisition of Land for Seaccast Armament, Harbor Defenses of Marragansett Bay and Long Island Sound" dated the Headquarters, First Corps Area, May 3, 1936 (CCCA SCCL)[1-3], which states the roat of the land in question was at that time approximately \$50,000. The fire central stations and accessories for the land railway battery in the approved project apply without modification to the proposed 16-inch fixed gum battery of two guns.
 - c. CAPE HIMIOPAN. A site for the 16-inch fixed gun battery

- 2 **-**

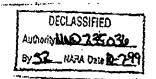
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of two guns proposed at Cape Henlopen, Delaware, is available on the United States Fort Reservation, shown on Exhibits 7-A and 8-A of the approved project of the Harbor Defenses of The Delaware, Inclosure 1 and 2. The present approved site of the 14-inch railway battery is on the quarantine station owned by the United States and contiguous to the United States Fort Reservation. Accordingly no peace time acquisition of real estate is required. The fire control stations and accessories for the 14-inch railway battery in the approved project apply without modification to the proposed 16-inch fixed gun battery of two guns.

- d. CAPE CHARLES. The installation of a 16-inch fixed gum battery of two gums in the vicinity of Cape Charles, Virginia, will require the acquisition of approximately 100 acres of land, unless the bettery is located on Fishermans Island, owned by the United States. An estimate of \$250 per acre, total \$25,000 was submitted by Mr. H. A. Wise, Cape Charles, Virginia, on July 15, 1938, as a fair value of farm land in that vicinity. The peace time acquisition of land for distant fire control stations for this proposed battery is not considered necessary. The precise location of seasonate batteries should originate with the local site board (paragraph 30, AR 100-20).
- e. CAPE NEWH. Due to the restricted area of Fort Story, it is impossible to state at this time whether a two gun 16-inch fixed seaccast battery can be installed there without the procurement of additional land. It is a question requiring consideration by the local site board. However, a map study does indicate possibility of emplacing such a battery on the present reservation. The installation of a 16-inch fixed battery was approved by the Secretary of War in the 35th Indorsement, dated the War Department, August 9, 1929 on letter subject "Inquiry as to land available mear Cape Henry, Virginia, for 15-inch gun battery approved for Tort Story, Virginia," dated The Adjutant General's Office, April 30, 1926, (AG 172.3M 1-30-26)(Misc. B)(OCCA 662/6-228), but at a later date a 14-inch railway battery was substituted in the project for the 16-inch battery. The Secretary's approval provided for the acquisition of 35.9 acres of Sand southeast of Fort Story at an estimated cost of \$144,000. It is understood that this land has now increased greatly in value and probably could not be purchased for less than \$359,000.
- 2. Reference is made to paragraph I b. basic letter. (Extent of acquisitions).
- a. MOWTAUK POINT. The extent and location of the 100 acre tract required for the 16-inch fixed gun battery of two guns at Kontauk Point is shown on Exhibit 14-B of the approved project for the Harbor Defenses of long Island Sound. The site is located in the town of East



Hampton, Suffolk County, Long Island, New York, Inclosure 3.

b. CATE CHARLES. The location of the 100 acre tract required for the 16-inch fixed gun battery of two guns in the vicinity of Cape Charles, Firginia, will be on the mainland of Cape Charles, shown on Exhibit 3-A of the approved project for the Harbor Defenses of Chasapeake Bay, Inclosure 4, or on Fishermans Island, shown on Exhibit 24-B of same project, Inclosure 5.

g. CAPE HENEY. The location of the 38 acre tract which may be required in order to install the 16-inch gun battery at Fort Story is shown on Exhibit 2-A to the approved project for the Harbor Defenses of Chesapeake Bay, Inclosure 6.

3. Reference is made to paragraph 1 c, basic letter. (Estimated costs).

a. The estimated cost of datteries, including auxiliaries, as, for example, magazines, fire control station, power plants is abown on Inclosure 7.

'b. The estimated costs of additional real estate, where previous estimates are available and the percentage increases of the new estimates over the old are shown as follows:

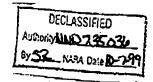
Location	Original Cost Estimato	Increase
Montauk Point	\$ 50,000	None. Estimate made in 1938.
Cape Charles	25,000	None. Estimate made in 1938.
Fort Story	144,000	150%. \$1,000 per acre in- creased to \$10,000 per acre.

c. Additional power plants, sowerage, etc. Power plants and battery sewerage are included in the cost of emplacement shown on Inclosure 7. No additional barracks and quarters are required.

4. Reference is made to paragraph 1 \underline{d} . basic letter. (Comparison of costs).

a. The increases or decreases in estimated cost of the pro-

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posed installations as compared to those included in the present approved project for the areas concerned are shown on Inclosure 7.

b. To summarize, it is estimated that:

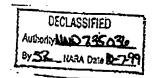
- (1) To substitute 16-inch fixed batteries of two guns each for the 14-inch railway batteries now included in the projects for Montauk Point, Cape Henlopen, and Fort Story will cost a total of \$2,529,950 in excess of the cost of the 14-inch railway batteries. If land is to be procured at Fort Story it may be necessary to add as much as \$389,000 to this figure.
- (2) To substitute a two gun 16-inch fixed battery at Cape Charles for the 14-inch railway battery now approved for Fort Moarpe will cost \$1.035,974 in excess of the cost of the 14-inch railway battery; and
- (3) To sugment the defenses at Fort Rosecrans and Fort MacArthur by a two gun 16-inch fixed battery at each place will cost a total of \$4,258,190.
- 5. Reference is made to paragraph 1 e, basic letter. (Personnel requirements). The increases in personnel requirements for peace time maintenance at the proposed installations as compared to these included in present approved project:

Harbor Defenses of Los Augeles 1 NCO 6 Privates Harbor Defenses of San Diego 1 NCO 6 Privates Montauk Point None

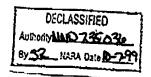
Montauk Point None
Cape Henlopen None
Cape Charles None
Fort Story None

Location

Upon installation, the 16-inch fixed gum batteries of two-gums each will probably be constituted in Class B for maintenance, on a caretaking status. The same personnal required to maintain 14-inch railway batteries will be required to maintain the proposed 16-inch fixed gum batteries of two gums each. One non-commissioned officer and six privates are required additionally for the maintenance of each of the 16-inch fixed batteries of two gums proposed at the Harbor Defenses of San Diego and the Harbor Defenses of Los Angeles. This additional personnel can be made available from present garrisons of those harbor defenses.



- 6. The type of two gam 16-inch fixed emplacement referred to in the foregoing terminations is that recommended by the Chief of Engineers for future two gam 16-inch fixed emplacements, in letter to The Adjutant General, dated May 31, 1938, subject "Type Emplacement, 16-inch gam on Barbette Sarrings with Steel Cover Protection," (C of 2 562B) (OCCA 662/B-22). The exchange cost of Engineer work for a battery of this type exclusive of land and reserve samunition storage, is given as \$950,000 in the same letter. The Granance cost of installation, including overfload obver, is \$1.040,000 per battery. In this regard reference is made to 2d Indorsement dated July 15, 1938, on same letter (00 660, 2/299)
- 7. The foregoing tabulations of relative costs of li-inch railway and 16-inch fixed batteries of two guns indicate the lesser cost of the railway battery. However, it is desired to point out the deficiencies of major caliber railway artillery gum batteries.
- a. The li-inch railway batteries installed in Panama and in the Harbor Defenses of Los Angeles have not proved satisfactory in all respects. Mumerous operating deficiencies have developed which are inherent with major caliber railway gum batteries.
- . b. The 14-inch railway gun has less power, less accuracy, and is considerably more difficult to maintain than the 16-inch fixed mount.
- c. The 14-inch reilway mount requires that an expensive gun block be installed before a traverse greater than 7 degrees can, be effected.
- d. On the same coast, the 14-inch railway gwn has no tactical mobility, since it cannot be moved from place to place in anticipation of attacks from a highly mobile hostile fleet.
- e. It is practically impossible to protect the liminch railway gun by material overhead cover.
- f. Camouflage for a il-inch railway battory is very difficult, for the telltale railway tracks always point to the emplacement.
- g. Since the 14-inch railway gum is not tactically mobile, an aqual number of 14-inch railway gums will be required as would be needed if 16-inch fixed gums were substituted.
- h. A 16-inch fixed gum battery is much more powerful, more accurate and can be given overhead protection.



i. The transient status of reilway bridges and access tracks and the effect of weather conditions on railway road beds are deficiencies always to be encountered in the employment of major caliber railway artillery gun batteries. If, as is doubtful, a 14-inch railway gun can be taken over the present tracks and treatles, it is most improbable that such movement could be made two years from now either in the region of Cape Henry or Cape Charles. In these cases the serving railroad facilities are said to be schoduled for abandonment.

8. It is believed the importance of the missions assigned to the harbor defenses in the Continental United States justifies the additional expense involved in the substitution of 16-inch fixed betteries for 14-inch railway batteries.

OSCAR WESTOVER, Major General, Chief, Air Corps. President, Harbor Defense Board.

7 Incls.
(I=6 Exhibits
7 Cost data in dup.)

(Inclosures omitted)

- 7 -

SECRET

SUBJECT: Asquisition of Land, Montauk Point, Long Island, M. Y.

AG 601.1 (6-14-41)180-D

11th Ind.

LFL/gmd-1712

War Department, A.Q.O., August 26, 19Al. - To: Under Secretary of

The Secretary of War directs that you be advised as follows:

. There is a military necessity for the acquisition of approximately 468.666 acres of land at a cost of approximately \$275,000, at Montauk, Long Island, M. I., as a site for approved harbor defense installations, as outlined in the inclosed papers.

b. Funds for this project will be made available by the Chief of Coast Artillery and the Chief of Engineers.

e. So much of these papers is removed from a confidential status as is necessary to acquire the land in question.

CARL ROBINSON

19 Incle. n/c

Adjutant General.

COPIES TO: V Chief of Coast Artillery, ref. his 9th Ind., August 12, 1941, 601/13-D., w/cy of 10th Ind. Chief of Engineers, ref. his 8th Ind., August 6, 1941, C. of E. 662B(Long Island)69, w/cy of 9th & 10th Inds.

Commanding General, First Corps Area, w/cy of basic ltr., lst, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th & 10th Inds.

601/13-D

- 11 -

SUBJECT: Designation of Battery 113.

TO:

Chief of Engineers.

Battery 113 at Montauk Point, Harbor Defenses of Long Island Sound, is designated "Battery Dunn" in honor of the late Colonel John M. Dunn.

By order of the Secretary of War:

Adjutant General.

Copies furnished:

Commanding Generals:
Army Ground Forces.
Army Air Forces.
Services of Supply,
All Armies.

All Service Commanders, Chiefs of Supply Services, Services of Supply. Divisions of the War Department General Staff. Publication Branch, AGO.

Chief, Statistics Branch, War Department General Staff.

Commanding Officers:

Augusta Arsenal, Ga. Benicia Arsenal, Calif. Raritan Arsenal, N. J. Rock Island Arsenal, Ill. San Antonio Arsenal, Tex.

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CHIEF OF ENGINEERS

CHIEF OF ENGINEERS

F-3

Document F-4 will be forwarded when new originals are obtained from our NCR contractor

TO INSURE PROMPT ATTENTION IN REPLYING REFER TO:

WAR DEPARTMENT

OFFICE OF THE CHIEF OF ORDNANCE

WASHINGTON, D. C.

ATTENTION OF

October 9, 1942.

SPOIR

Subject: 16" Guns, Battery Dunn, Harbor Defense of Long Island Sound, Montauk Point, Long Island, New York.

Office of the Chief of Engineers, Washington, D. C.

1. In order to relieve storage conditions at the Watervliet Arsenal, it will be necessary to make immediate shipment to the above installation of the 2 - 16" guns assigned to Battery 13. It is under stood that such an arrangement will be satisfactory to your office and the District Engineer, New York, N. Y.

It is also understood that the District Engineer will arrange for the delivery of these guns from the railroad terminus to the battlery site, and funds to cover this movement will be furnished on receipt of information as to the amount involved.

Accordingly, shipping order number 128636 has been issued to cover the above shipment, and a copy of this order forwarded under separate cover.

For the Chief of Ordnance:

D. B. WILLETS, Major, Ord. Bept., Assistant.

W

Copy to50District Engineer, New York.

757 Commanding General, First Service Command.

is wolonel Chamberlain, Coast Artillery Advisory Complette Office of Chief of Engineers, Room 6131, Hew and

Oldg., 21st and Virginia ave., II. ...

Field Dervice, General Supply (Er. Morris)



SECRET

, 14

BR Sude Research: Rock Island District FUDS Project

DOCUMENT REPORT

FUDS SITE NAME: Camp Hero, NY

REPOSITORY: NARA – Archives II

LOCATION INFORMATION: RG 77 (Records of the Office of the Chief of

Engineers)

Entry 1011: Security Classified Subject File, 1940 -

1945 Box 475

DOCUMENT SHORT TITLE: Letters and Tables Relative to Facility Construction,

Camp Hero, 27 October – 20 November 1942

SPECIAL INFORMATION:

(XX) BEST POSSIBLE COPY QUALITY:

RESEARCHER: BR Sude

DATE: 1999

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CCONFIDENTIAL

Construction, Georgia Conservay St., Boston, Mass. Program Committee - washing.

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Movember 14, 1942.

Melery Bounds Commitmention, these Serv. Boutant Point, New York,

Commanding Seneral, Bastern Defense Command, Severmore Island,

2. Debuttied herestly to a proposed Layout and cost estimate for the sousing feetlistes for approximately 600 man and 37 afficers, prepared by the Mabriet Angineer, New York City, New York, for Comp Moro, Montank Point, les lerk.

2. The estimated cost of \$616,500,00, is based on using Theater of Sperations type construction, modified in size and layout to simulate farm groups comparable with those existing in the vicinity.

3. The camp having a Penote lecation, would necessitate a complete cantingent, to include burracks, mees balls, hospital, administration building, warehouses, moter repair shop, recreation building, mater supply and

Account stance (C) south alstane of all spanned its solders out ... betteries. The Oxfor of Regimery is estimated to be specific approximately exposure protective concediment of those patheries. It would be most amelian to sullity the motivalisant of these bettering by home ing the personnel in Lants, or the conventional groups of buildings of the standard Theater of Operations type.

I. Printly on sometiment and lated of hereal language of the housing projects & to E inclusive are an Rellowit

by let Principality all speciality of

Personal Publications Beer Ball

I fragery supply and ability firstless bulleting

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motion, Camp Sere, Econ.

2. Sand Priority—Silve G. Consisting and

4. Serreche (Citions)

6-3-45 (hty fr MES, Boston, Mass., file 600.1, dated Mor. 14, 2912, subj. "Mousing protraction, Camp Bore, Montank Point, Men Torks - wont (4.)

Date of accomplishments 6-1-1. Ressons Pire protection of nonly constructed buildings.

- 4. 14h Priority-dite &, bonsletiss of
 - I Administration Building
 - 1 Bard, S.S
 - 1 Heating Room

Date of accomplishments 5-1-13. Reason: Provision of medical facilities for unit assigned.

2. 3th Priority—Site P, consisting of

- 1 Barehouse
- A Motor Repair Shop

Date of secomplishments 6-1-43. Beasons Provision of storage and repair facilities for dail

- I. 6th Priority—Site E, consisting of
 - 1 FX and P.O.
 - 1 Recreation Building

Date of accomplishments 6-1-13. Reasons Prevision of facilities for unit assigned.

A. 7th Priority-Bite E, commisting of

Albertation to two (2) intenting buildings 2 Directs (Balleton)

Selver Boundary and American Selvery 216.

GOVE DE LA

G Barracks (Ballstell Hen) I Moss Rall 1 Company Supply and Administration Building Date of accomplishments 11-1-13.
Reason: Housing of whit for maining Battery 112, which will be completed about 11-1-43. 9th Priority-Site C, consisting of: 2 Barracks (Officers) Date of accomplishments lini-49-Reason: Housing same as h above. ligh Priority-Site D, consisting of: 5 Barracks (Enlisted Men) 1 Kess Hall 1 Headquarters Date of accomplishment: 11-1-13. Resons Provide housing for camp overhead. to. It is requested that authority be granted and funds allotted for the construction of the Modified Theater of Operations buildings at Camp Hero. **然轻蒸**机 其其殊其 are no funds evallable at this headquarters for this construc-All preperty involved is now owned by the government and no bousing nty military necessity 国家是事. 5977 1942 E. T. Block Incles (In tripl). Major demoral: Blig. fl-frelizinary fepting Layout IST ARMY AGO

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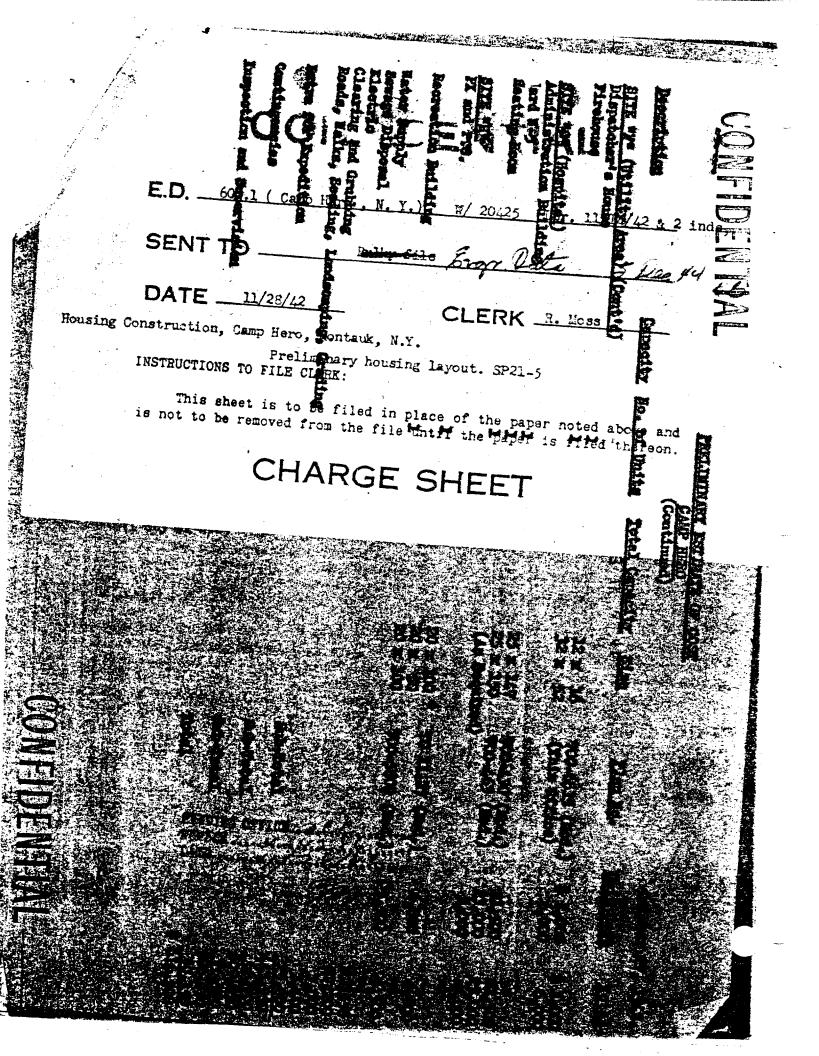
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to the angiometring abelyals and most setimate of \$616,900.00 is approved by this headquarters. The priority of accomplishment set forth in part I of basic latter is also approved.

3. Accomplishment of this bouning is necessary to provide suitable Accomplations for the personnel manning the new batteries in this vicinity.

For the Commending Seneral!

2 Inches 1/2 (in dup)

Copy Lot - 60 E28 Booker, Bass. S. E. SENIOR, TLT Col., A. G. D., Ass' Adjust General Document F-5 will be forwarded when new originals are obtained from our NCR contractor

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Lir ir Mrs. Boaton Office Courseway St., Boston, Mass. Lar ir mis, Boards, officers

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November 14, 1942.

Supports Housing Countraction, Casp Sero, Soutest Point, Now York,

TUT Commanding General, Restorn Defense Command, Governorn Taland

L. Duballised accepted to a proposed Layout and cost colleges for the tone in Tabilistes for approximately box ser and 37 Englant, prepared by the Marriot Engineer, New York City, New York, Lor Comp Moro, Montank Point,

2. The estimated cost of \$616,500.00, is based on mainty Theater of Operations type sonstruction, modified in else and layout to simulate farm groups comparable with those axisting in the vicinity.

the camp having a remote location, would necessitate a complete castlement, to include berracks, sees halk, hospital, atministration of iding marehouses, motor repair shop, recreation beliding, mater supply and

The reservation at Montank is to contain three () modern sanguat betteries. The Chief of Engineers is estimated to be spending approximately \$90,000.00 for the matters protective concellment of those butteries. It sould be most emmise to smillly the soudesland of these better he by loss. ing the personnel in lants, or the conventional groups of buildings of the standard Theater of Operations type,

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L'Hope Ball

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(Ltr fr BES, Boston, Mass., file 600.1, dated Nov. 11, 1912, subj. "Housing Construction, Camp Hero, Montank Point, New Yorks - cont d.)

b. 2nd Priority-dite 0, Consisting of

1 Barracks (Officers)

Date of accomplishment; 6-1-13. Reasons Bane as a above.

a. Srd Priority-Site F consisting of

1 Pirehouse

late of socomplishments falls. Reasons Fire protection of newly constructed buildings.

4 Att Triority Site &, sometitles of

- Administration Building
- 1 Berd, #-S
- 1 Heatling Room

Date of succesplishment; 6-1-13. Reason: Provision of medical facilities for unit assigned.

e. Jul Priority—Site P, consisting of

- 1 Farehouse
- 1 Motor Repair Shop

Date of accomplishment; 6-1-43. Beasons Provision of storage and repair facilities for unit

I. 6th Priority-Site H, consisting of:

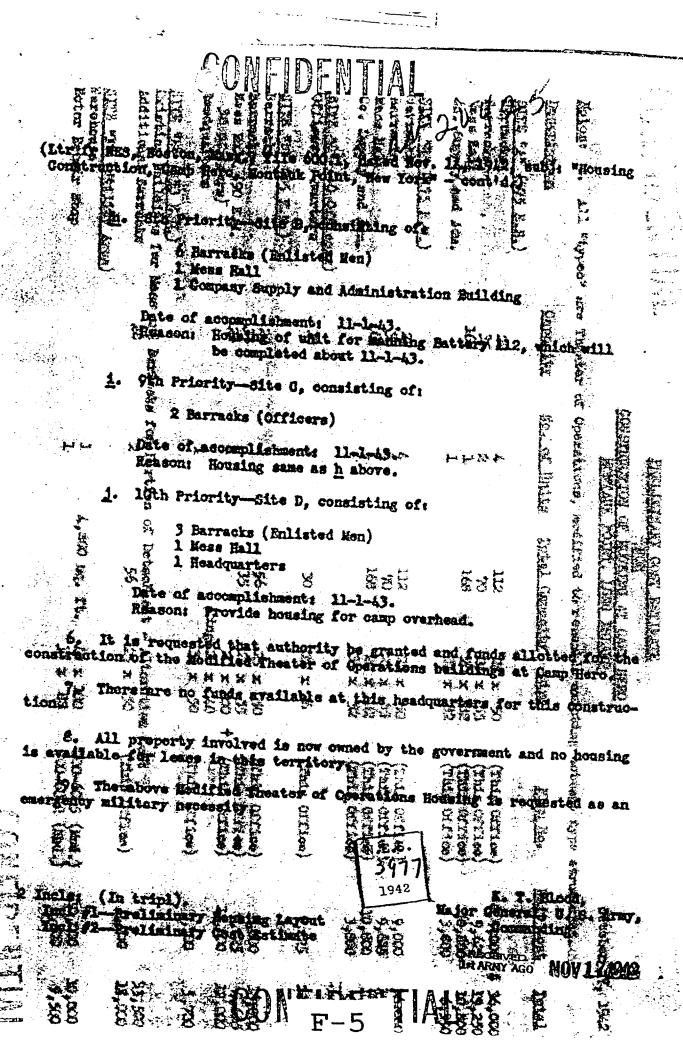
1 PX and P.O.

1 Recreation Building

Date of accomplishment: 6-1-43. Reasons Provision of Capilities for unit assigned.

g. 7th Priority_Site E, consisting of:

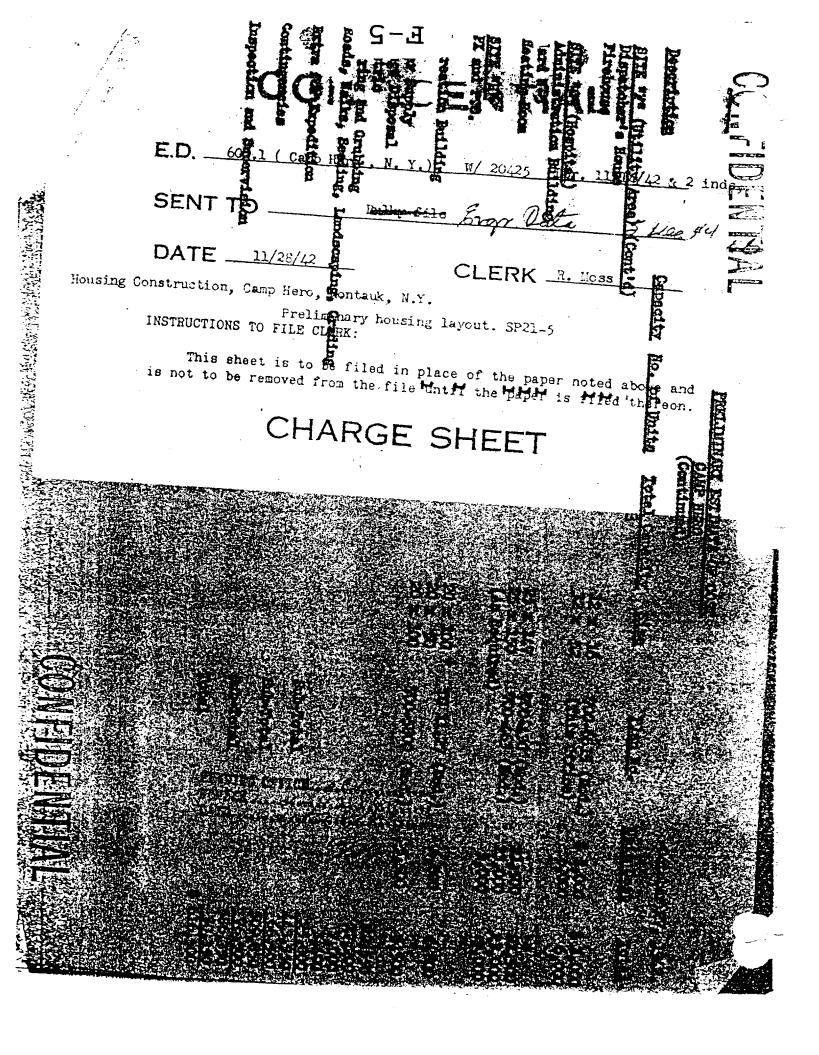
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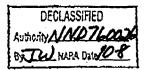
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Fittical, A. G. D.,
Asst Adjulant General



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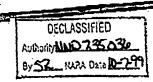
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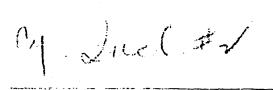
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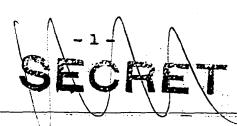
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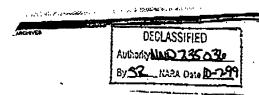
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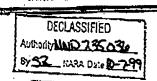
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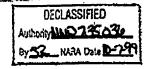
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* Informal information from Operations Division, War Department General Staff (Lt. Colonal Wilson).

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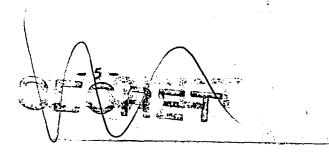
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* Informal information from Operations Division, War Department General Staff (Lt. Colonel Wilson).



8-INCH BATTERIES

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BFD/clm

May 4, 1943

CE 618.33(Long Island) Ref. CM 39922 and CM 40101

Obscurement of Camp Haro, Long Island, N. Y., and Highlands, New Jersey.

Col. Albert H. Burton. Fortifications Branch, Construction Division, C.C.E. The Chief, Engineering Branch, Construction Division, O.C.E. ATTENTION: Col. Saint-Gandens Rm. 7002.

1. There are inclosed herewith:

g. Letter dated February 19, 1943, from the Bistrict Engineer, New York, New York, subject "Coscurement of Camp Hero, Long Island, New York file C. of E. 618.33(Long Island)CH 39922.

h. Letter from the District Engineer, New York, New York, dated March 19. 1943, subject "Obscurement of Highlands, New Jersey" file 618.33 (Highlands, New Jersey) CM 40101.

- Your comments and recommendations are requested as to the adequacy of the proposed plans as recommended by the District and Division Engineers.
- 3. In this connection attention is invited to Paragraph 2 a 9 of War Department directive subject "Passive Protection Measures" dated March 5, 1943, file AG 381(2-25-43)GB-S-SPAAC-N.
- 4. This office has previously issued directives that camouflage nets should be procured and installed in front of the guns of the casemated batteries.
- 5. Funds requested have already been made smallable in separate correspondence. As these are fiscal year funds and must be obligated prior to June 30, 1943, decision as to the scope of the work to be done must be expedited. Accordingly, prompt reply by your Branch is desired.

2 Incls:

C. of E. 618.33 (Long Inland) CM 39922, w/5 Inds. and 7 incls., (Incls. in dopl.)

C. of E. 618.33 (Highlands, H. J.) CH 40101, w/ 3 Inds. and 7 inels.

DECLASSIFIED

BFD

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t NY 44.1/6.18

Fort NY 44.1/6.18 (NYE-2L)

WAR DEPARTMENT UNITED STATES ENGINEER OFFICE NEW YORK DISTRICT ROOM 601, 120 WALL ST. NEW YORK, N. Y.

February 19, 1943.

Subject: Obscurement of Camp Hero, Long Island, N. Y.

To:

The Chief of Engineer.

U. S. Army,

Washington, D. C.

Thru:

The Division Engineer, North Atlantic Division.

618.33 (Long Island)(2-19-43 Reference is made to Circular Letter No. 1086 dated January 17 1942, subject: "Dispersion, Concealment, and Camouflage of All Camps and Stations."

- Forwarded herewith is a preliminary study of the obscurement of Camp Hero, Long Island, N. Y. The following items are included:
 - a. An aerial photograph of Camp Hero and vicinity.
- b. A tone rendering of the proposed scheme for the obscurement of Camp Hero.
 - c. A working layout for the same.
- d. A detailed estimate of the construction cost for the obscurement of Camp Hero.
 - The construction is estimated to cost:

Total Cost

\$ 297,703.00

Funds previously

authorized 157,703.00

Additional funds

necessary

\$ 140,000.00

This office recommends that the work listed in the estimate be authorized and instructions for the same be forwarded to this office at the earliest possible date.

4 Incls.

#1-Aerial Photo (In tripl.)

#2-Tone Rendering "

#3-Dwg. CAM-21-8 "

#4-Prel. Estimate *

/s/E. W. GARBISCH, Lt. Col., Corps of Engineers, Acting District Engineer.

CONFIDENTIAL

Subject: Obscurement of Camp Hero, Long Island, N.Y. (2-19-3)

NA 618.3 (Camp Hero, L.I., N.Y.) 1

lst Ind.

NADE 4

Office, Division Engineer, NORTH ATLANTIC DIVISION, New York City, Warch 4, 1943

To: The District Engineer, NEW YORK, N.Y.

- 1. The following additional information is requested to accompany the preliminary study of the Obscurement of Camp Hero:
 - a. Paragraph 1. Reference should also be made to paragraph 6, Circular Letter No. 1216, dated February 17, 1942.
 - b. General plan showing all batteries, plotting rooms, control posts, fire towers, and other vital installations. Also the locations of cantonment and other building areas, lighthouse, parking spaces, hotels, ponds, etc., both within and adjacent to the reservations. It is impossible to adequately review the project without having this complete information.
 - c. Reference is made to item "Ground toning 85,000 sq. 7ds. 4 10¢". What treatments are proposed and the locations of same.
 - d. Reference is made to item "Grading 36,650 cubic yards @ \$1.00". Where and for what purpose is the grading to be carried out.
 - e. State Obscurement measures accomplished to date.
 - f. The altitude from which the aerial photographs submitted with the basic communication were made, together with the focal length of the camera. If available, the submission of oblique photographs is also requested.
- 2. Your attention is invited to the fact that basic communication has not been signed.

For the Division Engineer:

/s/CLARENCE E. BOESCH Colonel, Corps of Engineers

4 Incls. n/c (1 copy withdrawn)

DECLASSIFIED

E. O. 12356, Sec. 33 73 5 3 6

CONFERENTIAL

CONFIDENTIAL

Fort NY 44.1/6.18 (NYE-2L)

Subject: Obscurement of Camp Hero, Long

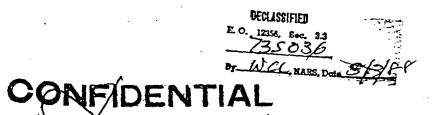
Island, N. Y.

2nd Ind.

U. S. Engineer Office, New York District, New York, N. Y. March 16, 1943. To: The Division Engineer, North Atlantic Division.

- Reference is made to paragraph 1 of the 1st Indorsement. The following information is furnished:
- a. Par. 1 b: Inclosure No. 1 is marked to indicate the locations of the following features:
 - 1-AM-1.0.
 - 1-AM-1.1.
 - 1-AM-3.0.
 - 3-AM-0.41.
 - 3-am-0.42.
 - 3-AM-0.31.
 - 3-AM-0.85.
 - Reservoirs.
 - Access Roads.
 - (10) Lighthouse.

 - (11) Proposed locations for cantonment area.
 - (12) Parking space.
 - (13) Old hotel.
 - (14) Ponds.
- b. Par. 1 c: "Ground toning 85,000 sq. yds. @ \$.10" applies to a spray application of bituminous coating or equal on the access roads.
- c. Par. 1 d: "Grading 36,650 cubic yards @ \$1.00" applies to obscurement grading on casemated installations.
 - d. Par. le: Obscurement measures accomplished to date include:
 - (1)A portion of the planting on the scarred areas along access roads.
 - (2) A portion of the planting at 1-AM-3.0.
 - A portion of the obscurement grading as defined in (3) par. 1 c above.



COMPTENTIAL

Fort NY 44.1/6.18 (NYE-2L)

Subject: Obscurement of Camp Hero, Long Island, N. Y.

2nd Ind. (Cont'd.)

- e. The following data apply to the aerial photograph:
 - (1) Date: November 22, 1942.
 - (2) Hour: 12-30 PM EWT
 - (3) Altitude: 10,000 feet.
 - (4) Lens: 12" focal length.
 - (5) Approx. Scale: 1" 833'. (The reproduction is approximately 1" = 800'.

Prints of three oblique photographs are also inclosed.

For the Acting District Engineer:

/s/CHARLES K. PANISH
Lt. Colonel, Corps of Engineers
Executive Assistant

7 Incls.
#1-Aerial Photo (In dupl)
#2-Tone Randering " "
#3-Drwg. CAM-21-8 " "
#4-Prel. Estimate " "
Added:
#5-Oblique Photo No. 308.81 (In trip.)
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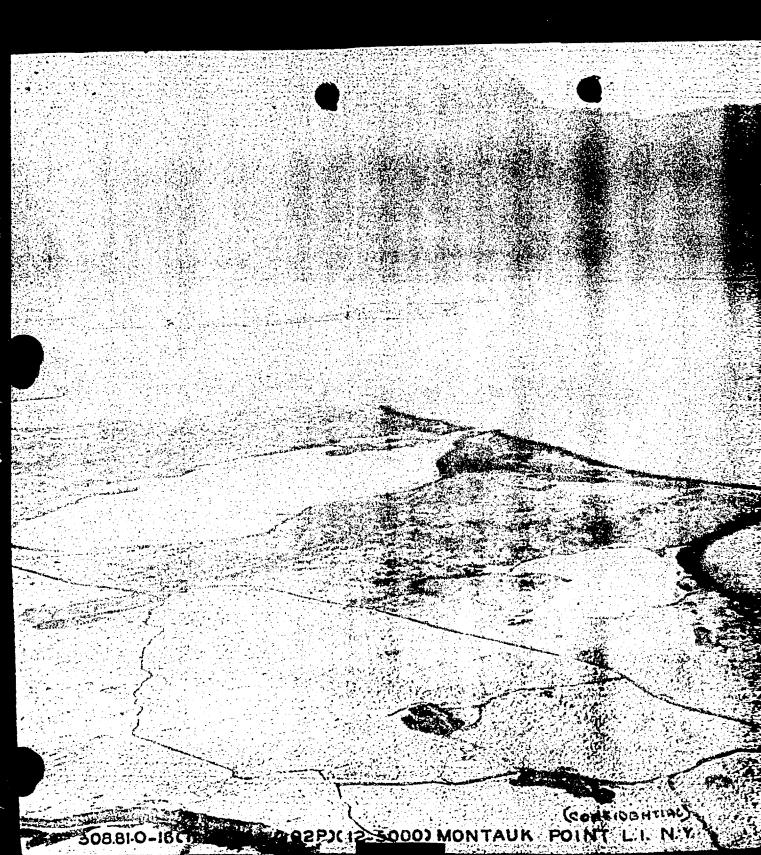
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Planting and Mulching 1,500,000 sq. 15. C 12	NEW YORK
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Sprinklers - lump sum (at larger solver and	3 , 500
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308.82-0-16(11-22-42-1:03P)(12-5000) MONTAUK POINT LI. N. Y.



Document F-9 will be forwarded when new originals are obtained from our NCR contractor

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Cal Cotter

SUBJECT: Antimircraft Defense Project for Camp Hero.

AG 660-2 (2 Sep 43)0B-5-E

lat Ind.

KLB/mdd - 2B-939 Pentagon.

WD, 400, 14 September 1943.

. To: Commanding General, Eastern Defense Command.

- 1. No fixed anticircraft armament is available or under procurement, nor scheduled for fiture production.
- 2. The antiaircraft defense of the Fort Pond-Gamp Hero area should be provided for by mobile or semi-mobile antiaircraft units under the control of the Commanding General, Eastern Defense Command, in accordance with the priority and importance of the area as determined by you.

By order of the Secretary of War:

L E. Fleur Adjutant General.

INFORMATION COPY TO: (w/Cy basic letter) Mirector, Requirements Division, Army Service Forces (Attention: Seacoast Defense Projects Branch).

660,2/13-A-

(NOTE.-DA General Orders 55, 1949, is the last of the series for 1949.)

General Orders)
No. 1

DEPARTMENT OF THE ARMY
Washington 25, D. C., 3 Jan. 1950

- V. HARBOR DEFENSES.-1. Effective as of 1 January 1950, the following harbor defenses were discontinued:
- 2. Effective as of 31 December 1949, Fort H. G. Wright, Fishers Island, New York, and <u>Camp Hero, Montauk Point</u>, Long Island, New York, a subinstallation of Fort H. G. Wright, are excess to the needs of the Department of the Army.

BY ORDER OF THE SECRETARY OF THE ARMY:

OFFICIAL:

EDWARD F. WITSELL Major General, USA The Adjutant General J. LAWTON COLLINS Chief of Staff, U. S. Army (Note: DA General Orders 61 is the last of the series for 1957)

GO 1

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GENERAL ORDERS

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., 3 January 1958

No. 1

I.GENERAL COURTS-MARTIAL. The Commanding Officer, Seventh United States Army Support Command, Kefertal, Germany, is designated by the Secretary of the Army, pursuant to the Uniform Code of Military Justice, Article 22 (a) (6), to convene general courts-martial, effective 6 January 1958. [AG 250.401 (3 Jan 58)]

II. KANSAS CITY CHEMICAL PLANT, MISSOURI. Effective 15 December 1957, the Kansas City Chemical Plant, Missouri, a Class II industrial activity, under the jurisdiction of the Chief Chemical Officer, located at the Kansas City Records Center, Missouri, a class II installation under the jurisdiction of The Adjutant General, is discontinued. The facilities formerly comprising the Kansas City Chemical Plant are consolidated with and made a part of the Kansas City Records Center, Missouri.

[AG 323.3 (12 Dec 57)]

III. CAMP HERO, NEW YORK. Effective 31 December 1957, Camp Hero, New York, a class I subinstallation of Fort Totten, New York, is placed in an inactive status.

[AG 323.3 (30 Dec 57)]

IV_SIGNAL CORPS PACKAGING STANDARDS OFFICE. Section II, DA General Orders 41, 1956, is rescinded.

[AG 323.3 (12 Dec 57)]

By Order of Wilber M. Brucker, Secretary of the Army:

MAXWELL D. TAYLOR, General, United States Army, Ohief of Staff.

Official:

HERBERT M. JONES, Major General, United States Army, The Adjutant General.

Distribution:

Active Army: A.

To be distributed on a need-to-know basis to all units and headquarters down to and including companies and batteries and to units and headquarters of comparable size and responsibility.

NG and USAR: B.

To be distributed on a need-to-know basis to all units and headquarters down to and including separate battalions (administrative) and to units and headquarters of comparable size and responsibility.

TAGO 8691B-Jan. 440483°-58

W. S. SOYERNMENT PRINTING OFFICE, 1988

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INSTALLATION OR ACTIVITY	LOCATION	CLASSIFICATION	ASSIGNMENT	T/D	\TUS
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`	T T. 3 Sept.				}
5	Long Island, NY				
	ost office address 6 mi east of Montauk, Long				
	Island, NY on US Hwy No. 27				
Cp Hero		I subinstal	l First Army		INACTIVE

HISTORICAL DATA

Seacost Defense Reservation in the vicinity of Montauk Point, Long Island, NY is DESIGNATED Cp Hero in honor of the late MAJOR GENERAL ANDREW HERO, JR. US Army - AG 680.9 (18 Apr 42)MR-M-SP, 2 May 1942. Also see - GO 58, WD, 29 Oct 1942. Cp Hero, Montauk, Long Island, NY previously classified as a Special installation, ASSIGNED to Eastern Defense Command is RECLASSIFIED as a Class I installation, ASSIGNED to First Army effective 12 Jun 1946 - WD Cir 169, 11 Jun 1946. RESCINDED; Cp Hero, Montauk, Long Island, NY (Sub-post of Ft H. G. Wright, NY) is RECLASSIFIED as a Class I sub-installation ASSIGNED to First Army - WD Cir 292, 25 Sep 1946.

Cp Hero (HD of L.I. Sound, NY) is placed in an INACTIVE STATUS effective 31 Jul 1947 - Cir 23, DA, 16 Oct 1947.

Ft H. G. Wright, NY a Class I installation, ASSIGNED to First Army will be placed in an INACTIVE STATUS; Cp Hero, NY a Class I subinstallation of Ft H.G. Wright, NY, will remain in an INACTIVE STATUS effective 31 May 1949 - Cir 72, DA, 10 May 1949.

Harbor Defense of Long Island Sound, NY will be DISCONTINUED; Cp Hero, NY will remain as a subinstallation of Ft H.G.

Wright, NY, ASSIGNED to First Army effective 31 May 1949 - 60 23, DA, 24 May 1949.

Cp Hero, Montank Point, Long Island, NY formerly Harbor Defenses of Long Island is excess to the needs of the Department of Defense, with the exception of that portion which the Department of the Air Force has expressed an interest in acquiring effective 31 Dec 1949 - AGAO-I 602 (27 Dec 49) CSGLD-H, 30 Dec 1949.

Op Hero, Montauk Point, Long Island, NY a subinstallation of Ft H. G. Wright is excess to the needs of the Department

of the Army effective 31 Dec 1949 - GO 1. DA, 3 Jan 1950.

Op Hero, NY is DESIGNATED a Class I subinstallation of Ft Totten, NY effective 24 Jan 1951 - GO 20, First Army, 13 Feb 1951. REVOKED - GO 66. First Army, 14 May 1951.

Op Hero, NY is ESTABLISHED as a Class I subinstallation of Ft Totten, NY effective 24 Jan 1951 - 60 20, DA, 18 Apr 1951 Op Hero, NY a flass I subinstallation of Ft Totten, NY is placed in an INACTIVE STATUS effective 31 Dec 1957 - 60 1,

DA, 3 Jan 1958.

US Army Garrison Cp Hero, Montauk, Long Island, NY is REDESIGNATED US Army Garrison (Inactive), Cp Hero, Montauk,

Long Island, NY under TD 61-1262-5, 1957 effective 31 Dec 1957 - GO 9, First US Army, 28 Jan 1958.

US Army Garrison (Inactive) Co Hero, Montauk, Long Island, NY is DISCONTINUED, TD 61-1362-5 is WITHDRAWN effective 1 Jan 1961 - GO 35. First US Army, 13 Feb 1961.

US NAVAL INSTITUTE PROCEEDINGS JANUARY, 1968

American Harbor Defenses: The Final Era

The first half of the 20th century saw the maturation, zenith, and subsequent demise of America's network of harbor defense fortifications, a system that had endured without interruption for nearly 150 years.

Here, a 12-inch gun near San Francisco is fired during a 1940 exercise, on the eve of the enactment of a final program that would replace existing installations with the most powerful and extensive such defenses in U. S. history.

by Commander D. P. Kirchner, U. S. Navy, and Captain E. R. Lewis, U. S. Army Reserve

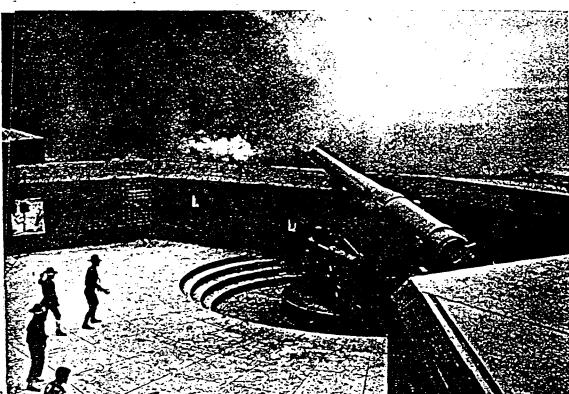




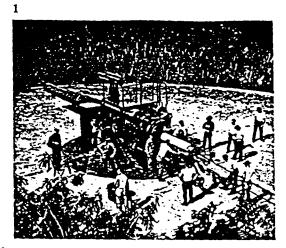
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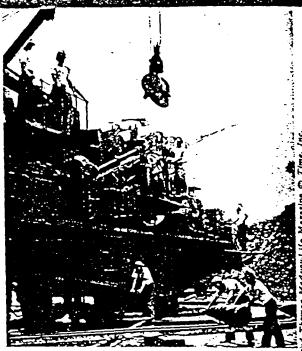


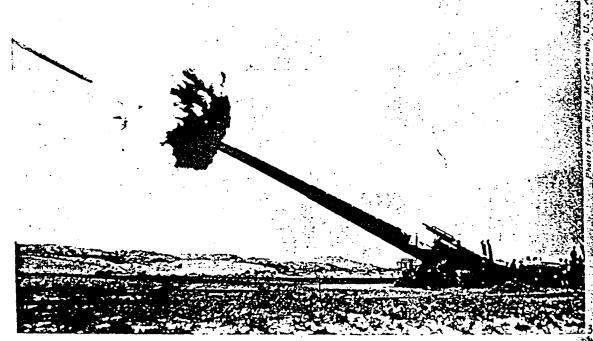




As late as the collapse of France in 1940, most of the nearly 700 fixed guns in the American harbor defense system were weapons that had been installed prior to 1910. Included were about 250 12-inch mortars, emplaced in groups to fire clusters of 700-pound projectiles in high arcs onto the decks of enemy ships. Photo 1 shows such a battery at Fort Monroe, Virginia, during firing practice in 1918. In Photo 2, mortar rounds straddle a towed target sled. The stubby pieces had a maximum range of about 15,000 yards. Other major-caliber weapons included 8-, 10-, 12-, and 14-inch flat-trajectory guns, most of which were mounted on disappearing carriages that used recoil energy to lower the tubes behind earth and concrete parapets for servicing and loading. In Photos 3 and 4, a 600-pound shell is loaded and fired from a 10-inch disappearing gun at Fort Monroe. In the days before high-angle shipboard gunnery, such armament was almost invulnerable to naval weapons except for a few moments just prior to firing. Range of the 8-, 10-, and 12-inch guns was about eight to nine miles; the 14-inch guns could reach 13 miles.

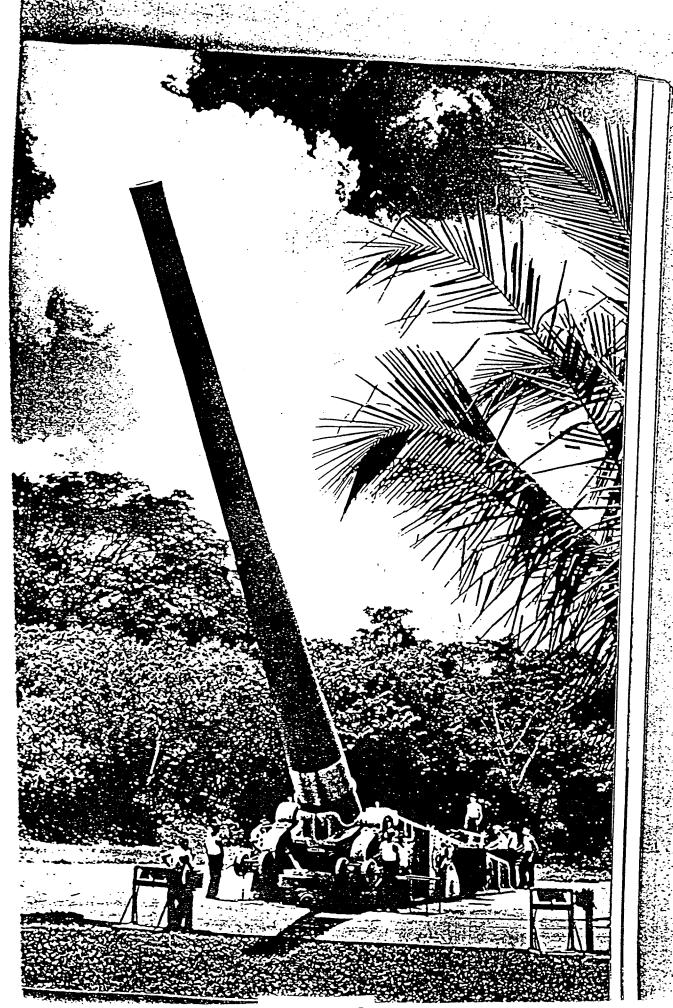




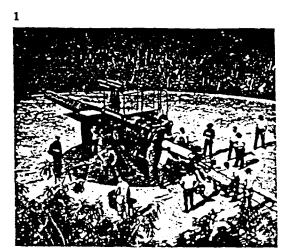


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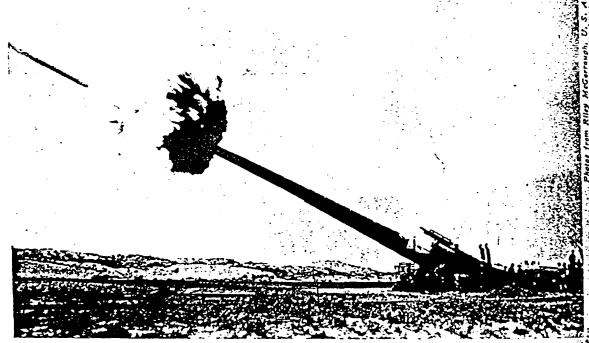
During and immediately following World War I, artillery coverage of the most viral harbor defense areas was extended through the addition of a small number of 12-inch guns on new high-angle carriages that increased their range to more than 15 miles. Although effective, these guns were highly vulnerable to air attack as may be seen in Photo 1, showing an installation on Corregidor. A few batteries of a new 16-inch weapon, the Army Model 1919, provided the harbor defenses with the most powerful service cannon ever produced in the United States. Seen in Photo 2, this gun had a range of nearly 50,000 yards with a 2,340-pound projectile. The cancellation of a dozen capital ships under the Washington Naval Treaty of 1922, however, rendered surplus a large number of new Mark II Navy guns, and these were made available for use in all subsequent 16-inch installations. One of four such guns mounted at the Pacific entrance to the Panama Canal is seen in Photo 3. Also added were several models of railway artillery, the largest being a 14-inch gun having a range of over 42,000 yards with a 1,560-pound projectile. One of two used in the Canal Zone is seen in Photo 4.



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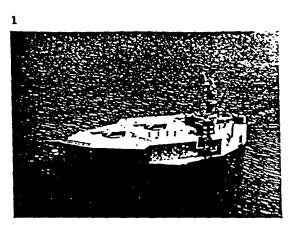


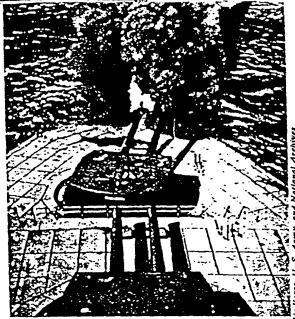


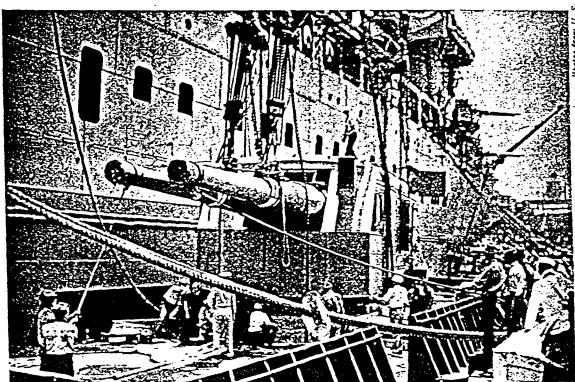


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During and immediately following World War I, artillery coverage of the most vital harbor defense areas was extended through the addition of a small number of 12-inch guns on new high-angle carriages that increased their range to more than 15 miles. Although effective, these guns were highly vulnerable to air attack as may be seen in Photo 1, showing an installation on Corregidor. A few batteries of a new 16-inch weapon, the Army Model 1919, provided the harbor defenses with the most powerful service cannon ever produced in the United States. Seen in Photo 2, this gun had a range of nearly 50,000 yards with a 2,340-pound projectile. The cancellation of a dozen capital ships under the Washington Naval Treaty of 1922, however, rendered surplus a large number of new Mark II Navy guns, and these were made available for use in all subsequent 16-inch installations. One of four such guns mounted at the Pacific entrance to the Panama Canal is seen in Photo 3. Also added were several models of railway artillers, the largest being a 14-inch gun having a range of over 42,000 yards with a 1,560-pound projectile. One of two used in the Canal Zone is seen in Photo 4.

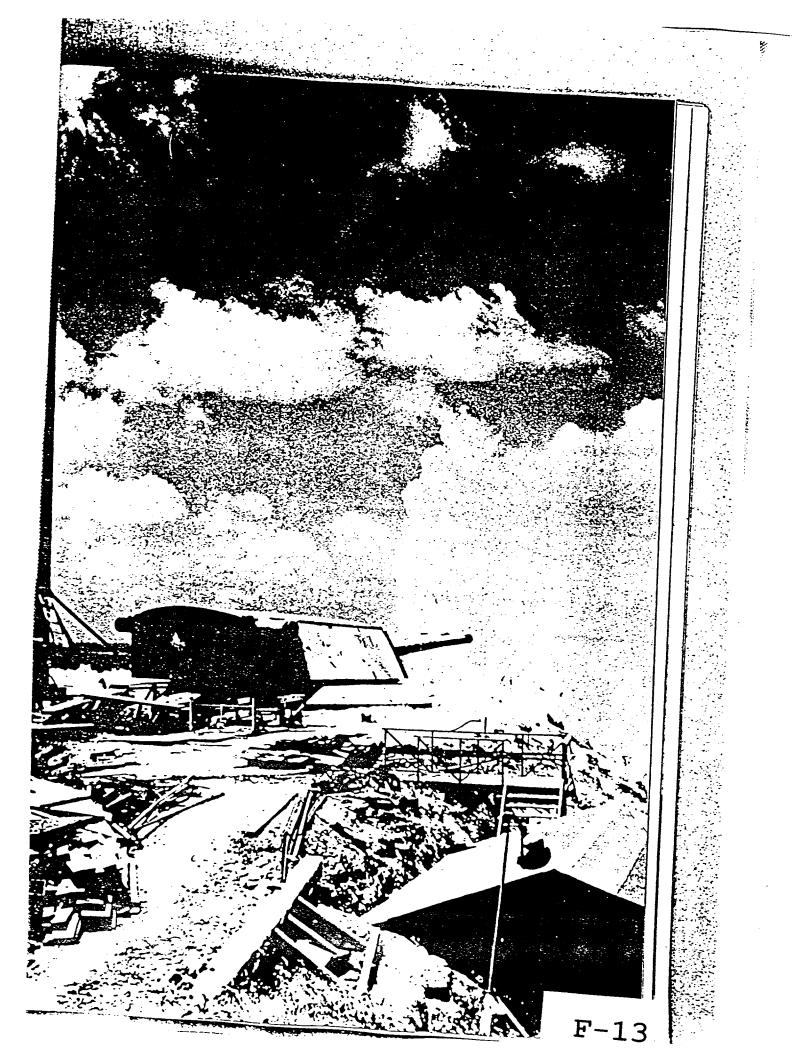


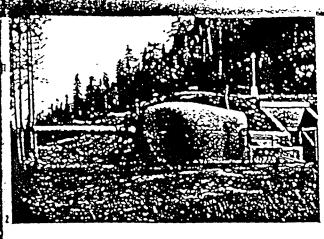


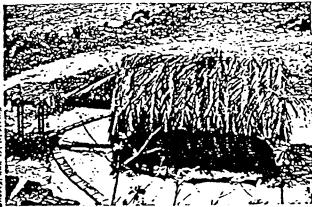


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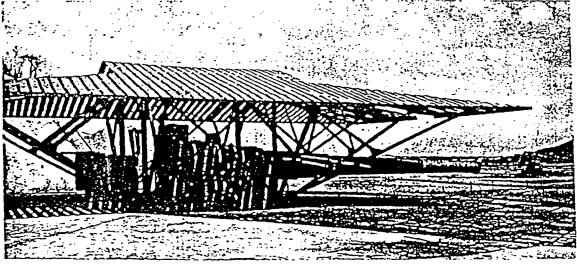
Prior to World War II, the United States had only once constructed a turreted harbor, defense installation. Fort Drum, seen in Photos 1 and 2, was completed at the mouth of Manila Bay shortly after World War I and became known as the "concrete battleship" because of its distinctive shape and main armament of Army-designed 14-inch guns and turrets. The fort was the only unit of the Manila Bay defenses to remain intact throughout the long Japanese siege that ended with Corregidor's surrender in May 1942. In the early part of World War II, because of their immediate availability, several Navy gun turrets were adapted for harbor defense on Oahu, Hawaii. Eight 8-inch, twin-gun turrets from the carriers USS Lexington (CV-2) and USS Saratoga (CV-3) were installed at crucial points on the island, as were two 14-inch, triple-gun turrets salvaged from the battleship USS Arizona (BB-39). In Photo 3, one of the Lexington's turrets is removed at Pearl Harbor for transfer to the Army in March 1942. In Photo 4, Battery Pennsylvania, one of the turrets from the Arizona, is proof-fired in August 1945.



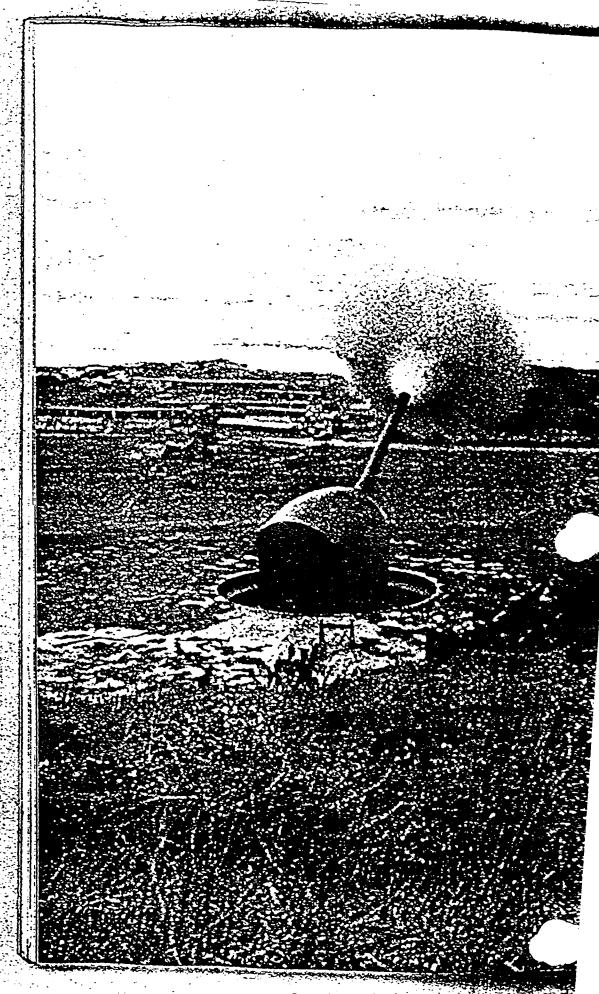




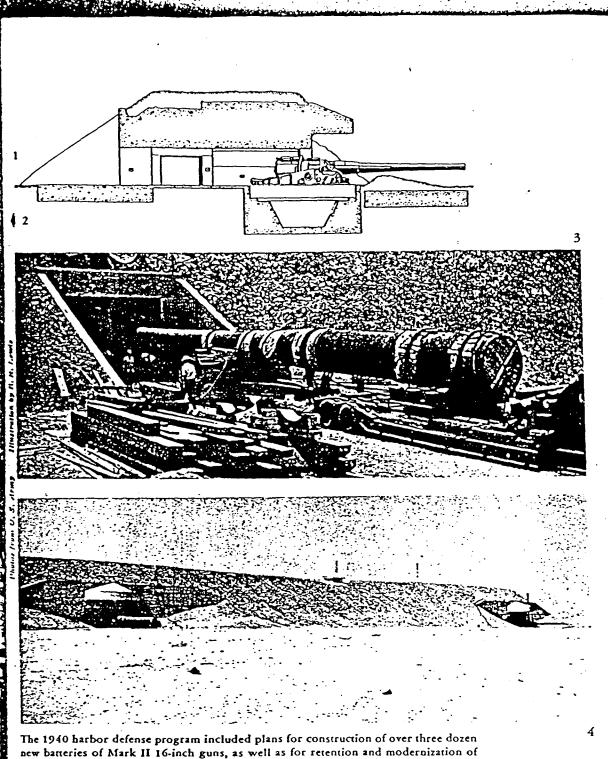




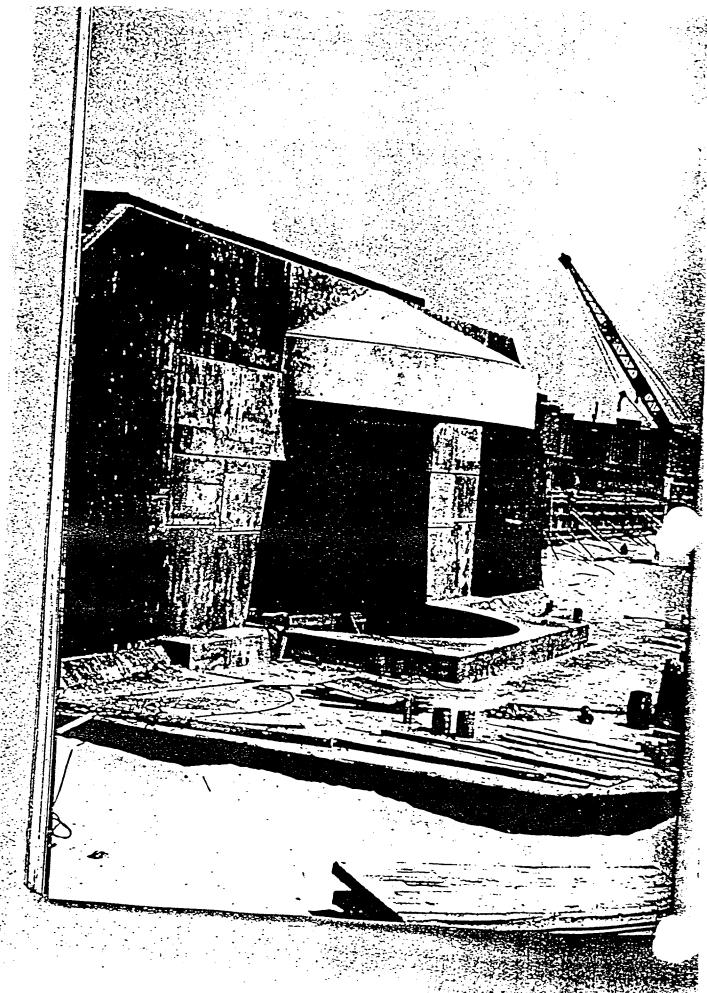
The vast harbor defense program initiated in 1940 provided for replacement of practically all existing pre-World War I heavy armament by far more powerful weapons having overhead protection. There were 125 new batteries to be constructed, each with a pair of 6-inch or 16-inch guns, most of them in the continental United States. Magazine, service, and power rooms were located between the guns and covered with several feet of reinforced concrete and earth. Protection for the 6-inch guns, which had a maximum range of 27,000 yards, consisted of heavy cast steel shields. In Photo 1, a newly emplaced 6-inch gun near San Francisco is proof-fired. Photo 2 shows a gun and magazine entrance in the Pacific Northwest. An identical gun, near San Juan, Puerto Rico, is seen under Caribbean camouflage in Photo 3. A small number of new two-gun, 8-inch and 12-inch installations were also included in the program. In Photo 4, an 8-inch gun, once part of the armament of the USS Minnesola (BB-22), overlooks Kaneohe Bay, Oahu, from under Hawaiian-type camouflage. Many old 5-, 6-, and 7-inch Navy deck guns, such as that in Photo 5, were also supplied for emergency use early in the war.



F-13



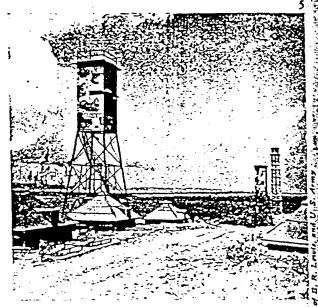
The 1940 harbor defense program included plans for construction of over three dozen new batteries of Mark II 16-inch guns, as well as for retention and modernization of the few 12-inch and 16-inch installations of the post-World War I period. In all of these major-caliber works the massive cover over the magazines extended out over the armament itself. Each gun was thus situated within its own casemate, a chamber covered by 20 to 25 feet of concrete, steel, and earth. A cross section of a representative 16-inch installation, less the structural and reinforcing steel, is seen in Illustration 1. Photo 2 shows a partially completed casemate at Fort Story, Virginia, with its projecting canopy designed to protect gun and carriage from a direct hit. A 143-ton, 16-inch tube, seen in Photo 3, is readied for installation through the rear of the casemate. Photo 4 shows a completed battery with the two guns separated by 500 feet of magazines, passageways, and earth cover. The 45,000-yard, 16-inch batteries could outrange nearly any ship in the world and greatly reduced the number of guns required for coverage of a given area.

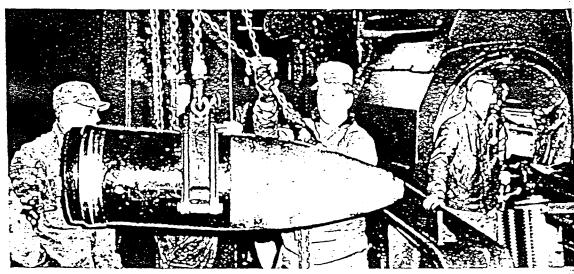


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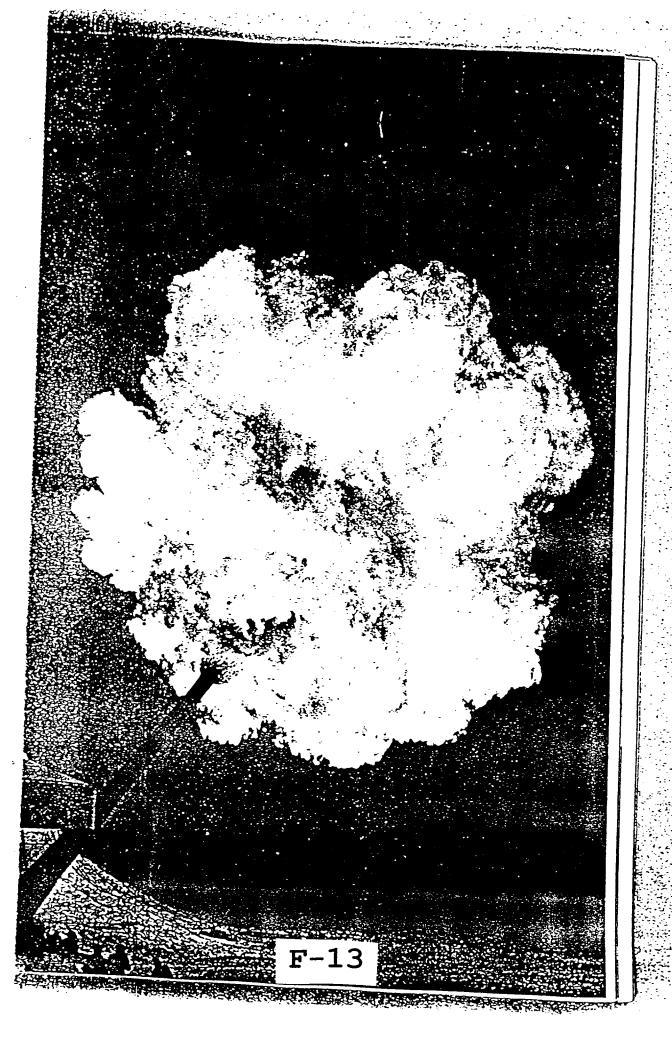


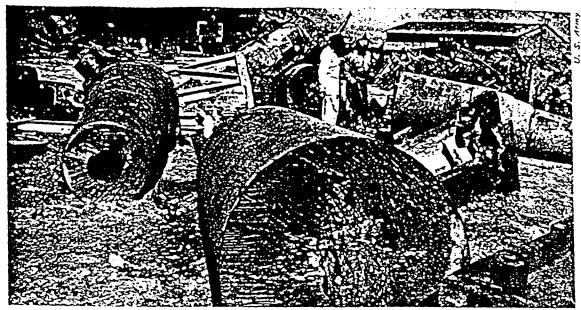




Every long-range-gun installation was served by a network of up to a dozen fire-control observation stations situated along the coast for miles in either direction from the battery. Each station generally contained two optical instruments, one for obtaining target angles for transmittal to a central battery plotting room, and one for observing the fall of shot and obtaining correction data. Typical observation and plotting facilities are shown in Photos 1 and 2. In Photo 3, a 16-inch projectile is transported to its gun via ceiling trolley, and in Photo 4 a 16-inch gun at Fort Story, Virginia, is fired during night practice. As the war progressed, an early form of fire-control radar was introduced, and by 1945 most batteries could be directed by either radar or optical means. Fire-control facilities visible in Photo 5 include two observing stations and (disguised as a ware tower) a seacoast artillery radar. Within three years after the war's end, however, both

systems were obsolete, as was the harbor defense artillery itself. The era of missiles sophisticated fire direction had begun.





Into limbo: their usefulness ended, harbor defense guns are cut up for scrap at Fort De Russy, Oahu, in 1946.

THE WORLD WAR II HARBOR DEFENSE ARMAMENT PROGRAM

The following is a brief summary of World War II American harbor defense installations, as projected in the major program initiated in 1940:

Characteristics of Program Armament	16-incb	12-inch	8-inch	6-inch
Range in yards Projectile weight in pounds	45,000	30,000	35,000	27,000
	2,240	975	240	105
Number of Batteries in Program				
New batteries projected Retained batteries to be modernized (i.e., given overhead cover) Totals	38	3	11	87
	6	11	0	0
	44	14	11	87
Breakdown of Batteries by General Location				
Continental United States ² Pacific Bases ³ Atlantic Bases ⁴	35	8	2	51
	. 4	1	7	14
	. 5	5	2	22

¹ The 12-inch and 6-inch guns and all four types of carriages were of Army design and manufacture. The 16-inch guns were almost entirely from stock made available on cancellation of battleships Nos. 49-54 and battlecruisers Nos. 1-6. The 8-inch guns were from stock removed from the battleships USS New Jersey (BB-16), USS Kansas (BB-21), USS Minnesota (BB-22), and USS New Hampshire (BB-25), in 1924.

Because of a series of cutbacks in harbor defense construction as the course of World War II gradually reduced the threat to American shores, the number of batteries actually completed was considerably smaller than that projected for the program. Final completion of program armament ranged from a low of about 50 per cent of the 16-inch batteries to a high of about 90 per cent of the 12-inch batteries. Also, wartime installation of readily available substitute armament, including turrets from the USS Lexington (CV-2), USS Saraloga (CV-3) and USS Arizona (BB-39) resulted in figures other than those originally projected.

² Eighteen locations: Portland, Maine; Portsmouth, New Hampshire; Boston; New Bedford; Narragansett Bay; Long Island Sound; New York City; Delaware River; Chesapeake Bay; Charleston; Key West; Pensacola; Galveston; San Diego; Los Angeles; San Francisco; Columbia River; and Puget Sound.

² Nine locations: Balboa, Canal Zone; Dutch Harbor, Kodiak, Sitka, and Seward, Alaska; Pearl Harbor, Honolulu, Kaneohe Bay, and the North Coast of Oahu, Hawaii.

⁴ Seven locations: Cristobal, Canal Zone; San Juan and Roosevelt Roads, Puerto Rico; Trinidad; Jamaica; Bermuda; and Argentia, Newfoundland.

17 D Street, S.E. Washington, D.C. 20003 22 November 1968

JŪ.

Patrick F. Bowe 1405 S. College Fort Collins, Colorado 80521

Dear Mr. Bowet

This is in reply to your October 29 letter to the Department of the Ammy, concerning coastal defenses in the vicinity of Montauk Point, New York;

Camp Hero was a World War II facility, part of the Harbor Defenses of Long Island Sound. It comprised about 480 acres acquired for the most part in 1942, and it was named in honor of Major General Andrew Hero, a Chief of Coast Artillery during the 1920's.

Three batteries of gums were installed on the reservation between 1942 and 1944. Their locations are shown in the attached plan. The easternmost battery, known as Battery 216, consisted of a pair of 6-inch gums with a range of about 27,000 yards. The two 16-inch gum batteries, of two gums each, were named, respectively, Battery Dunn and Battery 112. Their gums had a range of about 45,000 yards and were emplaced within casemates, more commonly known today as "bunkers." Each battery's casemates were five hundred feet apart, and between the casemates stretched a series of concrete and earth covered galleries containing power-generating rooms, ammunition magazines, latrines, air-conditioning equipment, etc.

All sescoast batteries were stripped of their armament during the period 1947 - 1949, but the concrete emplacements may still be seen near every coastal harbor of consequence in the United States. Casemates of 16-inch batteries essentially identical with those of Batteries Dunn and 112 can be found in several locations between Portland, Maine, and the entrance to Chesapeake Bay, and between San Diego and Puget Sound. Remnants of the 6-inch batteries, which were much more common, may be seen as well along the southern Atlantic and Culf Coasts.

Both types of hatteries, along with the guns used, are illustrated in the pictorial section of the January, 1968, issue of the U.S. Naval Institute Proceedings, available in most libraries. Also shown is a cross section of a 16-inch casemate.

The manning details for such batteries varied somewhat, but ordinarily consisted of about 160 men per 16-inch battery and about 100 per 6-inch.

Very truly yours,

B. R. Lewis

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F-14

X Camp Hiro

Seacoast Defense Reservation in the vicinity of Montauk, L. I., New York is designated Camp Hero, in honor of Maj. Gen. Andrew, Jr., USA., by Ltr d. May 2, 1942; GO 58, WD, October 29, 1942. Hero,

Effective 31 July 1947, Camp Hero (Harbor Defenses of Long Island, New York) is placed in an inactive status, in accordance with provisions of Circular #2, WD, 1947, by Circular #23, DA, October 16, 1947.

Effective 31 May 1949, Fort H. G. Wright, a Class I installation under the jurisdiction of the Commanding General, First Army, will be placed in an inactive status. Camp Hero, N. Y., a Class I sub-installation will remain in an inactive status. Circular #72, DA, 10 May 1949.

Effective 31 December 1949, Camp Hero, Long Island, New York (Harbor Defenses of Long Island Sound, New York) is excess to the needs of the Department of Defense, with the exception of that portion which the Department of the Air Force has expressed an interest in acquiring. Ltr. 30 Dec 1949, AG-AO-I-602 (27 Dec 49) CS-GLD-M, dated 30 Dec 49.

Effective 31 December 1949, Camp Hero, a sub-installation of Fort H. G. Wright, is excess to the needs of the Department of the Army. GO #1, DA, 3 Jan 1950.

Effective 24 January 1951, Camp Hero, New York, is established as a Class I sub-installation of Fort Totten, New York. GO #20, DA, 18 Apr 1951.

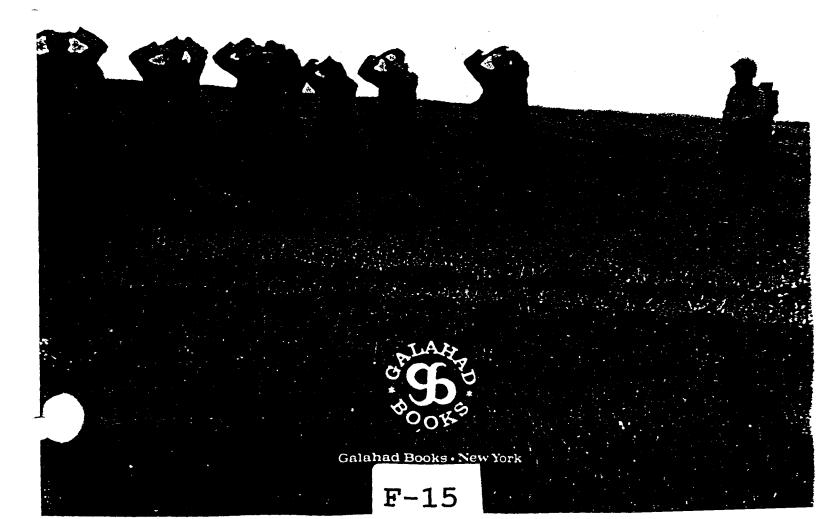
Source:
Organization and Directory Section
Operations Branch
Office of The Adjutant General

26 December 1957

Shelby L. Stanton

Captain, U.S. Army, Retired Author of <u>Vietnam Order of Battle</u>

Foreword by Russell Weigley





7th Coast Artillery Regiment (Harbor Defense) (Type B)

Stationed at Ft Hancock N.J. under Harbor Defenses of Sandy Hook; moved to Ft Tilden N.: 23 Sep 42 and returned to Ft Hancock 20 May 43; there regimental assets absorbed into New York Harbor Defenses and HHB assigned to XXII Corps 23 Feb 44; HHB transferred to Ft Leonard Wood Mo 15 Mar 44 where inactivated 7 Apr 44.



8th Coast Artillery Regiment (Harbor Defense) (Type B)

Stationed at Ft Preble Maine under Harbor Defenses of Portland; 1st and 2nd Bns not completely formed until Feb 41 and Battery G (Searchlight) activated Jun 41; regimental assets absorbed into Portland Harbor Defenses and HHB assigned to IX Corps 25 Feb 44; HHB transferred to Cp Shelby Miss 27 Mar 44 where inactivated 18 Apr 44.



9th Coast Artillery Regiment (Harbor Defense) (Type A)

Stationed at Ft Banks Mass under Harbor Defenses of Boston; 1st and 2nd Bns activated 10 Feb 41 and 3rd Bn activated 1 Jun 41; regimental assets absorbed into Boston Harbor Defenses and HHB assigned to XXIII Corps 23 Feb 44; HHB transferred to Cp Hood Tex 17 Mar 44 where inactivated 12 Apr 44.



10th Coast Artillery Regiment (Harbor Defense) (Type B)

1 Jan 40 activated at Ft Adams R.I. under Harbor Defenses of Narragansett Bay; 1st and 2nd Bns activated 10 Apr 41; regimental assets absorbed into Narragansett Bay Harbor Defenses and HHB assigned to XXII Corps 25 Feb 44; HHB transferred to Cp Forrest Tenn 14 Mar 44 where inactivated 10 Apr 44.



11th Coast Artillery Regiment (Harbor Defense) (Type B)

Stationed at Ft H.G. Wright N.Y. under Harbor Defenses of Long Island Sound; moved to Winthrop N.Y. 3 Aug 40 and returned to Ft H.G. Wright 31 Aug 40; there regimental assets absorbed into Long Island Sound Harbor Defenses and HHB assigned to XXII Corps 23 Feb 44; HHB transferred to Ft Leonard Wood MO 14 Mar 44 where inactivated 7 Apr 44.



13th Coast Artillery Regiment (Harbor Defense) (Type A)

Stationed at Ft Barrancas Fla under Harbor Defenses of Key West; 2nd Bn activated 1 Aug 40 at Ft Moultrie S.C. and joined regiment at Ft Barrancas 24 Apr 42 from duty with Harbor Defenses of Charleston; 3rd Bn inactivated 17 Jan 42; relocated to Ft Pickens Fla where HHB redesignated Harbor Defense of Pensacola 31 Aug 44; 1st and 2nd Bns redesignated 181st and 13th CA Battalions, respectively. The 3rd Bn had departed Charleston P/E 27 Jan 42 and became the 276th CA Bn at Bora Bora 17 Dec 42.



240th Coast Artillery Regiment (Harbor Defense) (Type A) Maine National Guard

16 Sep 40 inducted into federal service at Portland Maine and moved to Ft McKinley $_{\rm Maine}$ 23 Sep 40 under the Harbor Defenses of Portland; transferred to Ft Williams Maine 2 Jan $_{\rm 42}$ and to Ft Levett Maine 5 Oct 44; there regiment (less HHB 3rd Bn and Btry I which had been inactivated 18 Apr 44) redesignated as 185th CA and 186th CA Battalions.



241st Coast Artillery Regiment (Harbor Defense) (Type C)

Mass. National Guard

16 Sep 40 inducted into federal service at Boston Mass and moved to Ft Andrews Mass 23 Sep 40 under the Harbor Defenses of Boston; transferred to Ft Dawes Mass 12 Dec 41 and Ft Heath Mass in Nov 43; arrived at Ft Banks Mass in Mar 44 where regimental HHB, 3rd Bn HHB and Btry L inactivated 7 Oct 44; remainder of regiment redesignated 187th CA and 241st CA Battalions, less 4th Bn which had been designated 3rd Bn, 8th CA Regt.



242nd Coast Artillery Regiment (Harbor Defense) (Type A) Connecticut National Guard

16 Sep 40 inducted into federal service at Bridgeport Conn and moved to Ft H.G. Wright N.Y. 23 Sep 40 and to Ft Terry N.Y. 7 Nov 40 under the Harbor Defenses of Long Island Sound; 3rd Bn redesignated 2nd Bn, 23rd CA Regt 13 Sep 43; remainder of regiment redesignated there as 190th CA and 242nd CA Battalions 7 Oct 44, less 2nd Bn HHB which was inactivated.



243rd Coast Artillery Regiment (Harbor Defense) (Type A)

R.I. National Guard

16 Sep 40 inducted into federal service at Providence R.I. and moved to Ft Adams R.I. 22 Sep 40 under the Harbor Defenses of Narragansett Bay; relocated to Ft Getty R.I. 14 Mar 41 where regiment redesignated 189th CA and 243rd CA Battalions 7 Oct 44, less HHB of 2nd and 3rd Bns and Btry D which were inactivated.



244th Coast Artillery Regiment (155mm Gun) (Mobile)

New York National Guard

16 Sep 40 inducted into federal service at New York N.Y. and moved to Cp Pendleton Va 23 Sep 40; served in Ft Jackson-Ft Bragg area from 29 Sep 41 until returned to Cp Pendleton 3 Dec 41; HHB and 1st Bn inactivated 17 May 44 and 2nd Bn redesignated 289th CA Battalion 5 Jun 44; 3rd Bn redesignated 259th CA Battalion 20 Jan 43 on New Caledonia.

Campaigns: Pacific Theater without inscription



245th Coast Artillery Regiment (Harbor Defense) (Type C) New York National Guard

16 Sep 40 inducted into federal service at Brooklyn N.Y. and moved to Ft Hancock N.Y. 24 Sep 40 under the Harbor Defenses of Sandy Hook; transferred to Bendix N.J. 31 Oct 41 and returned to Ft Hancock N.J. 6 Nov 41; transferred to Ft Wadsworth N.Y. 20 May 43 and returned again to Ft Hancock N.J. 1 Mar 44; HHB of 1st-4th Bns and Btrys L and M inactivated there 7 Oct 44 and remainder of regiment redesignated as 192nd CA and 245th CA Battalions.

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Harbor Defenses of Long Island Sound

Located at Long Island Sound N.Y. with HHB at Ft H.G. Wright N.Y. and initially guarded by the 11th Coast Artillery, reinforced in Sep 40 by the 242nd Coast Artillery; composed of Ft Michie (Great Gull Island N.Y.), Ft Terry (Plum Island N.Y.), Ft H.G. Wright (Fishers Island N.Y.), and other installations including Cp Hero (Montauk Point N.Y.).

Harbor Defenses of Los Angeles

Located at Los Angeles Calif with HHB at Ft MacArthur Calif and initially guarded by the 3rd Coast Artillery; composed of Ft MacArthur (San Pedro Calif), Bolsa Chica Seacoast Battery (Los Angeles Calif), Oxnard Seacoast Battery (Oxnard Calif), Manhattan Beach Subpost (Manhattan Beach Calif), Point Vicente Seacoast Defenses (Los Angeles Calif), and White Point Seacoast Battery (Los Angeles Calif).

Harbor Defenses of Manila and Subic Bays

Located on Luzon Philippine Islands with HHB at Ft Mills P.I. and initially guarded by the 59th and 60th Coast Artillery as well as the 91st and 92nd Coast Artillery (Philippine Scouts); composed of Ft Drum (El Fraile Island), Ft Frank (Carabao Island), Ft Hughes (Caballo Island), Ft Mills (Corregidor Island), and Ft Wint (Grande Island in Subic Bay); evacuated Ft Wint on 24 Dec 41 and other garrisons surrendered to Japanese forces on 6 May 42.

Campaigns: Philippine Islands



Harbor Defenses of Narragansett Bay

Located at the entrance of Rhode Island Sound with HHB at Ft Adams R.I. and initially guarded by the 10th Coast Artillery, reinforced in Sep 40 by the 243rd Coast Artillery; composed of Ft Adams (Newport R.I.), Ft Burnside (Jamestown R.I.), Ft Church (Little Compton R.I.), Ft Getty (Jamestown R.I.), Ft Greene (Narragansett R.I.), Ft Greble (Jamestown R.I.), Ft Kearney (Saunderstown R.I.), Ft Varnum (Narragansett R.I.), Ft Wetherill (Jamestown R.I.), Brenton Point Tactical Position (Newport R.I.), Cp Burlingame (Charlestown R.I.), and miscellaneous tactical positions.

Harbor Defenses of New Bedford

Located at New Bedford Mass and Buzzards Bay with HHB at Ft Rodman Mass and guarded by the 23rd Coast Artillery; composed of Ft Rodman (New Bedford Mass), Barney's Joy Outpost (South Dartmouth Mass), Butler's Point Gun Position (New Bedford Mass), and various minor installations.



Harbor Defenses of New York (Sandy Hook)

Located at New York City and vicinity and initially known as the Harbor Defenses of Sandy Hook with HHB at Ft Hancock N.J. guarded by the 7th and 52nd Coast Artillery, reinforced in Sep 40 by the 245th Coast Artillery; composed of Ft Hancock (Sandy Hook N.J.), Ft Jay (Governors Island N.Y.), Ft Schuyler (New York N.Y.), Ft Tilden (Brooklyn N.Y.), Ft Wadsworth (Richmond N.Y.), and other coastal defense sites.

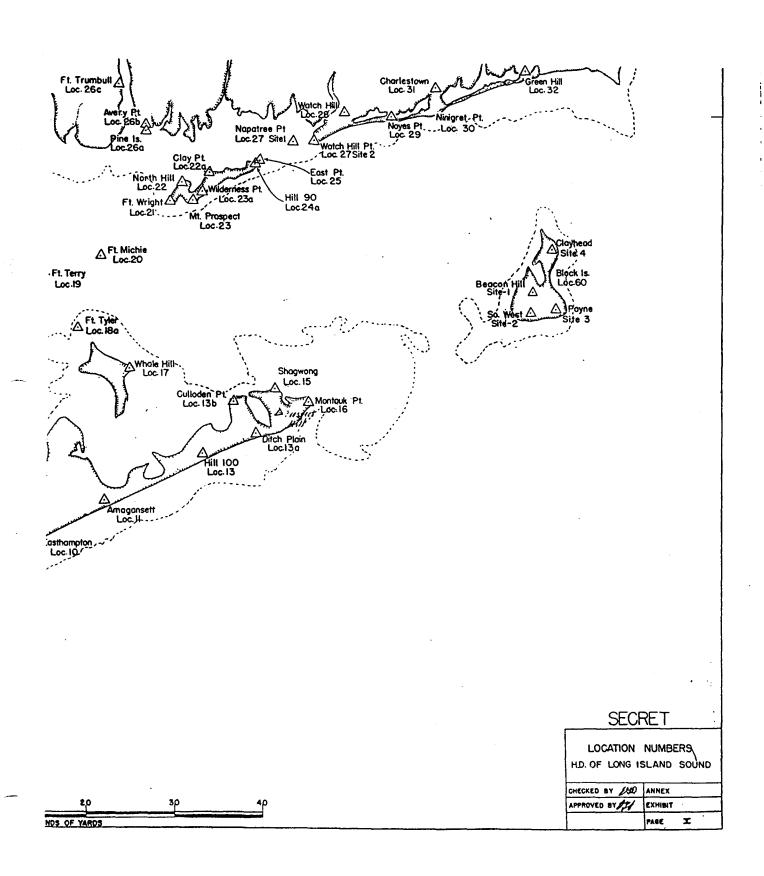


Harbor Defenses of Pensacola

Located at Pensacola Fla with HHB at Ft Barrancas Fla and initially guarded by elements of the 13th Coast Artillery; composed of Ft Barrancas, Mt McRee, and Ft Pickens (all at Pensacola Fla).

Harbor Defenses of Portland

Located at Portland Maine guarding Casco Bay with HHB at Ft Williams Maine and initially guarded by the 8th Coast Artillery, reinforced in Sep 40 by the 240th Coast Artillery; composed of Ft Levett (Cushing Island Maine), Ft Lyons (Cow Island Maine), Ft McKinley (Great Diamond Island Maine), Ft Preble (South Portland Maine), Ft Williams (Cape Elizabeth Maine), and battery sites on Jewell's Island, Long Island, and Peaks Island.



LIST OF RATT/FIES UPON COMPLETION OF MODERNIZATION PROGRAM

	Battery									Fire
ac.:Loc.	: Name or Constru	ic-: Cal.	:Gun	Tres	ent:R	ecom-	: 1	Left	: 1	Right
No.: No.	: tion Number	:Guns	: No	<u>: </u>	: m	ended	:]	Limit	: 1	Limit
1 16	Const. # 112	2-16 :	" 1 . 2	35	0	35 0	•	277 ⁰ 3	01	62°301
2 16	Const. # 113	2-16		30		3 06		233 ⁰ 3	i0'	18 ⁰ 30 •
3 : 16	: Const. # 216	: 2-6"	: 1	: 24		248	:	168	:	328 N
4 19	Dalliba :	2-3" :		32	9 :	329 m	:	259 **	:	39 n
5 19	Const. # 217	2-6"	1 2	26	3	263		183		343 n
6 : 20	: Maitland	: 2-6	: 1	: 34		340 "	:	270 #	:	50 #
7 20	Benjamin	2-6"			5°06 ¹	1950		125°C		265 ⁰ 06
8 21	Const. # 215	: 2-6"	1 2	32	4	350 tt	•	270 #	•	7 0
9 ; 21	. Hoppock	: 2-3"			0:	340 n	:	270 *	:	50
_	Const. # 111	2-16	* 1	. 52	:5 ' :	325	:	25203	30 '	37 ⁰ 30
	Const. # 214	2-6"			2	330		250	•	50 #
12 : 28	: Const. # 114 E	2-16	": 1 2	:	8°50;	8 ⁰	50!	296 ⁰ 2	90	81°20
13 * 21	Hoffman	2-3* 2-3*	1 1	. 17	7 ⁰ 301	1170	301	47°;	301° 30∤	207 ⁰ 3 187 ⁰ 3
14 + 22	Eldridge	2-3	' ī	•	•	180	•	110	•	250
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:	THE WAS A STATE OF THE STATE OF	en e	2 ; ,	i Himi	i Merce Copyria	r, c.	:	igen Serve	; ;	Teny
:	THE WAS A STATE OF THE STATE OF	ne i sensiste herri sensiste	2 : p	i Hom		r, c.		des des	; ;	G Feng Fine F 20-112
:	The war	ne i sensiste herri sensiste	z żo	i Hom	inder of the second sec	P3,		inger Serve	; ;	
:	The way	raphi 2,	z ; ,p 	i Hom i	; 56	Parting.		Aces Aces Aces Aces Aces Aces Aces Aces		Francis Francis Gregori
:	It will be a see parage	raphi 2,	z ; ,p 	i Hom i	; 56	Parting.		Aces Aces Aces Aces Aces Aces Aces Aces		Francis Francis Gregori
:	The way	raph 2,	z ; , , Anno:	Hone		rs in	; ; ; ;	den den		Francis Francis Surge
:	The way	raph 2;	2 ; p 	t North Alband		79		in december of the second seco		Francis Francis George
:	The way. The way of the second of the secon	raph 2	Anner	to the total of th		**************************************				Francis Francis Design
:	The way. The way of the second of the secon	raph 2;	Anner	to the total of th		**************************************				Francis Francis Design

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Exhibit 1-A. Page 1 of 1 page

ADDITIONAL BOMB-PROOF MAGAZINES

REQUIRED

Pri-:	: Description	: Place and		
rity: I		: Location	:Site:Storege for	
No.:	No.: Project	No	1 No. 1 Bettery	: Forms
3 :	Anum. Storage Magazine for 400 rds. 16" Anum.	Montauk Pt. Reservation Loc.# 16	: : 112-113	: 8-A-1 1-I-7
3 :	Amm. Storage Magazine for 200 rds. 16" Amm.	Wilderness Pt. F.I.	111	8 -A- 1
5 :	Amm. Storage Magazine : for 200 rds. 16" Amm.	Loc # 23A Watch Hill R.I. Loc # 28	: : 114	8-A-1 1-I-23
:	'Note 1. 400 rds. 6" A at Battery Pe	umh. for Batte	ry Benjamin store	
. :	: Note 2. Ammunition al	:	t :	:
:	by par. 8 a (OCCA., Subject	(5) and (6) Secti Plans for	C guns prescribed pret Letter, WD, storage of S.C. d Jan. 29, 1941.	:
:	: Note 3. 800 rds 3" an	: munition for 1	: : Battery Eldridge	: will be
:	completion of	f modernization	if approved to re	main upon
:		:	: :	:
:	•	:	: :	:
:	;	:	: :	:
:	:	:	: :	:
:	:	:	: :	:
:	:	:	: :	:
:	:	:	: :	:
:	:	:	: :	:

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Exhibit 9-A, Page 1 of 1 page

BATTERIES "TO BE CONSTRUCTED"

Sites for the tollowing insteries (those major equatmotion and those to be constructed) have been approved by the Secretary of War.

Pri-			Bettery	:Cesemate			:Estimated
		- :Loc.				:Acreag	
orrey			: Construction N			;	: of lend
3	1	16	112)	Casemete	:	: 470	\$ 270,000.00
3	: 2	: 16	: 115	:Casemate	:1-1-7	:	:
2	. 3	16 :	216	Shield:	1-1-7	:	:
2	. 5	19	217	Shield	1-1-10	None	•
2	: 8	: 21	: 215	:Shield	:1-1-12	: None	:
3	: 10	23A :	:	Casemate:	:	:	\$ 260,000.00
2	11	23A	214)	Shield	1-1-16		
. .	: 12	: 28	: 114	:Casemate	: 1-1-23	: 120	\$ 70,000.00
	:	:	:	:	:	TOTAL:	\$ 600,000.00 :
	NOTE	Land	procurement for	battery Constr.	#216 and	d #113 1	s included
	:	in p	rchase price of	land for battery	Constr	. #112.	:
	:	•	procurement for	<u>-</u>	-		
		in p	urchase price of	land for Battery	Constr	uction #	÷111.
	:	:	:	:	:	:	:
	. NOTE	Const	truction approved	i by the 5th Ind.	, MD, A	gọ, file	, io. Te eéo:
		(11-	9-40) K+WPD, date	ed Feb. 14, 1941.	•		
	:	:	:	:	:	:	:
	:	•	:	:	:	:	1
NOTE		llowing <u>a</u> . Fo (1 (2 b. Fo	e tabulation for information: r batteries "Und) Reference to c board action.) Status of the r batteries "To) Reference to c board action.	er Construction" orrespondence sh construction. be Constructed"- orrespondence sh	- owing ap	pprovel	of site

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TOTAL HOLDERICK AL

Exhibit 3-A, Pege 1 of 1 page.

FORTIFICATION CONSTRUCTION

Prisitem	is s				
or-sNo.	•				
ity:	1 Description of Project 1	Ordnances	Engineers	Land :	Total
2 t	LOCATION NO. 16 (Montauk F New Battery Constr. #112	<u>t.)</u>	: : : : : : : : : : : : : : : : : : :		: :
:	(2-16" guns, BC casemated) Gun carriages (2) Battery emplacement	870,000	1,500,000	270,000	2,640,000
5 ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	Now BatteryConstr. #115 (2-16" guns, BC casemated) Gun carriages (2) Battery Emplacement	870 ₉ 000	1,500,000	Loc. 16	2,370,000
2 :	Now Battery Constr. #216 (2-6" gums, BC shielded) Gum carriages (2) Battery Emplacement	150,000	200,000	Ioc. 16	850,000 .
5 : :	How construction: of two(2 temmunition storage magazin bombproof for 400 powder toharges for 16" guns, Each magazine 30' x 115' x 8'	fog t	: : : : 200,000	Loc. 16	200,000
3 : : : :	New construction: of two(2 semmunition storage magazing bambpreef for 400 projection 16" guns. Each magazing 60° x 50° x 10° 10° 10° 10° 10° 10° 10° 10° 10° 10°	ios None t	t t t t 1 150,000	Loc. 16	130,000
2: 1 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1: 1	LOCATION NO. 19 (Fort Term New Battery Constr. #217 (2-6" gums, shielded) Gum carriages (2) Battery Emplacement	1 150,000	200,000	t t t Mil. Res	5 550 £000
1 ;	Battery Dalliba (2-5" gun battery) Overhead protection by Shield	i i i 2,000	t t t None	t t t _Mil. Ros.	2,000
	LOCATION NO. 20 (Ft. Mie)		1	Ŧ .	r
1 t t. t.	*Battery Maitland (2-6" g *battery) Overhead protect *by shield	um tion	t t t None	: : : Mil. Ros	10,000

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Exhibit 10-A, Page 1 of 3 pages

	~	•••	4102				•••	D. CI _	To To	<u> </u>	
			BATTER	RY F	IRE CO	NTROL	REQUIREM	ENTS BY	BATTERY		
Name	of F	ati	ery			Const.	No. 112	Te	actical N	io	1
Туре	and	Ca)	liber_	Ca	somat	o, 16"		Elemer	nt of Gro	up	1
							Place				
Class	ific	ati	ion:						το	be Con	structed.
tion	:Sit : Fo	• :	No.:Co	ni:	bit	:Coord	li:Statior	: H.I.	: with	:Eleva	d:Acreage -:Required : #Exhibit
16	:	:	:	:	1-I-7	:	: Cottage	: A1-112	BC-2	1001	: None (1-1-7) ^a
10	: 14	:	81	sı:	1-1-1	:	Tower	DPF-58	:: AAIS#1	: 51	. 0.1 Acre (2-H-1)
11	: 14	:	B2	S2 _: :	1-1-2	:	Cottage:				_
13					1-1-3		Cottage	AI-112	B1/ <u>1261</u> /	12 1001	1.5Acres (2-H-3)
134	3.5				1-1-4					801	1.5 Acres (2-H-4)
16	. 2V.	:	# B 5	S5 :	1 - 1-7	:	1	•	B3/388/3	5° 60°	: None (1-I-7)a
16	1 1B	:	• 1	PR :	1-I-7	:	Bomb- proc		:	÷ 50•	: None (1-I-7)a
	:	:	:	:		:	1	: .	:	:	:
noti	E, a-	Оņ	site e	rbbir	bevo	for pro	ocurement,	. Soo)	Reference	# 2.	•
} - I	n th	is -	col.mn	ent	ter al	so ref	erences t	o land	procurem	ent tab	ulations.
			 e stat				ve, the F	MSE LII	E DATA C	or this	battery
	Ease			· -						:	
				-							

Ease Line From : Station: Station	-:	Azimuth	:	Longth:	Azimuth and were determi	•	
B1 S1 B2 S2 B2 S2 B3 S3 B3 S3 B4 S4 B4 S4 B5 S5	:	245° 245° 245° 235°	<u>:</u> _	8300 10750 6300 7100	Kap Kap Kap Kap	:	
:	:		:	:		:	
:	:		:	:		:	

SECRET

Exhibit 3B , Page 1 of 14 pages

Base Line From : Station: Station	Azimuth	1 1	Length:	Azimuth and longth were determined by	
B1 S1 B2 S2 B2 S2 B3 S3 B4 S4 B5 S5 B4 S4 B6 S6	245° 235° 268° 207°	1.	6500 7100 5300 8100	Map Map Map Map	1

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B6 86

Exhibit SB Page 2 of 14 pages

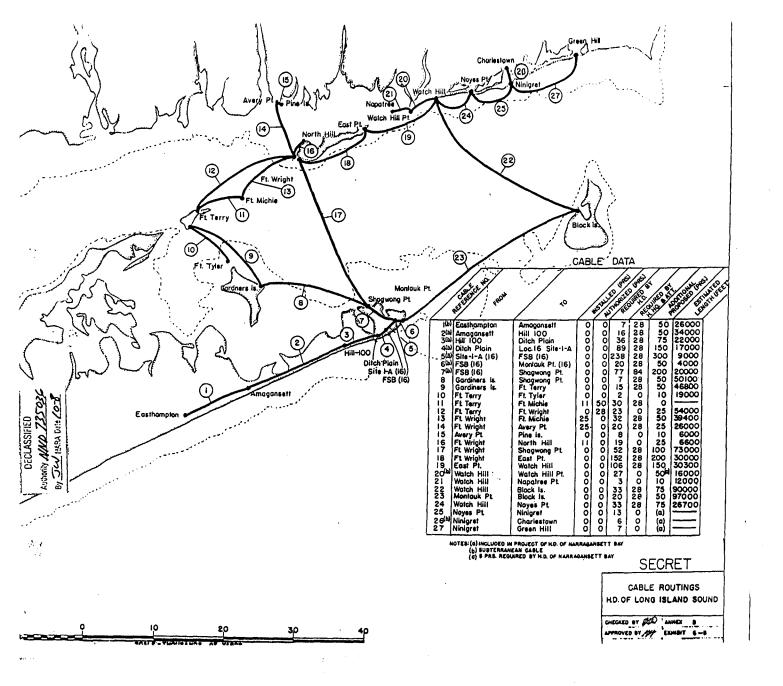
E-2

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Form 14. Annex B	H. D. of
BATTERY FIRE CONTROL	REQUIREMENTS BY BATTERY
Name of Battery Const.	No. 216 Tactical No. 3
Type and Caliber Shielded, 6"	Element of Group 1
Location 16	Place Montauk Pt., L.I., N.Y.
Classification:	To be Constructed.
tion : No.: No.:Cont: bit :Coord	ox:Type of:Approx:Combined:Ground:Acreage di:Station: H.I.: with :Eleva-:Required s: :& Inst:Stations: tion: #Exhibit
	Cottage AI-90: N-85 #1 78:1 None (1-I-7)
184 '.18 B1 81 1-1-4'	Cottage AI-921 B4/184/1 13 5 801 (2-H-4)
16 , 1A , , B2 82, 1-I-6 ,	Cottage A1-92 (B3/1285/12 800 1.00 Acres (2-H-5)
16 2C B3 83 1-I-7	Tower DFF-100*R5/1085/10 75** Hone
24A 10 B4 84 1-I-17	Manhole AI-88'
27 2 A B5 85 1-1-22	Cottage AI-40° B4/1184/11 20° Hone (2-H-10)5
60-2 2A B6 86 1-1-28	CottageDFF-107/B10/2810/2 10d* (1-1-28)b
1 1 1 1	1 1 1
NOTES: a-On site approved for pro b-On site to be acquired b g-Location on Coast Guard	y H.D. of Marragansett Bay. A FD / /// 2.7
# - In this column enter also ref	erences to land procurement tabulations.
With the stations listed about will be approximately as follows:	we, the BASE LINE DATA for this battery
	Longth: Azimuth and longth: : wore determined by:
B1 81 B3 85 235° B2 82 B3 83 293°	7100 Map 4200 Map
B2 S2 B3 S3 295° B4 S4 B5 S5 245° B6 S6 DPF Vertical base	6500 t Map
	1

Exhibit SB Pago 3 of 14 page

SECRET



Cost Estimate and Priority Guide

FIRE CONTROL - ENGINEERS

Pri-: Item ority: No.		aterials	Labor :	Land t	Total
Location No	. 13A (Ditch Plain)				
Site 1A	B ₂ ² S ₂ ² (Const. #113)				
	8303 (Const. #111)				
	32 S2 (Const. #114)				
	BDOP #3				
2	Land (1.5 Acres)		\$6	6,500	\$6,500
3	Cottage type, 3-sta. structure Contingency	\$5,500 1,100 6,600	\$5,500 1,100 6,600		13,200
2	Delco type light system	400	100		500
Site 18	B ₁ S ₁ (Const. #112)				
	B ₃ S ₃ (Const. #216)				
	69 ESCS 7111				
2	Lend (Included with Site 1A)			None	None
2	Cottage type, 3-sta. structure Contingency	5,500 1,100 6,600	5,500 1,100 6,600		13,200
	TOTAL	13,600	\$13,300	\$6,500	\$33,400
Location No.	TOTAL :	13,600	\$13,300	\$6,500	\$33,400
	B ₃ ² s ₃ ² (Const. #216)	33,600	\$13,300	\$6,500	\$33,400
	o. 15 (Shagwong)	313,600	\$13,300	\$6,500	\$33,400
Site 1A	B ₃ ² s ₃ ² (Const. #216)	13,600	\$13,300	\$6,500	\$33,400
Site 1A	B ₂ S ₃ (Const. #216) B ₁ S ₃ (Const. #111) B ₁₂ S ₁₂ (Const. #111)	313,600	\$13,300	\$6,500 2,500	\$33,400
Site 1A	B2 S3 (Const. #216) B1 S10 (Const. #111) B2 S2 (Const. #111) B1 S10 (Const. #111) B2 S2 (Const. #111) BDOP #1 Lend (1.0 Acre) Cottage type, 3-sta. structure	5,500	5,500		
Site 1A	B2 S2 (Const. #216) Li Li (Const. #111) B10S10 (Const. #111) B2 S2 (Const. #111) BDOP #4 Lend (1.0 Acre)	5,500 1,100	5,500 1,100		2,500
Site 1A	B2 S3 (Const. #216) B1 S10 (Const. #111) B2 S2 (Const. #111) B1 S10 (Const. #111) B2 S2 (Const. #111) BDOP #1 Lend (1.0 Acre) Cottage type, 3-sta. structure	5,500	5,500		
Si to 14	B ₃ S ₃ (Const. #216) B ₁₀ S ₁₀ (Const. #111) B ₁₀ S ₁₀ (Const. #111) B ₁₀ S ₁₂ (Const. #111) Const. #111 BOOP #4 Land (1.0 Acre) Cottage type, 3-sta. structure Contingency	5,500 1,100 6,600	5,500 1,100 6,600 100	2,500	2,500 13,200
Site 14 2 2 2 Location N	B2 S2 (Const. #216) H 10 (Const. #111) B3 S2 (Const. #111) B10 S10 (Const. #111) BDOP #4 Land (1.0 Acre) Cottage type, 3-sta. structure Contingency Deloc type light system TOTAL o. 16 (Montauk Point)	5,500 1,100 6,600 4,00	5,500 1,100 6,600 100	2,500	2,500 13,200 500
2 2 2 Location N Site 10	b. 15 (Shagwong) B ² S ² (Const. #216) Li Li (Const. #111) B ³ S ³ (Const. #111) B ³ S ³ (Const. #111) BOOP #4 Land (1.0 Acre) Cottage type, 3-sta. structure Contingency Deloo type light system TOTAL o. 16 (Montauk Point) G-1, BC-1, & BC-2	5,500 1,100 6,600 400 \$7,000	5,500 1,100 6,600 100 \$6,700	2,500	2,500 13,200 500
Site 14 2 2 2 Location N	B2 S2 (Const. #216) H 10 10 (Const. #111) B3 S3 (Const. #111) B10 S12 (Const. #111) BDOP #4 Land (1.0 Acre) Cottage type, 3-sta. structure Contingency Delco type light system TOTAL o. 16 (Montauk Point) G-1, BC-1, & BC-2 Cottage type, 3-sta. structure	5,500 1,100 6,600 400 \$7,000	5,500 1,100 6,600 100 \$6,700	2,500	2,500 13,200 500
2 2 2 Location N Site 10	b. 15 (Shagwong) B ² S ² (Const. #216) Li Li (Const. #111) B ³ S ³ (Const. #111) B ³ S ³ (Const. #111) BOOP #4 Land (1.0 Acre) Cottage type, 3-sta. structure Contingency Deloo type light system TOTAL o. 16 (Montauk Point) G-1, BC-1, & BC-2	5,500 1,100 6,600 400 \$7,000	5,500 1,100 6,600 100 \$6,700	2,500 \$2,500	2,500 13,200 500
2 2 2 Location N Site 10 3	B2 S2 (Const. #216) H 10 10 (Const. #111) B3 S3 (Const. #111) B10 S12 (Const. #111) BDOP #4 Land (1.0 Acre) Cottage type, 3-sta. structure Contingency Delco type light system TOTAL o. 16 (Montauk Point) G-1, BC-1, & BC-2 Cottage type, 3-sta. structure	5,500 1,100 6,600 400 \$7,000 5,500 1,100 6,600	5,500 1,100 6,600 100 \$6,700 1,100 6,600	2,500 \$2,500 Note 1	2,500 13,200 500 \$16,200

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Exhibit 8-B, Page 2 of 12 pages

Cost Estimate and Priority Guide

FIRE CONTROL - ENGINEERS

Pri-: Item					
ority: No.	Description of Project : 15	terials	Labor:	Land :	Total
	. 16 (Montauk Point) (Cont'd.) Tide Station No. 1.				
Site IE		150	8 150	Note 1	\$ 30 0
Site 1	BC-3, BC-10:#1, BDOP #5, Net. Sta. #1, & Sig. 6ta. #1	g to se	nice re	39.7	
2	Cottage type, 2-sta. structure Contingency	5,400	4,500 900 5,400	Note 1	10,800
Site 2A	B ₁ ⁵ s ₁ ⁵ (Const. #112)				
3	Manhole type structure Contingency	2,100 400 2,000	400	Note 1	L,800
Site 2B	B ₂ S ₂ (Const. #113)				
3	Manhole type structure Contingency	5,400 400 5,000	400	Note 1	800 ل
Site 20	B ₃ ³ S ₃ ³ (Const. #216)				
	B ₁₀ S ₁₀ (Const. #111)				
•.	#12512 (Const. #114) Syll				
	37mm OP				
2 .	Secol tower, 3-deck		6,000		
	Contingency	1,200 7,200		Note 1	17,400
	TOTAL	zl _{1,150}	\$24,150	None	\$48,300
Location No	. 17 (Whale Hill, Gardners Islan	<u>ad)</u>			~
	B ¹ ₅ S ¹ ₅ (Const. #217)				
	B5 S5 (Const. #114)				
	BDOP #6 & 37 mm OP				
2	Land (1.5 Acres)			6,550	6,550
5	Cottage type, 2-sta. structure Contingency	5,500 1,100 6,600	5,500 1,100 6,600		13,200
2	Delco type light system	400	100		500
 -	TOTAL	87,000	\$6,700	\$6,550	\$20,250
	nd to be purchased for construct 13 and #216 (See Exhibit 3-A-1)	ion of I	satteries	Const.	#112,

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Exhibit 8-B, Page 3 of 12 pages

Form 30. ANNEX B

H. D. of L.I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL mad ORDELINCE

Arranged by Battery

- :		: :	Signal		
y:1	Tem:Site	: Description of :Ordnance:	Equipment: 1	abor : To	tal
<u>.:</u>	no.: lio.	: Project : :			
	Pottom.	"2 (Compt. 3332) p. 248 p.			
-	Buccery .	1 (Comst. 112) 2-16" Gums, 1	ontauk Point	llen York.	
	1-4	Cuns (Location 16, Nontauk Pt.	.1		
		(= :: :=:= =:,::=== ::,:	,		
		Signal			
		6 Tel. Box, EE-91	240.00		
		8 H & C Set, HS-17A	200.00		
		2 Bell, T.I. MC-153	22.00		
		8 Boxes, Leatherproof, RE-63	160.00		
		Contingency	120.00	100.00	842.00
	1-c	BCP (Location 16, Montauk Pt	. 1		
		the factorial to be beautiful to	••)		
		Signal			
		€ Tel. Box EE-91	180.00		
		5 H & C Set,ES-17A	125,00		
		l Hand Set, TS-12A	12.00		
		1 8/B, BD-105	230.00		
		1 Bell, T.I.	11.00		
		1 Tel. Wall	20.00		
		Contingency	120.00	100.00	795.00
		Ordnance			
		1 Az. Inst. H-1910-Al 1125.	.00		
		& Recorders, T.I. 110.			2275 A
					1235.00
	1-B	Plotting Room (Location 16,	Montauk Pt.)		
		Signal			
		16 Tel. Box,EE-91	400.00		
		14 H & C Set, HS-17A	480,00		
		2 Hand Set, TS-12A	350.00		
		1 Bell, T.I., HC-153	26.00		
		1 S/B BD-95	11.00		
		1 %adio SCR 281	300.00		
		1 Tel. Wall	500-00 20-00		
		Contingency	340.00	340.00	2365.00
				010400	2000200
		Ordnance			
		1 Director,SC 16* Guns 75000.00			
		16" Guns 75000.00 1 Bd.Adj.,Fire			
		H-1 250.00 1 Bd.Range Corr.			
		K-1 900.00			
		1 Scale Pred. 19.00	r.		
		1 Indicator, WindComp125.00			86294.00

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Exhibit 9B , Page 14 of 41 pages.

Form 120. Annex B

H. D. of L.I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

ri-: : : :	: Sign		
rity:Item:Site: Description of :0:	rdmance: Equip- :	Labor :	Cotal
: No.: No.: Project :	: ment :		
			• •
Battery 1 (Const. #112) 2-16	Gums, Rontauk Pt.,	H.Y. (Cont	<u>e)</u>
3 1-A B-1 S-1 (Location 10	O Fasthampton, W.Y.)		
2 1-W P-1 0-1 (Decretor 1	O,DEC WINE POOL, #111.,		
Signal			
1 Tel. Well	20.00		
3 Tel. Box EE-91	90.00		
3 H & C Set, HS-17.			
1 Bell T.I. MC-153			
Contingency	40.00	40.00	276.00
00.20.003			
Ordnance			
1 D.P.F.	4500.00		
l Az. Instrument -			
M-1910-A1	1125.00		5625 .00
2-2-2-12	11444		0020.00
3 1-A B-2 S-2 (Location 1	1 Amagansett, N.Y.)		
Signal			
3 Tel. Box EE-91	90.00		
3 H & C Set, HS-17			
1 Bell, T.I.	11.00		
Contingency	35.00	25.00	236-00
· continuently	***************************************	.20000	20000
Ordnanče			
2 Az. Instrument			
F-1310-Y1	2250.00		2250.00
2-1010-111	200000		
3 1-A B-3 S-3 (location)	3A, Hill 100, Hontau	k Pt. N.Y.)	
•	•	•	
Signal			
3 Tel Box, EE-91	90.00		
3 H & C Set. ES-1	7A 75.00		
. 1 Bell, T.I. MC-1			
Contingency	35,00	25.0	236,00
•			·
Ordnance			
2 Az. Instruments			
N-1910-A1	2250.00		2250 .00
21-2020-22			

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Exhibit 98 ,Page 15 of 41 pages.

Form #20. Annex B

H. D. of L.I.S.

Exhibit 98 Page 16 of 41 pages.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

Pri- :	1 1			Signa	1 .	
	tem:Site:	Description of : Orde	ange E			Total
	No.: No.:			1		10 041
			-			
	Battery	#1 (Const. #112) 2-16 %	ams. Mont	uk PtY.Y	. (Cont	a)
	200000	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	, , , , ,		<u> </u>	= '
5	1-8	B-4 S-4 (Location 13-A,	Ditch Pl	in, Montau	k PtK.	Y.)
				•		•
		Signal				
		S Tel. Box EE-91		90.00		
		3 H & C Set, HS-17A		75.00		
		1 Bell, T.I. MC-153		11.00		
		Contingency		35,00	25.00	236.00
		Ordnance				
		2 Az. Inst.M-1910-Al	2250.00			2250.00
3	Z-A	B-5 S-5 (Location 16, 1	iontank Pt)		
		· · ·		•		
		Signal				
		5 Tel.Box, EE-91		90.00		
		1 Tel.Well		20.00		
		S H & C Set, HS-17A		75.00		
		1 Bell T.I.,MC-153		11.00		
		Contingency		35.00	25,00	25 6.00
		Ordnance				
		OT-COMPANY CO				
		2 Az .Inst.M-1910-Al	2250,00			2250.00
			2250.00	TOTAL RAT	175.RY #1\$	
			2250,00	TOTAL BAT	ieri #1 ^{\$}	2250.00 107399.00
	Battery	2 Az.Inst.H-1910-Al				10739 9.00
	Battery					10739 9.00
3	Battery 1-D	2 Az.Inst.H-1910-Al	6" Guns, l	ontauk Pt.		10739 9.00
3		2 Ar.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont	6" Guns, l	ontauk Pt.		10739 9.00
3		2 Az.Inst.H-1910-Al No.2(Const.Ho.113) 2-1 Guns (Location 16 Mont Signal	6" Guns, l	ontauk Pt.		10739 9.00
3		2 Ar.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 7s1 Rox, EE-91	6" Guns, l	ontauk Pt. Y.) 240.00		10739 9.00
3		2 Az.Inst.H-1910-Al No.2(Const.No.115) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, FE-91 8 H & C Set, MS-17A	6" Guns, l	7.) 240.00 .200.00		10739 9.00
5		2 Az.Inst.H-1910-Al * No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box,EE-91 8 H & C Set,ES-17A 2 Bell T.T.MG-153	6" Guns, l	ontauk Pt. Y.) 240.00		10739 9.00
5		2 Ar.Inst.H-1910-Al Mo.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, SE-91 8 H & C Set, MS-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof	6" Guns, l	240.00 220.00 22.00		10739 9.00
5		2 Az.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, HS-17A 2 Bell T.I.MG-153 8 Doxes, Weatherproof EE-63	6" Guns, l	240.00 22.00 20.00	, New Tork	10735 9 .00
5		2 Ar.Inst.H-1910-Al Mo.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, SE-91 8 H & C Set, MS-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof	6" Guns, l	240.00 22.00 20.00		10739 9.00
	1-0	2 Ar.Inst.H-1910-Al No.2(Const.No.113) 2-1 Cuns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, HS-17A 2 Bell f.I.MG-153 8 Boxes, Neatherproof EE-63 Contingency	6 Guns, R	240.00 .200.00 .200.00 .22.00 160.00 120.00	, New Tork	10735 9 .00
3		2 Ar.Inst.H-1910-Al Wo.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, HS-17A 2 Bell f.I.MG-153 8 Boxes, Weatherproof EE-63 Contingency	6 Guns, R	240.00 .200.00 .200.00 .22.00 160.00 120.00	, New Tork	10735 9 .00
	1-0	2 Az.Inst.H-1910-Al *No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, ES-17A 2 Bell f.T.MO-163 8 Boxes, Weatherproof EE-63 Contingency ECP (Location 16, Monta)	6 Guns, R	240.00 .200.00 .200.00 .22.00 160.00 120.00	, New Tork	10735 9 .00
	1-0	2 Az.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, HS-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof BE-63 Contingency BCF (Location 16, Monta Signal	6 Guns, R	240.00 .200.00 .200.00 .200.00 .200.00	, New Tork	10735 9 .00
	1-0	2 Az.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Rox, EE-91 8 H & C Set, ES-17A 2 Bell T.I.MG-153 8 Roxes, Weatherproof EE-63 Contingency BCP (Location 16, Monta Signal 6 Tel.Box, EE-91	6" Guns, R	240.00 240.00 220.00 22.00 150.00 120.00	, New Tork	10735 9 .00
	1-0	2 Az.Inst.H-1910-Al *No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, ES-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof EE-63 Contingency ECP (Location 16, Monta Signal 6 Tel.Box, EE-91 5 H & CSet, ES-17A	6" Guns, R	240.00 200.00 22.00 160.00 120.00	, New Tork	10735 9 .00
	1-0	2 Az.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, HS-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof BE-63 Contingency BCF (Location 16, Monta Signal 6 Tel.Box, EE-91 5 H & CSet, HS-17A 1 Hand Set, TS-12A	6" Guns, R	240.00 .200.00 22.00 160.00 120.00 (.)	, New Tork	10735 9 .00
	1-0	2 Az.Inst.H-1910-Al **No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Rox, EE-91 8 H & C Set, ES-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof EE-63 Contingency BCP (Location 16, Monta Signal 6 Tel.Box, EE-91 5 H & CSet, ES-17A 1 Hand Set, TS-12A 1 S/8 BD-105	6" Guns, R	240.00 240.00 220.00 22.00 160.00 120.00 (.)	, New Tork	10735 9 .00
	1-0	2 Ar.Inst.H-1910-Al *No.2(Const.No.113) 2-1 Cuns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, HS-17A 2 Bell T.I.MG-153 8 Boxes, Neatherproof EE-63 Contingency BCP (Location 16, Monta Signal 6 Tel.Box, EE-91 5 H & C Set, ES-17A 1 Hand Set, TS-12A 1 S/B ED-105 1 Bell, T.I.	6" Guns, R	240.00 200.00 22.00 160.00 120.00 (.)	, New Tork	10735 9 .00
	1-0	Z Az.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, ES-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof EE-63 Contingency BCF (Location 16, Monta Signal 6 Tel.Box, EE-91 5 H & CSet, ES-17A 1 Hand Set, TS-12A 1 S/B ED-105 1 Bell, T.I. 1 Tel. Wall	6" Guns, R	240.00 240.00 220.00 22.00 160.00 120.00 (.) 180.00 125.00 12.00 230.00 11.00 20.00	New Tork 100,00	10735 ⊋.00 :- 842.30
	1-0	Z Az.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Rox, EE-91 8 H & C Set, ES-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof EE-63 Contingency BCF (Location 16, Monta Signal 6 Tel.Box, EE-91 5 H & CSet, ES-17A 1 Hand Set, TS-12A 1 S/B ED-105 1 Bell, T.I. 1 Tel, Wall Contingency	6" Guns, R	240.00 240.00 220.00 22.00 160.00 120.00 (.) 180.00 125.00 12.00 230.00 11.00 20.00	, New Tork	10735 9 .00
	1-0	2 Ar.Inst.H-1910-Al Wo.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Box, EE-91 8 H & C Set, HS-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof BE-63 Contingency BCF (Location 16, Monta Signal 6 Tel.Box, EE-91 5 H & C Set, ES-17A 1 Hand Set, TS-12A 1 S/B BD-105 1 Bell, T.I. 1 Tel, Wall Contingency Ordnamce	6 Guns, R	240.00 240.00 220.00 22.00 160.00 120.00 (.) 180.00 125.00 12.00 230.00 11.00 20.00	New Tork 100,00	10735 ⊋.00 :- 842.30
	1-0	Z Az.Inst.H-1910-Al No.2(Const.No.113) 2-1 Guns (Location 16 Mont Signal 8 Tel Rox, EE-91 8 H & C Set, ES-17A 2 Bell T.I.MG-153 8 Boxes, Weatherproof EE-63 Contingency BCF (Location 16, Monta Signal 6 Tel.Box, EE-91 5 H & CSet, ES-17A 1 Hand Set, TS-12A 1 S/B ED-105 1 Bell, T.I. 1 Tel, Wall Contingency	6" Guns, R	240.00 240.00 220.00 22.00 160.00 120.00 (.) 180.00 125.00 12.00 230.00 11.00 20.00	New Tork 100,00	10735 ⊋.00 :- 842.30

SECRET

H.D. OI L.I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

Pri-:	1 1		1 1	Signal		
ority:Item	:Site:	Description of	:Ordnance:	Equipment :	Labor :	Total
: No.	: No.:	Project	1 1	1		
		#0 /0 . *****			(
	Batte	ry #2 (Const. #113)	2-16" Guns,	Montauk Pt., 1	(.Y.(Cont'D)	-
2	1-E	Plotting Room (Loca	tion 16 Nowt	aut Dt.)		
•		11000112 (2002	TION TO MOME	ALLE 7 007		
		Signal				
		16 Tel. Box EE-91		480.00		
		14 H & C Set, HS-1	7A	350.00		
		2 Hand Set, TS-12A		24.00		
		1 Bell T.I. MC-15	2	11.00		
		1 S/B,BD95		300.00		
		l Radio SCR 281		500.00		
		l Tel. Wall		20.00		
		Contingency		840.00	340.00	2365.00
		5 4				
		Ordnance				
		1 Director,SC				
		16" Guns	75000.00			
		1 BD.Adj.Fire,U-1	250.00			
		1 Bd.Def1.K-1	1800.00			
		1 Bd.Range Corr.M-	1 900.00			
		1 Bd.Plot. N-3	6000.00			
		1 Bd.Spot. H-3	1950.00			
		1 Corr.Perc.N-1	125.00			
		l Rule, Set, Forward	15.00			
		4 Recorders, T.I.	110.00			
		1 Scale Bred.	19,00			
		1 Indicator, Wind.	comp. 125.00			86294 •00
3	1-B	B-1 S-1 (Location)	3, Hill 100	, Montauk Pt.,	N.Y.)	
		Signal				
		1 Tel-Wall		20.00		
		3 Tel. Box, EE-91		90.00		
				75.00		
		5 H & C Set, HS17A 1 Bell, T.I.		11.60		
		Contingency		40.00	40.00	276.00
		concingency		40400	40 400	276.00
		Ordnance				
		2 Az. Instrument				•
	•	H-1910-A1	2250.00	ı		2250.00
_						
3	1-Y	B-2 S-2 (Location 1	oa, Ditch Pla	in,N.I.)		
		Signal				
		5 Tel.BoxEE091		90.00		
		3 H & C Set HS17A		/5 .0 0		
		1 Bell T.I.		11.00		
		Contingency		35,00	25.00	236.00
		Ordnance				
		1 AZ.Inst.W1910-A	2250.00)		2250.00

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Form 120. Annex B

H. D. of L'I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

Pri- :	: :		t t	Signa	1 .	
ority:Item	:Site:	Description of	:Ordnance:	Equipment:	Labor :	Total
: No.	: No.:	Project	: :		:	
	Batter	y #2 (Const. #113) 2-	16" Guns, Ko	ontauk Pt., N.	Y. (Cont'd))
3	2-B	B3-S3 (Location 16,	Montauk Pt.	, N.Y.)		
		Signal				
		3 Tel. Box EE-91		90.00		
		3 H.& C Set, HS-17A		75.00		
		1 Bell T.I.		11.00	05.00	
		Contingency		35.90	25.00	236.00
		Ordnance	4500 00			
. •		1 D.P.F.	4500.00			
		1 Az.Inst. H-1910-A	1 1125.00			5625.0 0
3 .	2-B	B-4 S-4 (Location 6	O-2 Black To	. D T 1		
•	L-D	D-4 2-4 (TOORCION C	O-C,DIGOR I	se, mere,		
	•	Signal				
		3 Tel Box EE-91		90,00		
		5 H & C Set, HS-17A		75.00		
		1 Bell T.I.		11.00		
		Contingency		35,00	25.00	236.00
		Ordnance				
		2 Az .Inst.111910-A1	2250 •00			2250,00
3	5-C	B-5 S-5 (Location 60)=5 Block its	. р.т \		
ŭ	0 0	n-o n-o (tocación o	-U, BIOCK WA	******		
		Signal				
		1 Tel.Wall		20,00		
		3 Tel.Box,EE-91		90.00		
		3 H & C Set. HS-17A		75.00		
		1 Bell. T.I.		11.00		
		Contingency		40.00		275.00
		Ordnance				
		2 Az.Inst,11910-Al	2250.00			2250,00
3	4-A	B-6 S-6				
		G1 1				
		Signal		00.00		
		3 Tel Box, EE-91		90.00		
		3 H & C Set, HS-17A		75.00		
		1 Bell. T.I.		11.00		236.00
		Contingency Ordnance		35.00	, 20,00	200,000
		1 D.P.F.	4500.00			
		l Az.Inst.M1910-Al				5625,00
		- Westing Assertation-VI	2220400			
				TOTAL BAY	TTERY # 2	113280.00

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Exhibit 9B Page 18 of 41 pages

H. D. of L.I.S.

Cost Estimate and Priority Guide

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

Pri- : :	:			Signa		
rity:Item:Si		Description of	:Ordnance:	Equip- :	Labor :	Total
: No .: N	10.:	Project		ment :	<u>:</u>	·
r	Rofte	ry #3 (Const #216)	2-6" Gine. 10	ontank Pt. N.	٧.	
=	2000	13 40 (001204,210)	c-o duns, in	Modul I Ce , Ne	<u></u> *	
2 1-	-G (uns (Location 16, K	ontauk Pt.,N	.Y.		
		•	-	•		
		Signal				
		8 Tel. BoxRE-91		240.00		
		8 H & C Set. HS-17A		200,00		
		2 Bell T.I.	_	22.00	•	
		8 Boxes, Weatherproof	·			
		BE-63		160.00		0.0.0
	•	Contingency		120.00	100.00	842.00
2. 1-	-F 1	BCP (Location 16, Mo	ntauk Pt.,N.	Y.)		
	•	Signal				
		6 Tel Box EZ-91		180.00		
		5 H & 6 Set, HS-17A		125.00		
		1 Hand Set TS-12A		12,00		
		1 S/B BD-105		230.00		
		1 Bell. T.I.		11.00		
		l Tol. Wall		20.00		
		Contingency		110,00	100.00	758.00
	(Ordnance				
		1 Az Inst.k1910-Al	1125.00			
		4 Recorders, T.I.	110.00			1235.00
		Platting Room (Locat	dan 16 Manta			
2 1.	- G	Placeing Room (Local	TOU TO FOUR	WE PC+,N·E+)		
		Signal				
		13 lel Box,EE-91		390.00		
		11 7 & C Set, HS-17/	L	275.00		
		2 Hand Set, TS-12A		24.00		
		l Bell T.I.		11.00		
		1 S/B BD-95		300.00		•
		l Tol Kell		20.00		*2/0 0
		Contingency		200.00	140.00	1360.0
		Ordnance				
		1 Director,SC,				
		6" Guns	25000 •00			
		1 Bd.Adj.Fire,M-1	250 •00			
		1 Bd Range Corr, E-				
		1 Bd.Defl. M-1	1800.00			
		1 Bd.Plot, M-3	6000 •00			
		1 Bd.Spot. H-3	1950.00			
		l Corr.Perc.K-l	125,00			
		4 Recorders, T.I.	110.00			
		1 Rule Set Forward				
		1 Scale Pred.	19.00			
		1 Indicator, Wind, C	omp ,125 .00			36294.00

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Form #20. Annex B

H.D. of L.I.S.

COST ESTIMATE and PRIORITY GUIDE

FIRE CONTROL - SIGNAL and ORDNANCE

Arranged by BATTERY

Pri- :	. :		:		Si	gha	1 :	
ority:Item		Description of		ARCO:	Equip-	:	Labor :	Total
	No .:	Project	1		ment	_:_	<u>:</u>	
					•		()	
	Batte	ry # 3 (Const.#216)	2-6*Gi	ns, Kont	auk Pt,	I.Y.	(Cont'd)	
					\			
2	1-B	B-1S-1 (Location 13	A, Dite	h Plain	, N.Y.)			
		·-						
		Signal			90.0	~		
		3 Tel.Box EE-91			75.0			
		5 H & C Set, HS-17A			11.0			
		1 Bell T.I.			35.0		25.00	236,00
	-	Contingency			30 •	•	20100	200,000
		Ordnance	•					
		2 Az. Inst.H1910-A	1	2250.00				2250.00
		Z RES. INSCRIBIO-A	•	LL00 (00				
2	.1 - A	B-2 S-2 (Location 1	5,Sha	gwongPt.N	(.Y.)			
		04 3						
		Signal 1 Tel. Wall			26.	ഹ		
		5 Tel. Box EE-91			90.			
		3 H & C Set, HS-17A			75			
		1 Bell, T.I.	•		11.			
		Contingency			40.		40.00	276.00
		0011421601191					·	
		Ordnance						
		2 Az. Inst. 11910-	-Al	2250.00				225C •00
2	2-C	B-3 S-3 (Location)	16, No	ntauk Pt	.,N.Y.)			
•								
		Signal						•
		5 Tel. Box EE-91				•00		
		3 H & C Set, HS-17/	A.			•00		
		1 Bell. T. I.				•00	95 99	23€.00
		Contingency			35	•00	25.00	226.00
		0-3						
		Ordnance 1 D.P.F.		4500.00	,			
		1 Az. Inst,11191	0-41	1125.00				5625.00
		•				_	\	
2	1-G	B-4 S-4 (Location	24 A,	Hill 90.	,Fisher	8 I:	5 • , N • Y •)	
		Signal						
		1 Tel. Mall				•00		
		3 Tel. Fox EE-91	_ 4			•00		
		3 H & C Set, HS-1	7A			•00		
		1 Bell. T.I.				•00		276.00
		Contingency			40	•••	40.00	210.00
-		Oudmana.c						
		Ordnance						
		2 Az. Inst. K-1910-Al		2250.0	0			2250.00
		F-TATO-VT		2200 0	~			

Arranged by BATTERY

Pri-: :	•			
ority:Item:S		: Signinance: Equipment :	Labor:	Total
: No . :	No.: Project :	i i	1	10041
	··			
Bat	tery # 12 (Const. #114)2-16"	Juns, Watch Hill, R.I.	(Cont'd)	
3 1	-A B-1 S-1 (Location 13 , H	111 100, Montauk Pt.	, N.Y.)	
	Signal			
	3 Tel.Box EE-91	90.00		
	3 H & C Set, HS-17A	75.00		
	1 Bell. T.I.NC-153	11.00		
	Contingency	35.00	25.00	236.00
		*****		, =====
	Ordnance			
	1 DPF	4500.00		
	l Az.Inst.,M-1910-Al	1125.60		5625,00
3 1	-A B-2 S-2 (Location 13A),D	itch Plain, N.Y.)		
	Signal			
	l Tel .Wall	20.00		
	3 Tel.Box,EE-91	90,00		
•	3 H & C Set, HS-17A	75.00		
	1 Bell, T.I., MC-153	11.00		
	Contingency	40.00	40.00	276.00
	Ordnance	****		
	2 Az.Imst.,M-1910-Al	2250.00		2250,00
3 1	-A B-3 S-3 (Location 15) Sh	sewone Pt. L.I. N.Y	.)	
_	Signal		• ,	
	5 Tel.Box, EE-91	90.00		
	3 H & C Set, HS-17A	75.00		
	1 Bell, T.I. MC-153.00	11.00	•	
	Contingency	35 •00	25.00	236,00
	• • • • •	• '		
	Ordnance 2 Az.Inst., M-1910-Al	2250.00		2250,00
	Z AL-IIISC-, M-1510-AI	2230 400.		2230400
3 2	C-C B-4 S-4 (Location 16, Mo	intauk Pt., N.Y.)		
	,			
	Signal			
	3 Tel Box EE-91	90.00		
	3 H & C Set; HS-17A	75.00		•
	1 Bell,T.I.	11.00 35.00	25.00	236.00
	Contingency	33.00	£0.000	230.00
	Ordnance			
	1 DPF	4500.00		
	1 Az. Inst., N-1910-Al			5625.00
	-			

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Exhibit 9B Page 37 of 41 pages

HESIC INFORMATION FOR CONTROL AND COMMUNICATIONS DIAGRAMS

Designation :	Purpose	1 Type	Ter	minatio	on of each Ci	rcuit :
1 10	or	s of	Install			: Loc. :Check
Installation :		: Phone	1		<u>t</u>	: No. :Column
Location 15	Shagwong	Pt., L.	I., N.Y.			
Site 1-A		•			:	1 1
B 2/3 S 2/3	0bs	HS	PR 3	(216)	Montauk Pt.	16-1G
(Const. 216)	Rdr	BS	PR 3	(216)	Montauk Pt.	16-1G
(002000 120)	Sptr	* ES	1 PR 3	(216)	Montauk Pt.	
	TÍ	***	PR 3	(216)	Montauk Pt.	
	Post	Wall	PSB #1	(==-,	Montauk Pt.	
B 4/10 S 4/10 t	Obs	* BS	PR 10	(1111)	Wilderness	
			PR 10	(111)		
(Const. 111)	Rdr	ES			Wilderness	
	Sptr	HS	PR 10		*Wilderness	Dr 1 281 13
_	TI		PR 10			
B 3/12 x 3/12	Obs	HS	PR 12	(114)	Watch Hill	28-1C
	Rdr	HS	PR 12		Watch Hill	
•	Sptr	¹ ES	PR 12		Watch Hill	
	TI		PR 12	(114)	Watch Hill	28-1C
37mm OP 4/1 1	Int	1 EE-8	: 57mm B0	2 1	Ditch Plain	13A-1A
BDOP #4	Int		BDCP		Montauk Pt.	
Site 2-A			2201		PDIOUGE 100	10-10
37mm Sec 3/1 1	Tmt	19 880	* 37mm B		Instab Diese	1774 71
	Int	0-3A 3	- 21mm P	, I	Ditch Plair	13A-1A
Site 2-B	Om 3 am	7777 O	50 5 4	4D 3	Manda da Di	10.10
SC S/L #3P	Order	EE-8			Montauk Pt.	
•	OL GOL	* EE-8		rier	Local	::
	Order	2 EE-8	PP		Local	
SC S/L #4P	Order	EE-8	SC S/L		Montauk Pt.	
	Or dor	EE-8		ller	Local	·
	Order	2 EE-8	PP		Local	****
Location 16	Montauk P	ti L.I.,	h.Y.		•	t f
Site 1-A						
Guns 1	Order	2HSO	BC 1) MontaukPt.	
(Const. 112) '	Range	2ESO	'PR 1	(112)	Monkauk Pt.	'16-1B'
•	Az.	2BS0	PR 1		Montauk Pt.	
	Checkback		PR 1) Montauk Pt.	
:		:	PR 1		Montauk Pt.	
AANG Plat 1/1	Order	EE-8	AAMG B		Montauk Pt	
Site 1-B	0.			-	2.0.000000	
PR 1	Order	1 ES	BC 1	(112) Montauk Pt.	16-1C:
(Const. 112)	0bs	HS	BC 1	(119) Montauk Pt.	16-10 16-10
(AOHAA TIE)	Range	HS	Guns 1)Montauk Pt.	
:		•	A .			
	AL.	110	'Guns 1) Montauk Pt.	
	Checkback		Guns 1) Montauk Pt	
	MAG Int	2HS	Magazi	112 112) Montauk Pt	. 16-1A
•	TI	*) Montauk Pt	
	Post	Wall	PSB #1	- /-/	Montauk Pt	
	Obs	BS BS	BI/I S	1/1(11	2)Easthampto	n 10-1A
•	Mai	133			2) Easthampto:	
	Sptr	BS			2)Easthampto	
	Obs	. HS	B2/1 S	2/1(11	2)Amagansett	11-1A
;	t Rdr	t HS	'B2/1 S	2/1(11	2)Amagansett	111-1A1
	Sptr	BS	B2/1 S	2/1(11	2)Amagansett	11-1A

HS-Head Set, TS-Hand Set, EE8-Field Telephone, TI-Time Interval Bell.

 $\underline{s} \, \, \underline{e} \, \, \underline{c} \, \, \underline{R} \, \, \underline{e} \, \, \underline{t}$

Exhibit 11-B, Page 3 of 30 pages

```
Termination of each Circuit
Designation
                 Purpose
                            : Type
                                                                    1 Loc. 1Check
                                     :Installation :
                                                          Place
                     of
                            s of
      of
                                                                    : No. :Column
Installation : Telephone : Phone
                Montauk Pt., L. I., N. Y. (Cont'd.)
Location 16
 Site 1-B(Cont'd)
                                      B3/1 S3/1(112)Hill 100
                                                                      13-1A
                    Obs
PR-1
                                      'B3/1 S3/1(112)Hill 100
                                                                      '13-14'
(Const. 112)
                    Rdr
                                      B3/1 S3/1(112)Hill 100
                                                                      13-1A
                    Sptr
 (Cont'd.)
                                      B4/1 S4/1(112)Ditch Plain
                                                                      13A-1B
                     8ďQ
                                      B4/1 S4/1(112)Ditch Plain
B4/1 S4/1(112)Ditch Plain
                                                                      134-18
                    Rdr
                                                                       13A-1B
                    Sptr
                                      B5/1 S5/1(112)Montauk Pt. 185/1 S5/1(112)Montauk Pt.
                                                                      16-2A
                    Obs.
                                                                      116-21 1
                    Rdr
                                      B5/1 S5/1(112)Montauk Pt.
                                                                       16-2A
                    Sptr
Site 1-C
G-1
                    Order
                                HS
                                       C-1
                                                      Ft. Wright
                                                                       21-1N
                     Int
                                ES
                                       C-1
                                                      Ft. Wright
                                                                       21-1N
                    Order
                                НS
                                      BC 1
                                                (112) Montauk Pt.
                                                                      16-1C
                                                (112) Nontauk Pt.
                     Int
                                HS
                                       BC 1
                                                                       16-1C
                    Order
                                                (113) Montauk Pt.
                                HS
                                       BC 2
                                                                       16-1C
                                HS
                     Int
                                      FBC 2.
                                                (113) Montauk Pt.
                                                                      116-1C:
Site 1-C
                                                (216) Montauk Pt. (216) Montauk Pt.
                    Order
                                HS
                                       BC 3
                                                                       16-1F
                                      BC 3
                                HS
                     Int
                                                                      116-1F1
                    Order
                                                                       21-1N
                                ES
                                       BDCP
                                                      Ft. Wright
                     Int
                                ES
                                       BDCP
                                                      Ft. Wright
                                                                       21-1N
                                      ¹PSB#1
                     Post
                             1 Wall
                                                      Montauk Pt.
                                                                      '16-1D'
BDCP
                    Order
                                ES
                                       37mm BC 1
                                                      Ditch Plain
                                                                       13A-1A
                                ES
                                       37mm BC 1
                     Int
                                                      Ditch Plain
                                                                       13A-1A
                                      BDOP #1
                     Int
                                                      Easthampton
                                                                      10-1A
                     Int
                                       BDOP #2
                                                      H111 100
                                                                       13-1A
                                      BDOP #3
BDOP #4
                     Int
                                                      Ditch Plain
                                                                       13A-1A
                     Int
                                                      Shagwong:
                                                                      '15-1A'
                                       BDOP #5
                     Int
                                                      Montauk Pt.
                                                                       16-1F
                     Int
                                       BDOP #6
                                                      Whale Hill
                                                                       17-1B
                             1 Wall
                                      PSB #1
                     Post
                                                      Montauk Pt.
                                                                       '16-1D:
SC S/L CP 1
                    Order
                                RS
                                       SC S/L BC
                                                      Ft. Wright
                                                                       21-117
                                      SC S/L BC
                                                      Ft. Wright
                     Int
                                HS
                                                                       21-1N
                     Int
                                HS
                                                      Hill 100
                                                                       13-1B
                                      S/L #2 P
S/L #3 P
S/L #4 P
                                HS
                     Int
                                                      Hill 100
                                                                       13-1B
                     Int
                                HS
                                                      Shagwong
                                                                       15-2B
                     Int
                                ES
                                                      Shagwong!
                                                                       15-2B
                                       S/L #5 P
S/L #6 P
                                HS
                     Int
                                                                       16-2D
                                                      Montauk Pt.
                                HS
                     Int
                                                      Montauk Pt.
                                                                       16-2D
                                HS
                                       'S/L#7 P
                     Int
                                                      Whale Hill
                                                                       17-2B
                                       S/L #8 P
                     Int
                                HS
                                                      Whale Hill
                                                                       17-2B
                                       PSB #1
                     Post
                               Wall
                                                       Montauk Pt.
                                                                        16-1D
Radio Sta #1
                                       TSB #1
                                                                       16-1D:
                     Int
                                ES
                                                      Montauk Pt.
                              2 Desk
                     Post
                                       PSB #1
                                                       Montauk Pt.
                                                                        16-1D
BC 1
                    Order
                                ES
                                       G-1
                                                       Montauk Pt.
                                                                        16-1C
(Constr. 112) 1
                                HS
                                                       Montauk Pt.
                     Int
                                       'G-1
                                                                       16-1C :
                    Order
                                HS
                                       PRL&Guns(112) Montauk Pt.
                                                                        16-1E&1A
                                       PRI&Sta.(112) Montauk Pt.
                     Obs
                                HS
                                                                        16-1B
                     TI
                                       PR 1
                                                (112) Montauk Pt.
                                                                        16-1B :
                                       PSB #1
                     Post
                               Wall
                                                       Montauk Pt.
                                                                        16-1D
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HS-Head Set, TS-Hand Set, EE8-Field Telephone, TI-Time Interval Boll.

SECRET

Exhibit 11-B. Page 4 of 30 pages

Basic Information for Construction of FIRE CONTROL AND COMMUNICATION DIAGRAMS

Designation :	Purpose	: Type	s Termination of each circuit s
of a	of	s of	:Installation: Place : Loc. :Check
Installation	Telephone	: Phone	
Location 16	contauk Pt.	, Lele,	N.Y. (Cont'd)
Site 1-C (Cont			
BC 2	Or get.	a BS	G-1 Montauk Pt. 16-10
(Const. 113)	Int	BS	G-1 Montauk Pt. 15-10
•	Order	HS	PR2&Gums(113) Montauk Pt. 16-1D & 1E
	aďO	; ES	PR2&Sta.(113) Montauk Pt. : 16-1D
	TI		PR 2 (113) Montauk Pt. 16-1D
	Post	Wall	PSB #1 Montauk Pt. 16-1D
Site 1-D		ŧ	t "tt
PR 2	Order	HS	BC 2 (113) Montauk Pt. 16-10
(Constr. 113)	Q bs	ES	BC 2 (113) Montauk Pt. 16-10
		t BS	Guns 2 (115) Montauk Pt. : 16-15
	Az.	HS.	Guns 2 (115) Montauk Pt. 16-1E
	Checkback		Guns 2 (115) Montauk Pt. 16-1E
8	MAG Int	1 2HS	Magazine(113) Montauk Pt. 16-15
	TI		BC 2 (113) Montauk Pt. 16-10
	Post	Wall	PSB #1 Montauk Pt. 16-1D
1		1 BS	*B1/2 S1/2(115)H111 100
	Rdr	HS	B1/2 S1/2(115)E11 100 13-1B
		HS	B1/2 S1/2(113)H11 100 13-13
:	Sptr		B2/2 82/2(113)Ditch Plain 13A-1A
	OUB		B2/2 82/2(113)Ditch Plain 13A-1A
	Rdr	ES	
•	Sptr Obe	ES	B2/2 S2/2(115)Ditch Plain 13A-1A
•	OUB		B3/2 S3/2(113) Montauk Pt. 16-2F
	Rdr	-	B3/2 S3/2(113)Montauk Pt. 16-2B
•	Sptr		B3/2 S3/2(113) Montauk Pt. 16-2B
•	Obs	·	1 B4/2 S4/2(115)SW Block Is. 1 60-2-2B
	Rdr		B4/2 S4/2(113)SW Block Is. 60-2-2B
	Sptr		B4/2 S4/2(113)SW Block Is. 60-2-2B
:	Oba.	·	B5/2 S5/2(113) Payne Block Is. 60-3-3C
	Rdr		B5/2 S5/2(113) Payne Block Is.60-3-3C
	Sptr		B5/2 S5/2(113)Payne Block Is.60-3-3C
:	Obs.	·	B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A
	Rdr		B6/2 S6/2(113)Clayhead Bl.I. 60-4-44
	Sptr		B6/2 S6/2(113)Clayhead Bl.I. 60-4-4A
FC Swbd Room		¹ 2 Desi	k PSB #1 Montauk Pt. 16-10
Site 1-E			- - -
Guns 2	Order	2HS0	BC 2 (113) Montauk Pt. 16-10
(Constr. 113)		2HSO	PR 2 (113) Montauk Pt. 16-1D
(000001. 110)	Az.	2HSO	PR 2 (113) Montauk Pt. 16-1D
	Checkback		PR 2 (113) Montauk Pt. 16-1D
	TI	1	FR 2 (113) Montauk Pt. 16-1D
	11		· · · · · · · · · · · · · · · · · · ·
AAMG Plat 2/1	Order	: EE-8	:AAMG BC 1 :Montauk Pt. :16-1F:
Site 1-EE			
Tide Station #	1 Post	Wall	PSB #1 Montauk Pt. 16-1D
Site 1-F	1	1	
BC 3	Order	HS	G-1 Ft. Wright 21-1N
(Constr. 216)	Int	HS	G-1 Ft. Wright 21-1N
•	: Order	t ES	:PR3&Guns(216):Montauk Pt. :16-1G:
	Obs	HS	PR3&Sta.(216) Montauk Pt. 16-16
	TI		PR 3 (216) Montauk Pt. 16-16
	· Post	: Wall	· · · · · · · · · · · · · · · · · · ·
			- 4

HS-Head Set, TS-Hand Set, EES-Field Telephone, TI-Time Interval Bell.

Basic Information for Construction of FIRE CONTROL AND COMMUNICATION DIAGRAMS

```
Designation : Purpose
                             : Type
                                           Termination of each circuit
                             t of
                                      :Installation :
                     of
                                                                     ! Loc.
                                                                              Check
 Installation : Telephone : Phone :
                                                                              :Column
 Location 16
                  Montauk Pt., L. I., N. Y. (Cont'd.)
 Site 1-F (Cont'd.)
Met Sta. #1
                      Int
                                RS
                                       HDCP
                                                       Ft. Wright
                                                                        21-1N
Signal Sta. #1
                                                                        16-1D
                     Post
                               Desk
                                       PSB #1
                                                       Montauk Pt.
BDOP # 5
                                                                       :16-1C:
                                                      :Montauk Pt.
                      Int
                                      : BDCP
AAMG BC 1
                     Order
                                R
                                       G-7
                                                       Ditch Plain
                                                                        13A-1B
                      Int
                                ES
                                       G-7
                                                       Ditch Plain
                                                                        13A-1B
                             : EE-8
                                                                       :16-1A:
                                      :AAMG Plat 1/1:Montauk Pt.
                     Order
                                       AAMG Plat 2/1 Montauk Pt.
                      Order
                               EE-8
                                                                        16-1E
                                       AAMG Plat 3/1 Local
                     Order
                               EE-8
                             : Wall
                                      PSB #1
                                                      Montauk Pt.
                                                                       :16-1D:
                     Post
Site 1-G
AAMG Plat 3/1
                     Order
                               EE-8
                                       AAMG BC 1
                                                       Local
                                                                       :16-1F:
                             : 2HSO
                                                 (216):Montauk Pt.
Guns 3
                     Order
                                      *RC 5
                               2HSO
                                                 (216) Montauk Pt.
                                                                        16-1G
(Constr. 216)
                     Range
                                       PR 3
                                                 (216) Montauk Pt.
                                                                        16-1G
                      Az.
                                2ESO
                                       PR 3
                ! Checkback !
                               2HS0
                                       PR 3
                                                 (216):Montauk Pt.
                                                                       :16-1G:
                                                 (216) Montauk Pt.
                      TI
                                       PR 3
                                                                        16-1G
                                                                        16-1F
PR 3
                                HS
                                       BC 3
                                                 (216) Montauk Pt.
                     Order
                                                 (216):Montauk Pt.
                                                                       :16-1F:
(Constr. 216) 4
                      Obs
                                HS
                                      BC 3
                                                 (216) Montauk Pt.
                                                                        16-1G
                                HS
                                       Guns 3
                     Range
                      Az.
                                 ES
                                       Guns 3
                                                 (216) Montauk Pt.
                                                                        16-1G
                                       Guns 3
                                                                        :16-1G:
                                HS
                                                 (216):Montauk Pt.
                Checkback
                  Mag Int
                                2HS
                                       Magazine(216) Montauk Pt.
                                                                        16-1G
                                                                        16-1F
                                                 (216) Montauk Pt.
                                        BC 3
                      TI
                                                                        :16-1D:
                               Wall
                                       : PSB #1
                                                       Montauk Pt.
                     Post
                                        B1/3 S1/3(216)Ditch Plain
                                 ES
                                                                        13A-1B
                       Obs
                                 HS
                                       B1/3 S1/3(216)Ditch Plain
                                                                        13A-1B
                      Rdr
                                 HS
                                       :31/3 S1/8(216)Ditch Plain
                                                                        :13A-1B
                      Sptr
                                       B2/3 S2/3(216) Montauk Pt. B2/3 S2/3(216) Montauk Pt.
                      Obs
                                  HS
                                                                          16-1G
                     Rdr
                                  ES
                                                                          16-1G
                                                                        1 16-1¢
                t
                     Sptr
                                       B2/3 S2/3(216) Montauk Pt.
                                  HS
                                        B3/3 S3/3(216) Montauk Pt.
                      Obs
                                                                          16-2C
                                       B3/3 S3/3(216) Montauk Pt.
B3/3 S3/3(216) Montauk Pt.
B4/3 S4/3(216) Hill 90
                     Rdr
                                                                          16-2C
                                                                        1 16-2¢
                      Sptr
                      3dO
                                                                          24A-1G
                                        B4/3 S4/3(216) Hill 90
                      Rdr
                                                                          24A-1G
                                       B4/3 S4/3(216) Hill 90
                                                                        24A-EG
                      Sptr
                                        B5/3 S5/3(216) Watch Hill Pt. 27-2A
B5/3 S5/3(216) Watch Hill Pt. 27-2A
                      Obs
                      Rdr
                                        B5/3 S5/3(216) Watch Hill Pt. 27-2k
                      Sptr
                                        B6/3 S6/3(216) South West
                                                                          60-2-2A
                      Obs
                                        B6/3 S6/3(216) South West
B6/3 S6/3(216) South West
                                                                          AS-S-09
                      Rdr
                                                                        1 60-2-2A
                      Sptr
Site 2-A
                                        PR 1
B 5/1 8 5/1
                                                 (112) Montauk Pt.
(112) Montauk Pt.
                      Obs
                                  BS
                                                                          16-1R
                                                                          16-1B
(Constr. 112)
                      Rdr
                                  BS
                                         PR 1
                                                  (112)
                                                                          16-1B
                      Sptr
                                  ES
                                        PR 1
                                                        Montauk Pt.
                                                       Montauk Pt.
                                                                        16-1E
                                                  (112)
                      TI
                                        PR 1
                      Post
                                 Wall
                                        PSB #1
                                                         Montauk Pt.
                                                                          16-10
```

HS-Head Set, TS-Hand Set, EES-Field Telephone, TI-Time Interval Bell.

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Exhibit 11-B. Page 6 of 30 pages

Basic Information for Construction of FIRE CONTROL AND COMMUNICATION DIAGRAMS

Designation Purpose Type Termination of each circuit Of Of Of Installation Place Loc. Check Installation Telephone Phone
Location 16 Montauk Pt., L. I., N. Y. (Cont'd.)
Site 2-B B 5/2 S 5/2 : Obs : ES &R 2 (113) : Montauk Pt. : 16-1D (Cons tr. 113) Rdr ES PR 2 (115) Montauk Pt. 16-1D Sptr ES PR 2 (115) Montauk Pt. 16-1D Sptr ES PR 2 (115) Montauk Pt. 16-1D Site 2-C B 5/10 S 5/10 Obs ES PR 10 (111) Wilderness Pt. 23A-1A (Constr. 111) Rdr ES PR 10 (111) Wilderness Pt. 23A-1A Sptr ES PR 10 (111) Wilderness Pt. 23A-1A TI PR 10 (111) Wilderness Pt. 23A-1A
B 3/2 S 3/2 : Obs : BS ER 2 (113) : Montauk Pt. : 16-1D (Cons tr. 113) Rdr BS PR 2 (113) Montauk Pt. 16-1D Sptr BS PR 2 (113) Montauk Pt. 16-1D (111) :
Constr. 113 Rdr
Constr. 113 Rdr
Sptr
Site 2-C B 5/10 S 5/10 Obs BS PR 10 (111) Wilderness Pt. 23A-1A (Constr. 111) Rdr ES PR 10 (111) Wilderness Pt. 23A-1A Sptr ES PR 10 (111) Wilderness Pt. 23A-1A TI PR 10 (111) Wilderness Pt. 23A-1A
B 5/10 S 5/10 Obs HS PR 10 (111) Wilderness Pt. 23A-1A (Constr. 111) Rdr ES PR 10 (111) Wilderness Pt. 23A-1A Sptr ES PR 10 (111) Wilderness Pt. 23A-1A TI PR 10 (111) Wilderness Pt. 23A-1A
(Constr. 111) Rdr ES PR 10 (111) Wilderness Pt. 23A-lA Sptr ES PR 10 (111) Wilderness Pt. 23A-lA TI PR 10 (111) Wilderness Pt. 23A-lA
(Constr. 111) Rdr ES PR 10 (111) Wilderness Pt. 23A-lA Sptr ES PR 10 (111) Wilderness Pt. 23A-lA TI PR 10 (111) Wilderness Pt. 23A-lA
TI PR 10 (111) Wilderness Pt. 23A-1A
TI — PR 10 (111) Wilderness Pt. 25A-lA
B 4/12 S 4/12 Obs BS PR 12 (114) Watch Hill 28-10
(Constr. 114) Rdr HS PR 12 (114) Watch Hill 28-10
Sptr HS PR 12 (114) Watch Hill 28-10
TI 'PR 12 (114) Watch Hill '28-1C'
B 5/3 S 5/3 Obs ES FR 3 (216) Montauk Pt. 16-16
(Constr. 216) Rdr ES PR 3 (216) Nontauk Pt. 16-16 Sptr ES PR 3 (216) Nontauk Pt. 16-16
Sptr BS PR 3 (216) Montauk Pt. 16-16
TI PR 3 (216) Montauk Pt. 16-16
37mm OP 5/1 Int EE-8 37mm BC 1 Ditch Plain 13A-1A
Site z-p
37mm Sec 4/1 Int 2 EE-8 37mm BC 1 Ditch Plain 13A-1A
SC S/L #5 P Order EE-8 SC S/L CP 1 Montauk Pt. 16-10
Order EE-8 Controller Local '
Order 2 EE-8 PP Local SC S/L #6 P Order EE-8 SC S/L CP 1 Montauk Pt. 16-1C
Order EE-8 Controller Local Order 2 EE-8 PP Local
Location 17 Whale Hill, Gardiner's Island, N. Y.
Site 1-A
AA S/L #IP Order 2 EE-8 AA S/L CP 1 Ft. Terry 19-10 Order 2 EE-8 PP Local
Site 1-B B 1/5 S 1/5 Obs PS PR 5 (217) Ft. Terry 19-17
(Constr. 217) Rdr HS PR 5 (217) Ft. Terry 19-1V
Sptr ES PR 5 (217) Ft. Terry 19-1V
TI PR 5 (217) Ft. Terry 19-1V
B 5/12 S 5/12 Obs BS PR 12 (114) Watch Hill 28-10
Constr. 114) Rdr HS PR 12 (114) Watch Hill 28-10
Sptr HS PR 12 (114) Watch Hill 28-10
TI — PR 12 (114) Watch Hill 28-10
AAOP 3/1 Int EE-8 AABC 1 Ft. Michie 20-1E
BDOP #6 Int BDCP Montauk Pt. 16-10
Site 2-B
SC S/L #7 P Order EE-8 SC S/L CP 1 Montauk Pt. 16-1C
Order EE-8 Controller Local
Order 2 EE-8 PF Local ————
SC S/L #8 P Order EE-8 SC S/L CP 1 Montauk Pt. 16-10:
Order EE-8 Controller Local
Order 2 EE-8 PP Local

HS-Head Set, TS-Hand Set, EE8-Field Telephone, TI-Time Interval Bell.

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Exhibit11-B . Page 7 of 30 pages

Form 23. Annex C

H. D. of L. I. S.

SHELTER FOR SEARCHLIGHTS

(Harbor defense and antiaircraft lights other than at tactical positions.)

Pri- ority No.	f : Item No.: Type of Construction	Place	:Loca-: :tion : :No. :	Space : Procure- ment
4	Corrugated asbestos type Shelter for storage of 8 S/L, portable complete	Montauk Pt. L. I.	16	8 None

NOTE: * If no additional land is required enter "NONE"

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Exhibit 3-C, Page 1 of 1 page

H. D. of L. I. S.

Cost Estimate and Priority Guide for SEARCHLIGHTS

ity No inc	• : Description of Project :	(Itemized)	Signal: Or	d. Engineer
	Location No. 16 (Wontauk Po	int):		
4	S/L No. 5P			
	Engineer: 1 Portable S/L W/PH & C. Station 1 35' S/L Tower(Demount.)	\$21,000.00 2,000.00		\$23,000.
	Signal:	110.00		
	4 Tel. EE-8 4 H & C Set ES-17A	118.80 100.00		
	1 File Field Wire W-110	37.00	\$255 . 80	
4	S/L No. 6P Engineer: 1 Portable S/L W/PH &			
	C. Station	21,000.00		27 000
	1 35' S/L Tower(Demount.) Signal:	2,000.00		23,000.
	4 Tel. EE-8	118.80		
	4 H & C Set HS-17A 1 Mile Field Wire W-110	100.00 37.00	255 •80	
		7/100	2)),	
4	S/L CP #1 Signal:			
	13 Tel. Box EE-91	390.00		
	11 H & C Set HS-17A	275.00		
	2 Hand Sets TS-12A 1 Tel. Wall	24.00 20.∞		
	1 S/B BD-105	230.00	939.00	
	Location No. 17 (Whale Hill	<u>l);</u>		
4	S/L No. 7P			•
	Engineer:			
•	1 Portable S/L W/PH & C. Station	21,000.00		21,000.
	Signel:	22,000.00		22,0000
	4 Tel. EE=8	118.80		
	4 H & C Set HS-17A	100.00		
	1 Mile Field Wire W-110	37.00	255.80	
4	s/L No. 8P			
,	Engineer: 1 Portable S/L W/PH & C. Station	21,000.00		21,000.
	Signal:			
	4 Tel. EE-8	118.80		
	4 H & C Set HS 17A	100,00		

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Exhibit /-C. Page 2 of 5 meses

HARBOR DEFENSES OF LONG ISLAND SOUND

EXHIBIT - ANNEX "D"

No Underwater Defenses in these Harbor Defenses.

 $\underline{\mathtt{S}} \ \underline{\mathtt{E}} \ \underline{\mathtt{C}} \ \underline{\mathtt{R}} \ \underline{\mathtt{E}} \ \underline{\mathtt{T}}$

ANTIAIRCRAFT AUTOMATIC WEAPONS

The authorized antiaircraft automatic weapon defense is disposed as shown in the following tabulation and the indicated exhibits.

14 .27		i . Taa - V-	1 1	:	Battles	Am Place of	unition	1 0-
iti-ili	o O I Inna	and Place	ince i	exhibit	t Ymm·. P YTT•t	Storage	f Hand	souired
~	, ui.u		V110 0 . 11	<u> </u>	. 111111111	- COTUBO		*94-1-04
57mm:	2.	: 13-B Culloden Pt	: 1-A:	3-E-3	: 7200	Montauk Pt. Reservation	:	:
37mm: :		Ditch Plair	l		• 7200 ·	er er		:
37mm :	2	15 Shagwong	2-A	3-E-5	7200	* # t	:	:
57 mm.	9	16	2~D	4.P.4	8200	**	:	:
37 mm. :	2	: Kontauk 19 West End. : Plum Is.	1-A	5-E-5	7200	Greble	:	:
	Z	19 : East End.					:	:
		Plum Is. 20 West End.	: 1-A	3-E-3	: 7200	Palmer	:	:
: 37mm :	9	East End. Ft. Michie	1-0	5-F-5	7200	Do Imar	:	:
57 mų	2	: 21 Race Poin	1-A			Barlow	:	:
37 <u>m</u>	2	26-B Avery Pt.	1-A	3-E-3	; ⁷²⁰⁰ ;	Barlow	:	:
37mm	2	25 East Point F.I.	1-C	3-E-3	: ⁷²⁰⁰ :	Barlow	:	:
37 mi	2	: 27 Watch Hill		3-E-3	: 7200 :	Watch Hill	:	:
37 mi	2	: 23-A Wilderness F	: 1-G: t.	5-E-5	7200	Barlow	:	:
:		:	· Tò	tal-	93,600		: Non	e : 93,60
:		:	: :		:	:	:	:

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Exhibit 3-E, Page 1 of 3 pages

ANTIAIRCRAPT AUTOMATIC WEAPONS

The authorized antiaircraft automatic weapon defense is disposed as shown in the following tabulation and the indicated exhibits.

8	<u> </u>	*		; ;		:Battle:		munition	
ali-:No	. 0	ſŧ	Loc. No.	:Site:		: All. :	Place of		
ber (luns		and Place	: No.s	Exhibi	ts Ammes	Storage	: Hand	squired
ocai.	4	:		1-A	1-I	:28,800	Montauk Pt. Reservation		:
* :	4	:	16 Near 113	1-E	1-I	28,800	π	:	:
* :	4	:	16 Near 216	1-G	1 - I	28,800	tr	:	:
« :	4	:	19 Plum Is.	: 1-H:	1 - I	:28,800	Greble	:	:
« :	4	:	19 Plum Is.	1-Q	1-I	28,800	Campbell	:	:
« :	4	:	20 Ft. Nichie	: 1-G	1-1	28,800	Palmer	: ,	:
u :	4	:	21 Ft. Wright	: 1-E	1 - I	28,800	Hamilton	:	:
« :	4	:	21 Ft. Wright	: 1-N	1 - I	28,800	Hamilton	:	:
u :	4	:	23 Mt.Prospec F.I.					:	:
k :	4		F.I. 23A Wilderness F.I. 28	Pi-c	1-1	28,800	Hamilton	:	:
n :	4	:	28 Near 114	1-4	1-1_	28,800	Watch Hill	:	: `
:		:		1 :	TOTAL	316,800:		:33,60	0: 283,200
:		:			:	: t		:	:
:	not	E :		t	!	: :	etter W.D., Oot. 23, 1940	;)•	:
:		:		:	:	: :		:	:
:		:		:	:	·: :		:	:

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Exhibit 3-E, Page 2 of 3 pages

H. D. of L. I. S. Cost Estimate and Priority Guide

GAS DEFINSE

Pri: i : ;			
or-:Item:Loc.:Site: ity:Ho.:No.:No.:	Place and Element	: Cost : :Itemized :	Total Cost
3 16 1-B	MONTAUK POINT		
•	P-1 (Const. #112)		
	Chemical Farfare: 4 Collective Protectors 16 Canisters, Spare	\$3,200 4,320	\$7,520(cws)
	Engineer: Installation	960	960(Eng)
3 1-A	Latrine (Const. #112)		
	Chemical Warfare: 1 Collective Protector 4 Canisters, Spare	800 1,080	1,880(CWS)
	Engineer: Installation	2140	Sito(Eng)
3 1-D	P-2 (Const. #113)		
	Chemical Marfares 4 Collective Protectors 16 Canisters, Spare	3,200 4,320	7,520(CWS)
	Engineer: Installation	960	960(Eng)
3 1- E	Latrine (Const. #113)		
	Chemical Warfare: 1 Collective Protector 4 Canisters, Spare	800 1,080	1,880(CWS)
	Engineer: Installation	5 110	240(Eng)
2 1 - G	P-3&Latrine (Const. #216)		•
	Chemical Warfare: 2 Collective Protector 8 Canisters, Spare Engineer: Installation	1,600 2,160 480	3,760(CWS) 480(Eng)
19 4 1-K	FORT TERRY FSB	400	400(1216)
	Chemical Warfare: 1 Collective Protector 4 Canisters, Spare Engineer: Installation	800 1,080 1,800	1,880(C775) 1,800(Eng)
5 1-À	P-5 & Latrine (Const. #217)		
	Chemical Warfare: 2 Collective Protector 8 Canisters, Spare Engineer: Installation	1,600 2,160	3,760(CNS)
	THE CATTECTON	480	480(Eng.)

H. D. of L. I. S.

SUBJERY OF LAND PROCUREMENT RECOMMENDED

Ref:Loc.:	·Acre-	- Fetimat o	d. Ev Pafaranaa ta Authan
Ref:Loc.: Par: No.: Furpose	: age	: Cost	:hibit: ity for procurement
: <u>EASTNA: PTON</u> 10 Fire Control Station			
: : <u>ANAGANSETT</u> 11 Fire Control Stations	:1.0	: 36,400	: 2-H-2 : Not yet approved
: : <u>HILL 100</u> 13 Fire Control Stations	1.5	: \$6,000	: 2-H-3 Not yet approved
: : <u>DITCH PLAINS</u> 13-A Fire Control Stations	:	: \$6,500	: 2-H-4 Not yet approved
: : SHACE CONG 15 Fire Control Stations			
: <u>LECHTAUK POINT</u> 16 Battery Constr. #112, 113 & 216 - Fire Con-			·
trol Stations-Reserve	:	: ,	: :
: ; ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	1.5	: \$6,550	: 2-H-6 Not yet approved
: : ::::::::::::::::::::::::::::::::::	: 2 130	\$260,000	
Stations - Reserve Lagazines	:	:	: :
: HILL 90 24-A Fire Control Stations	4.0	\$6,500	
: : PINE ISLAND 26-A Fire Control Station			
Dima Control Stations		A	: : 1-1-23 Approved, Ref. #10
: & Hagazine	:	:	: :
TOTAL		\$640,850	
Cost of land for new battery construction.		600,000	(Annex A, Exhibit 10-A-3)
Net cost of land for fire control construc	tion.	\$ 40,850	(Total for Annex II)
	Charle	stown, Gre	ons located at Watch Hill sen Hill and Block Island agansett Bay Project.

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Exhibit 1-H, Page 1 of 1 page.

	H. D. of L. I. S.
	Location No. 16
	PRELIMINARY DATA FOR PROPOSED LAND ACQUIREMENT
1.	For installation of Fire Control and Observing Stations
	Battery Construction #112,#113 and #216.
2.	Place (Local Name) Kontauk Pt.
	Town East Hampton County Suffolk State New York
3•	Owner: Name Reservation to be acquired by the U. S. Govet.
	Addross (See Ref. #2)
4.	Area to be acquired 470 Acres
5•	Site is: Developed I Undeveloped
6.	Site is part of: Farm Summor estate
7.	Active shore lot development X Inactive
8.	Does site include buildings Yes No. & Type
9•	Is site contiguous to public road Yes
10.	Is easement required for right of way No Length
11.	Is casement required for cable Yes Length
12.	Assessed value of land \$ Buildings \$
	If no land, casement, or right-of-way is required, state, "none required" in appropriate space below.
13.	Estimated purchase cost of land and buildings \$ See Ref. #2
щ.	Estimated cost of right-of-way \$

SECRET

15.

16.

17.

18.

19.

20.

Estimated sost of cable casement

Estimated cost of taking surveys

Estimated cost of legal transfer

REMARKS: (Refer to numbered items)___

Total estimated cost of site

Estimated cost removal of utilities

Exhibit 3-H, Page 6 of 13 pages

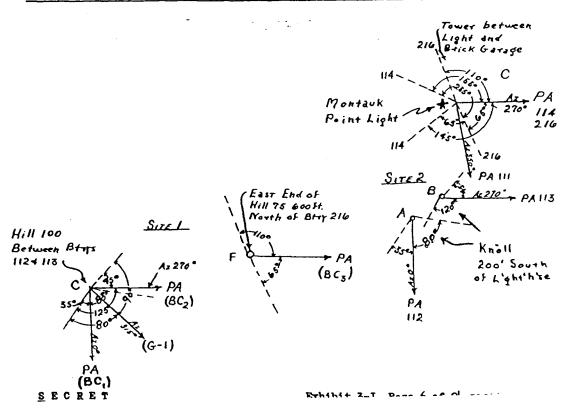
\$ 270,000.

Do you believe condemnation proceedings necessary?

H. D. of L. I. S.

FIRE CONTROL INSTALLATIONS

1		:	: Designation of	: Height	
Site: Type	1	Station	: Battery and	: of	
No.:	:Floor	Assignments	: Armament	i Inst.	A Type.
1-C 2 story cottage	Upper	G-1	Group 1	1201	A.I.
:	Lower(₩ BCl	Const. #112 2-1	6 4: 1121	A.I
	lower(E) BCS	Const. #113 2-16	1121	A(I.
i	1	1	t	1	
L-F 2 story cottage	Roof	OP	AA MG & Beach De	f. 100¹	
* •	Upper	BC3	Const. #216 2-6"	1 901	AI.
	Lower (R) Metro. & Si	ig.	821	
:	Lower (LA) BC1	AA MG BTRy.1	1 821	
2-A : Manhole	1 One	1B 5/1 S 5/1	Const. #112 2-16"	‡ 60¹	A.I.
2-B : Kanhole	1 One	1 B 3/2 S 3/2	Const. #113 2-16"	1 601	D.P.F.
3-C 3-deck steel to	wer	1	.	1	
(241 ground to					
of lowest stat		1	1	ŧ	
	Roof	OP 5/1	37 mm.	1251	
•	*Upper	1B 4/12 S 4/3	12: Const. #114 2-1	641 1161	D.P.F
				6" 1081	D.P.F
:	Lover	B 3/8 S 3/,	3 *Const. #216 2-6	# : 100°	D.P.F
•	1	•	:	1	



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SUPPLEMENT

Auth:
Initials
Date

MAR 7 1945

HARBOR DEFENSES

. **. . OF**

LONG ISLAND SOUND

- 1. This Supplement consists of two REGISTERED DOCUMENTS

 (Par. 2t, AR 380-5); one consisting of eight (8) Annexes
 and the second of six (6) Appendices.
- 2. The SHORT TITLE of these Annexes is HDLIS-AN-45, and that of the Appendices is HDLIS-AP-45, (Par. 2<u>v</u>, AR 380-5).
- 3. These documents will be accounted for on 30 June and 31

 December of each year to Headquarters, Harbor Defenses of

 Long Island Sound, Fort H. G. Wright, New York (Par. 37,

 AR 380-5).
- 4. Prompt report will be submitted when these documents are transferred from one person to another (Par. 38, AR 380-5).
- 5. These documents supersede the document with SHORT TITLE as follows: CCA-AN-LIS.

2명·중관 2:1

c. The following is a list of the armament in the order of tactical importance:

Relative Importance	At the Committee
1	ANTE #3
2	AUTB. #2
3	ANTE #1
4	Btry Cons #215
5	ANTE #5
6	Btry Cons #216
7	Btry Dunn
8	Btry Cons #112
9	Btry Cons #217
10	Btry Cons #214
11	Btry Cons #111
12	Btry Maitland
13	Btry Benjamin
14	AMTE #4
15	ANTE #6
16	Bary Hoppock 90 m. m. Bety authorized
17	North-Hill Biry
18	for planity
19 20	Brog Delliber 90 m.m. Bty authorized for planning. Brog Hottman 90 m.m. Bty authorized for planning
21	
	-

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6. WAR RESERVE AND BATTLE ALLOWANCES OF AMMUNITION

- a. The tabulation, on the next two pages, shows the allowances of ammunition with reference to the authority by which the allowances were established. It is believed that modern air defense will limit the duration, and frequency of bombardment of shore installations by hostile naval vessels, thus affording opportunity to replenish ammunition supplies from reserves or localities not exposed to the attack. The battle allowance is stored in the battery magazines in all cases. The remainder of the total War Reserve remains under control of the Chief of Ordnance in such Central Depot Storage as that office may designate.
- b. (1) All explosives in the Harbor Defenses of Long Island Sound are stored in compliance with the pertinent regulations (TM 9-1900).
- (2) Ammunition for Batteries Dunn, Cons 112, and Cons 216 should be shipped via the Long Island R. R. to Montauk, N. Y.

		RETAINED P	ROJECT BATT	ERIES OF	THE MODE	RNIZAT	ION PROGR	AM
TAC NO.	LOC NO.	NAME OR CONS NO.	LOCATION	NO.& CAL. OF CUNS	MODE:	L MOUNT	COMPLE-	EXHIBIT NO. OF FIELD OF FIRE
1	16	112	Camp Hero	2-16"	Navy MkIINI		Complete	6-B-1
2	16	Dunn .	Camp Hero	2-16*	Navy MkIIVI	¥ 4	Complete	6-B-2
3	16		Camp Here		1903A2	М	Complete	6-B-3
4	19	90 mm Dalliba	Pt Torry	2-3	1903	ر 1903	Complete	6-B-4
5	19	. 1	Ft-Terry		M		ndefinite	6-B-5
6	20	Maitland	-Ft Michie	2-6"	1900		Complete	6-B-6
7	20	Benjamin,	.Ft Michie.	2-6"				6-B-7
8	21		Ft Wright			M T	Complete	
9	21	Hoffman	Ft Wright	2-3"	3902VI	-1902	Complete	6-B-9
10	21	Hoppeck	Ft Vright	2-3"	1903	1903	Complete	6-B-10
11	22	North III	Fishers Island	2-3*	1903	1903	Complete	6-B-11
12	23A	111	Fishers Island	2-16*	Navy MkIIVI	144 145	* '	6-B-12
13	23A	214	Fishers Island	2-6"	M	¥ 4	Indefinit	e 6-B-13

^{*} Work on this battery was suspended pursuant to Memorandum, War Department, General Staff, WDGDS 8074, 20 November 1943, subject: "Curtailment of Seacoast Battery Program". Engineer work on the emplacement and magazines had been completed. The guns and carriages are stored unmounted in the emplacement and magazines. Cost estimates for completion are included in the Appendices.

BATTERY OR CONSTRUCTION NO.	NO. OF GUNS	CALIBER AND TYPE	TYPE PROJ.	WAR RESERVE	BATTLE
112	2	16"-Navy WkII W1	2240#	300	200
Dunn (113)	2	16"-Navy KkII Kl	2240#	300	200
216	2	6"-1903A2	HE-90# AP-105#	300 400	200 300
D alliba	2	3"-1903	HS	600	400
217	2	6 "-M	HE-90# AP-105#	300 400	200 300
Maitland	2	6*-1900	HE-90# AP-108#	300 900	200 600
Benjamin	2	6*-1900	HE-90# AP-108#	300 900	20 0 600
215	2	6"-1903A2	HE-90# AP-105#	300 400	200 300
Hoffmen-	v _i , re 1:	3"-1902VI	HE	600	400
Hoppock	, 2	3*-1903	HE	600	400
North Kill	2	3"-1903	105	600	400
111	, 2 .,	16"-Navy NkII VI	2240#	300	200
214	2	6" YO	HE-90# AP-105#	300 400	200 300

Authority for above: Letter, War Department, AGO, file AG 471 (28 Jan 44) OB-S-D, 11 February 1944, subject: "War Reserve Ammunition, Seacoast Artillery."

AMTB Batteries

Ammunition allowances for 90mm and 37mm AMTB weapons are revised and published at frequent intervals in current War Department directives, (letter AGO, AG471 (9 June 44) OB-S-DM, 10 June 1944, subject: "Day of Supply for Ammunition"). The latest directive is letter, Hq., Eastern Defense Command, file Ord 471/711, 10 August 1944, subject: "Combat Levels of Ammunition for Ground Units of the EDC in the Continental United States."

All ammunition is stored in compliance with the provisions of TM 9-1900.

GOVERNMENT OWNED AND LEASED LAND

	LOC NO.	SITE NO.	NAME	ACRES	ACQUIRED	PURPOSE	REF NO.	PAGE NO.
-	10	1.4	East Hampton	2.9	7/17/43	FC Station	2	19
-	11	1.4	Amaganaett	0.92	3/1/43	FC Station	3	19
	13		Hither Hills	1.72	5/1/43	FC Station	4	19
	13A	34	Ditch Plain	3.440	7/6/43	FC Station	5	19
_	13Å	1.4	Ditch Plain	1.377	8/21/42	FC Station	6	19
_	14	-	Prospect Hill	2.35		Radar	7	19
	15	1.4	Shagwong	.83	5/1/43	FC Station	8	19
	16	1	Camp Hero 4	68.68	1/13/42	Military Reservation	19	20
	16	2	Montauk Point	5.12	10/22/36	FC Station	10	20
	16	2	Montauk Point	3.88	10/17/42	FC Station	11	20
	17		Gardiners Island	1.65	4/21/43	FC Station	12	20
	 .		Orient Pt., L.I.	.08	2/9/43	Power Cable	13	20
	19		Ft. Terry, N. Y.	193.	2/24/97	Military Reservation	14	20
				647.	6/24/01	11 ±		
	20	-	Ft. Michie, N.Y.	17.	9/18/96	Military Reservation	15	20
	21		Ft. HiG.Wright	226	8/8/98	Wilitary Reservation	16	20
	& 23		(Incl Mt Prospect	.)4.20	4/14/08	Wilitary Reservation	17	21
				69.30	4/18/08		18	21
				6.61	8/7/09	н н	19	21
				0.33	6/13/08	44 94	20	21
			,	1.10	6/15/17	Cable R/W	21	20
			les	s 1.29	9/18/29	Military Reservation	22	21
			-	10.3	4/17/37	n .	23	21
				0.2	11/17/42	n w	24	21
				2.5	3/25/42	u •	25	21
	22		North Hill	18.37	4/6/18		26	21

9.

CAMP HERO, N. Y.

Approved proceedings of a Board of Officers convened 21 October 1940, dated 9 November 1940, and let to 7th Indorsements thereto (Secret). Land is purchased and possession under petition available 13 January 1942. Sixteen tracts of land were involved in this purchase.

MONTAUK POINT, L. I., N. Y.

- Request by Secretary of War, 27 August 1936; and in pursuance to authority contained in Act approved 27 August 1937, Pub. No. 351, 74th Congress, (49 Stat. 885, U. S. C. Tit. 40, Sec. 304a) two of the three parcels at Montauk Point, previously under the control of the Department of Commerce, were assigned to the War Department by the Director of Procurement, Treasury Department by letter dated 22 September 1936. The retained parcel is the one on which the Lighthouse is located. The three parcels were acquired by the Government in 1796
- Guard, file CG-RE-815, dated 17 October 1942, and 9th Indersement from Vice Chief of Mayal Operations, file OP-30B10-VI (SC) NL-13/NU3 Doc 64261, Serial 0279130, to basic letter Hq. New England Sector, dated 18 July 1942, file 601, subjects "Land for Fire Control Structures at Montauk Point, N. Y.," gave approval for building tower in front of Montauk Lighthouse (on the third parcel mentioned above).

WHALE HILL, GARDINERS ISLAND, N. Y.

12. Letter from Chief of Engineers, CR 601.53, (Gardiners Island, HDLIS, R. Y.) SPEIR, dated 25 April 1943. Lease also includes 0.506 acres for cable R/W and 2.26 acres for access road R/W. An additional 2.1 acres in the vicinity of the fire control station has been leased for housing.

ORIENT POINT LONG ISLAND, N. Y.

13. 2nd Indorsement by Secretary of War, dated 9 June 1942, file 601.1, to basic letter from Chief of Engineers, Subject: "Acquisition of Land, Orient Point, Long Island, N. Y." Land is purchased.

FORT TERRY, N. Y.

14. The records on this purchase are in the Office of the Judge Advocate General. The fort was named by War Department General Order No. 134, 1899.

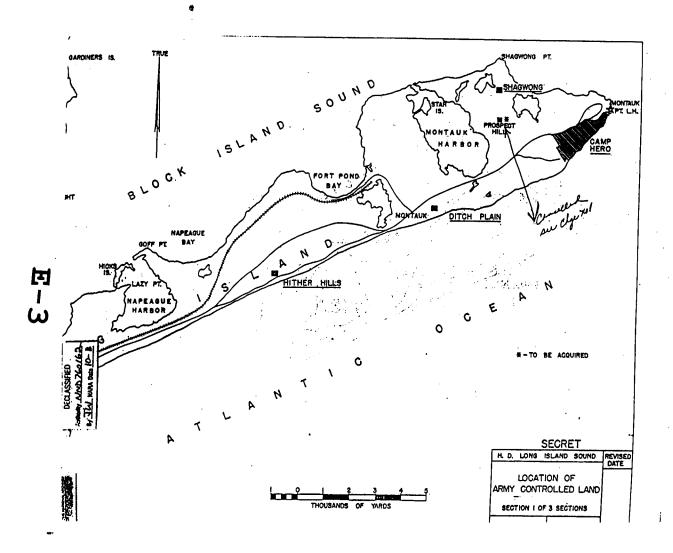
FORT MICHIE, N. Y.

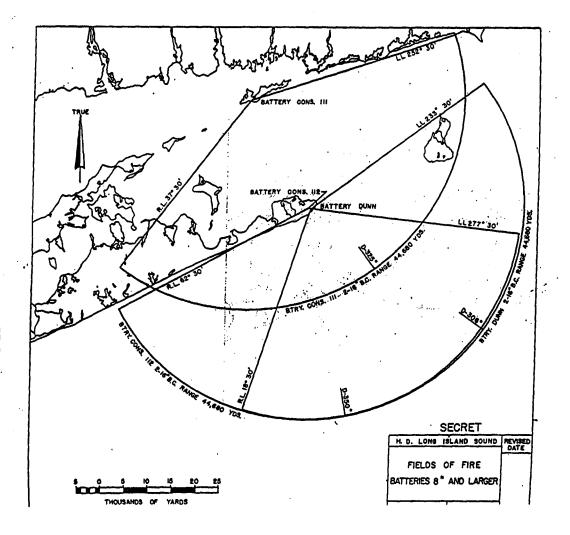
15. Request from Secretary of War to Treasury Department, dated 15 September 1896. Originally purchased by Treasury Department in 1803.

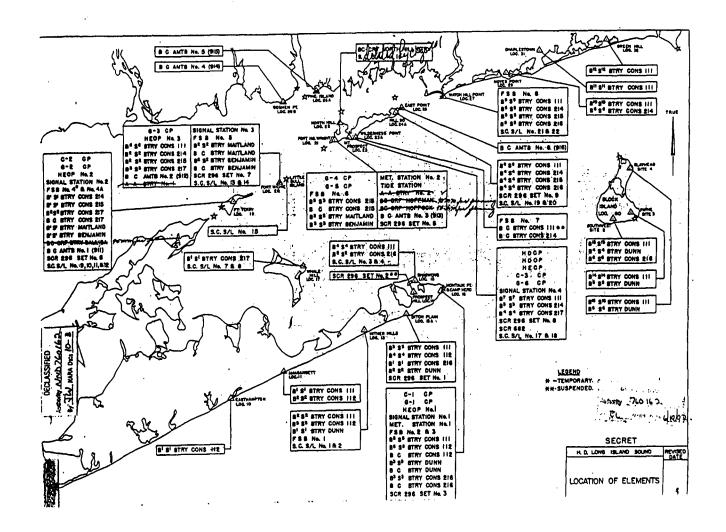
FORT H. G. WRIGHT, N. Y. (including MOUNT PROSPECT).

(All land at Fort Wright, except cable right of ways are government owned.)

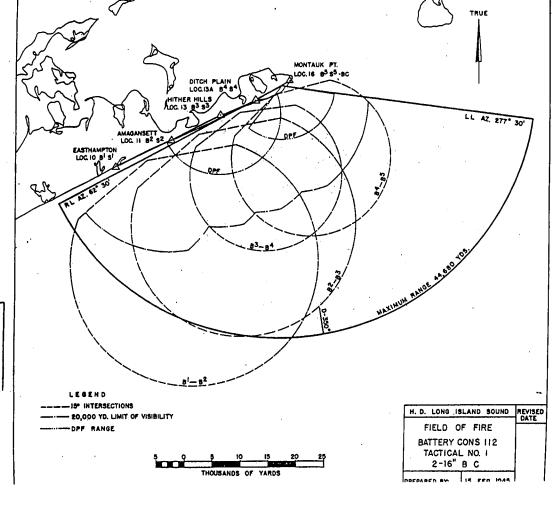
16. Decree of condemnation requested by Secretary of War vereus Edmund K. Ferguson.







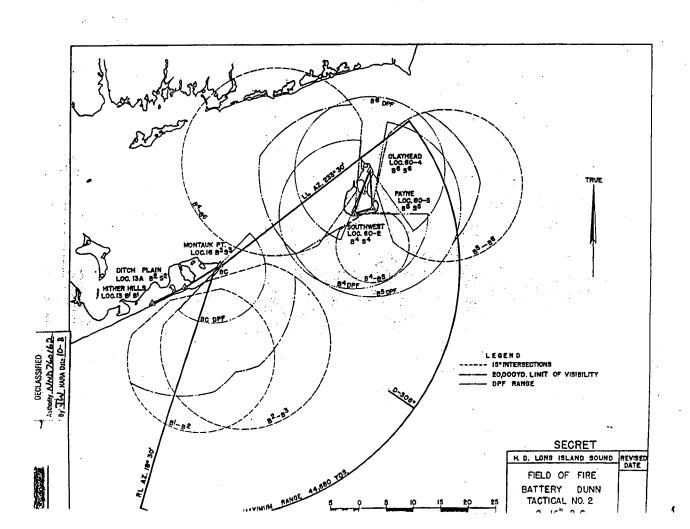
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1			BATTERY #1 (Co	ns 112) Camp Hero, N	.Y.
	15	1A	D P - Gun #1	63649.99	48131.67
	16	1C	вс	64090.06	48158.22
	10	1.4	Bl Bl	33797.84	33524.96
	11	1A	B2 82	43849.42	38157.75
	13	1A	B3 S3	52725.98	42431.60
	13A	SA	B4 S4	58939.60	45065.71
	16	IJ	B5 85	65010.67	48362.63
	13A	3 A	scr 296 #1	58949.57	45081.73
-				Janes de la companya	
	·		BATTERY #2 (DU	NN) Camp Hero, N.Y.	
	16	18	DP - Gun #1	64274.88	48295.07
	16	1C	вс	64094.30	48160.06
	15	18	Bl Sl	52783.77	42471.67
	18A	1A	B2 82	59083.81 59078.72	45239.04
	16	2 B	B3 S3	65600.27	49102.87
	60	2B	B4 S4	89581.43	58553.22
-	60	3C	B5 \$5	92723.91	59312.57
	60	4A -	B6 S6	92850.44	66238.74
	16	1H	SCR 296 #3	64256.53	48849.26
				AN SECTION	
		· -			·
	÷				
			·	1	
	•				
L		<u> </u>	1		

NO.	NO.] 			TYPE OF	: V.IC	-11	MEN	OF	WITH
NO.	110.				F.C. INSTR.	LL	RL		CONS.	STA.
16	10	BC	108	119'	DPF M2Al	223	43	4	Cottage	C-1 G-1 BC-1
13	· 18 ·	B1 S1	123'	138	AI M2Al	225	8	6	Cottage	B ₁₂ S ₁₂
13A	1A	B2 S2	68	85	AI M2A1	243	40	6	Cottage	
16	2B	B3 S3	72'	73'	AI M2A1	238	27	6	Manhole	
60-2	2B	B4 S4	150	166	DPF M2A1	271	185	6	Cottage	B13s13
60-3	<u>ś</u> ç	B5 85	185	201	DPF M2A1	189	62	6	Cottage	B ₁₂ S ₁₂
				2 1 E			* ". :			B9 89#
60-4	44	B6 \$6	140	1684	DPF M2A1	-:24	325	6	Cottage	B10s10#
						: :				B ₃ s ₃ #
		1 3 × 27		1, 12 1						
•										
,		in a				1				
		1992 B.								
# P	ertain	s to H	D. 1	arra	ansett Ba	y				

BASE LINE DATA FOR STATIONS LISTED ABOVE

FROM	то	AZIMUTH	LENGTH	•	FROM	то	AZIMUTH	LENGTH
B1	B2	246.27	6,876.39					
B2	в3	239 • 35	7,580.22					•
B4	B5_	256.42	3,232.92					·
B4	в6	203.04	8,351.86					
B5	в6	181.05	6.927.33				1	
						-		

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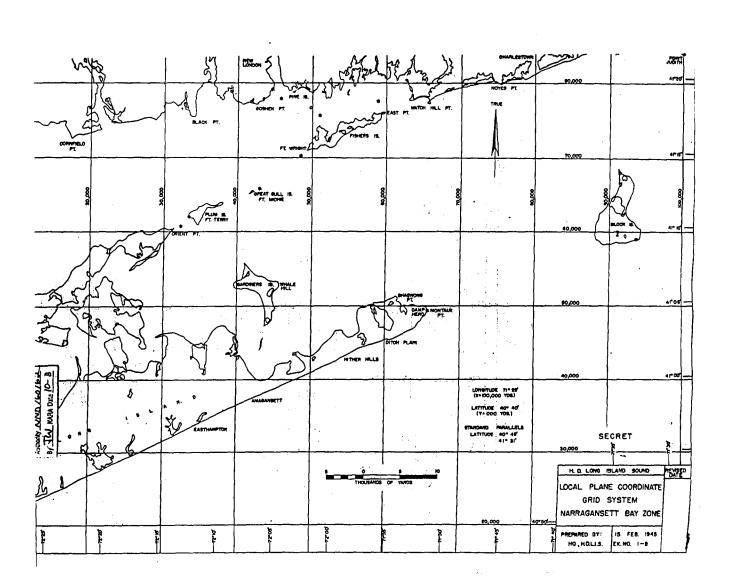
		BATTERY #3 (Co	18 216), Camp Hero,	N.Y.
16	10	D P - Gun #1	65233.56	48551.79
16	1F	вс	65206-41	48579.00
13A	3A	B1 S1	58944.52	45069116
15	1A	B2 S2	61490.98	49801.94
16	2C	B3 83	65627.96	49158.41
24A	1G	B4 84	58709.97	\$5182.81
27	2A	B5 S5	65582.80	77423.62
60	2A	B6 S6	89211.44	58417.98
16	.11	8CR 296 #4	64614.55	48851.62
		BATTERY #4 (De.	MM far planning Hiba), Fort Terry,	N.Y.
19	10	DP - No. 1 Gun	37618.87	63580.79
19	10	BC-CFF	37683.90	63646.75
	-	BATTERY #5 (Con	s 217), Fort Terry	N.Y.
	3.77	D P - Gun #1	55405 50	·
19	17	DF = Gun #-1	37621.78	63719.60
19	17	B C	37621.78 37588.63	63719.60 63746.61
19	ıv	ВС	37588.63	63746.61
19 177	1V 1B	B C B1 S1	37 588 . 63 444 38 . 56	63746.61 52882.23
19 177 19	1V 1B 1S	B C B1 S1 B2 S2	37588.63 44438.56 37508.86	63746.61 52882.23 63721.22
19 177 19 20	1V 1B 1S 1E	B C B1 S1 B2 S2 B3 S3	37588.63 44438.56 37508.86 41628.89	63746.61 52882.23 63721.22 65184.29
19 177 19 20 23	1V 1B 1S 1E 1I	B C B1 S1 B2 S2 B3 S3 B4 S4	37588.63 44438.56 37508.86 41628.89 51730.73	63746.61 52882.23 63721.22 65184.29 71658.88
19 177 19 20 23	1V 1B 1S 1E 1I	B C B1 S1 B2 S2 B3 S3 B4 S4	37588.63 44438.56 37508.86 41628.89 51730.73	63746.61 52882.23 63721.22 65184.29 71658.88
19 177 19 20 23	1V 1B 1S 1E 1I	B C B1 S1 B2 S2 B3 S3 B4 S4	37588.63 44438.56 37508.86 41628.89 51730.73	63746.61 52882.23 63721.22 65184.29 71658.88
19 177 19 20 23	1V 1B 1S 1E 1I	B C B1 S1 B2 S2 B3 S3 B4 S4	37588.63 44438.56 37508.86 41628.89 51730.73	63746.61 52882.23 63721.22 65184.29 71658.88
19 177 19 20 23	1V 1B 1S 1E 1I	B C B1 S1 B2 S2 B3 S3 B4 S4	37588.63 44438.56 37508.86 41628.89 51730.73	63746.61 52882.23 63721.22 65184.29 71658.88

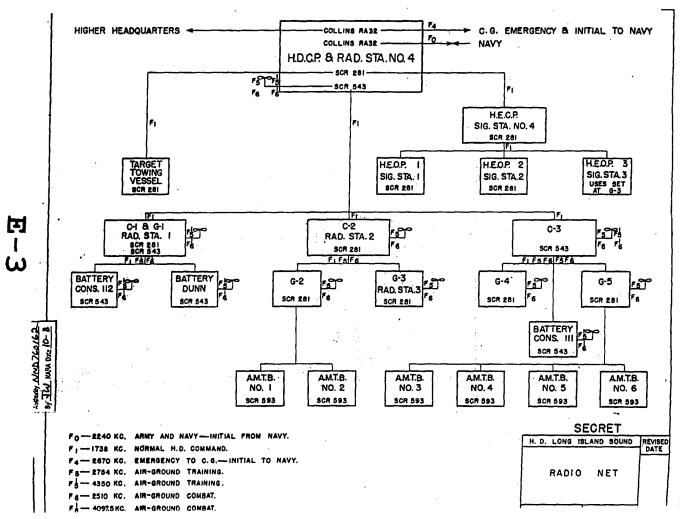
NO.	NO.				F.C. INSTR.	ĽĽ	RL	MEN	OF CONS.	WITH STA.
23A	1E	BC	541	601	HF M1 or M2*	240	60	4	Cottage	
19	1GG	B1 S1	93'	961	1	245	30	6	Manhole	
20	1 B	B2 S2	18	341	AI M2A1	270	55	6	2 Story	B ₆ ² S ₆ ²
23	10	B3 83	801	82 f	AI M2A1	230	100	6	Manhole	
24A	18	B4 S4	721	74.1	AI M2A1	265	50	6	Manhole	
27	2A	B5 S 5	221	321	AI M2A1	250	50	6	Cottage	B ₃ S ₃
29	1A :	B6 S 6	651	1141	DPF M2A1	300	60	-6	Tower	
,		ACC X			THE STAT	CAR		: ::::::::::::::::::::::::::::::::::::		
		7.1.	THE REST	/g.T.p		10				
137.	r te je fi. Pri	32 ∂5	1 7	95.		- ;				
-	V 1/2	- 2.5	1,2	1.4	9 20 20					
#1.4	54	24 * 3 V	ay be	Belf	contained	rar	ge f	nder		
	55	213.78	,	7.23						
1 1 1		249.50) 1					
				\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \						
	:									

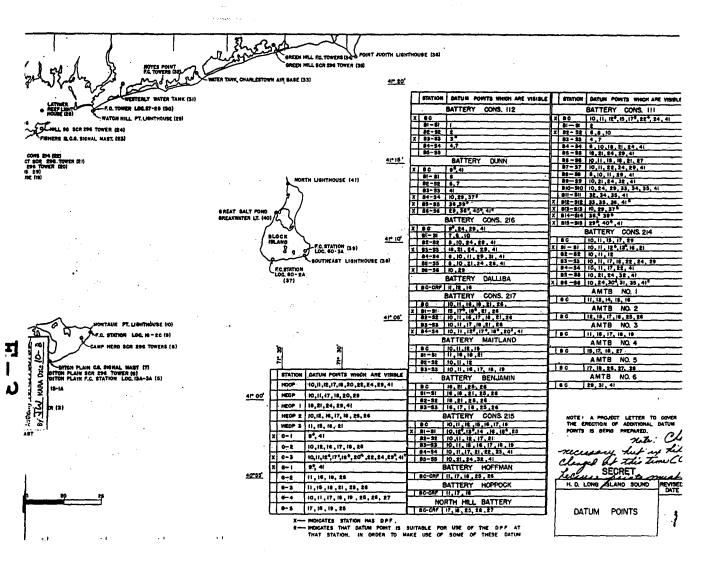
BASE LINE DATA FOR STATIONS LISTED ABOVE

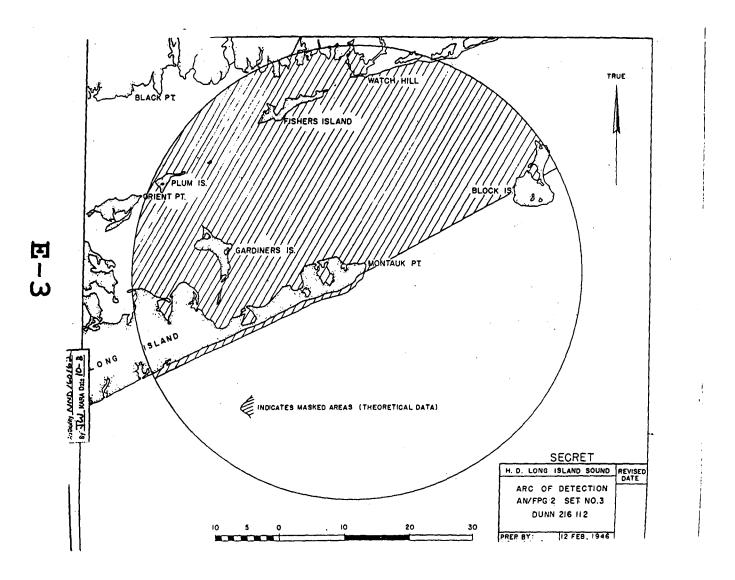
FROM	то	AZIMUTH	LENGTH		FROM	το .	AZIMUTH	LENGTH
B1	B2	252.46	7,256.82					s
B2	B3	237.65	12,235.09	- 3 ·-		•.	-	·
В3	B4	242.86	7,721.46					
B4	B5	251.78	7,272.22					
B5	ъ6	249.84	9,996.04					
		!			,			

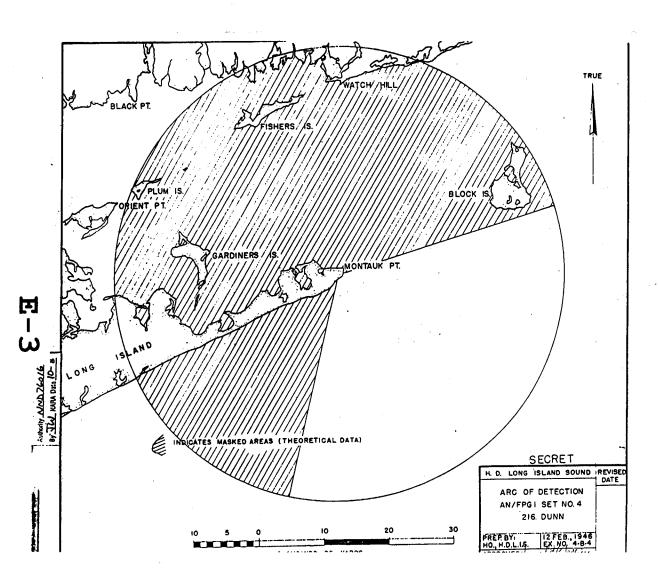
SECRET

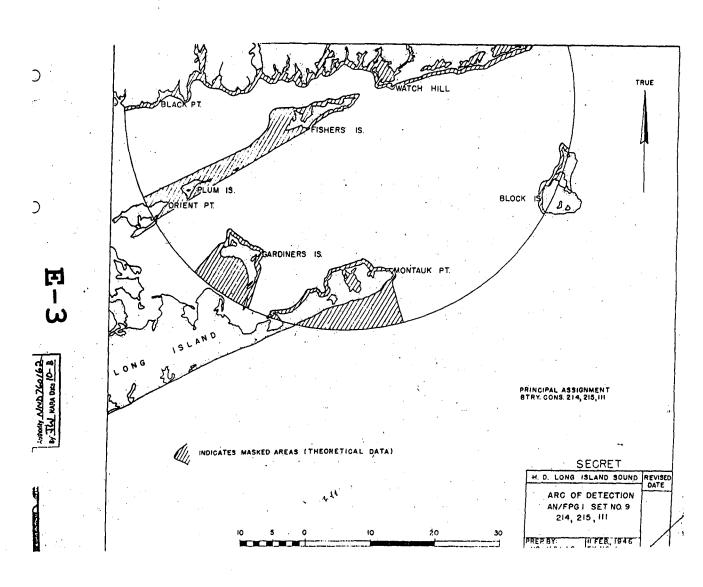


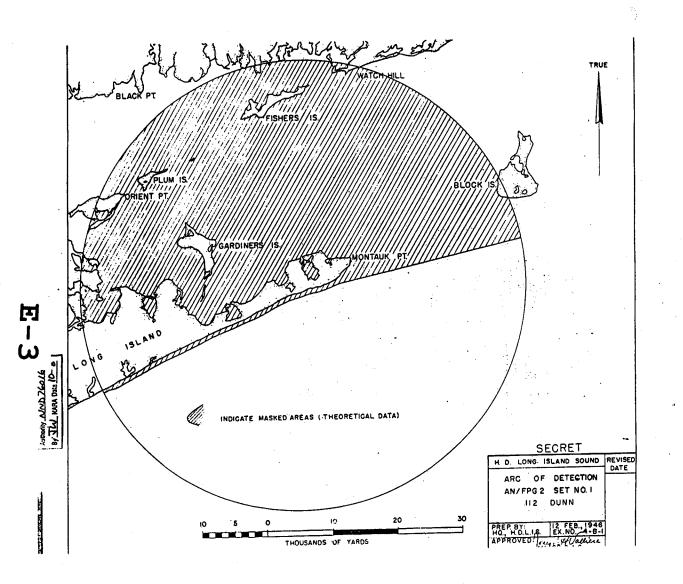


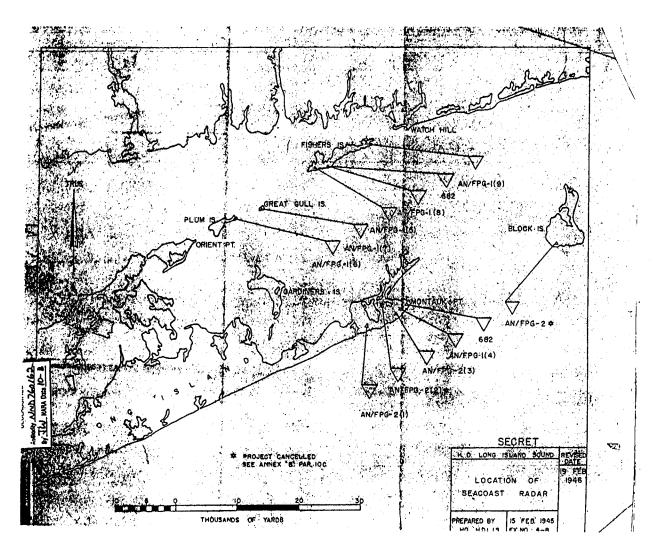


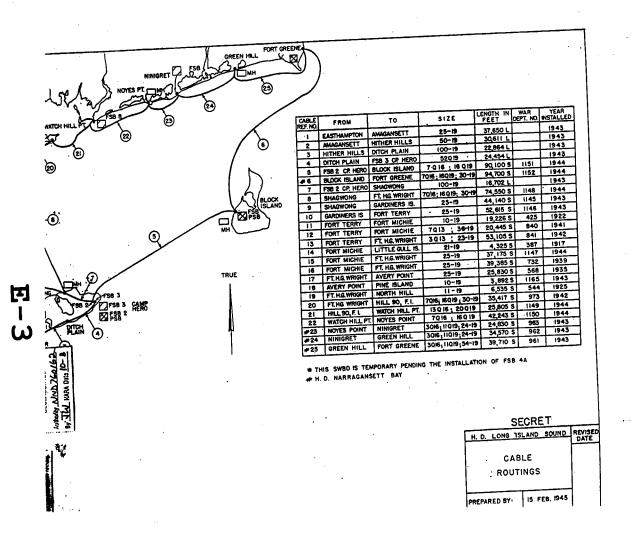


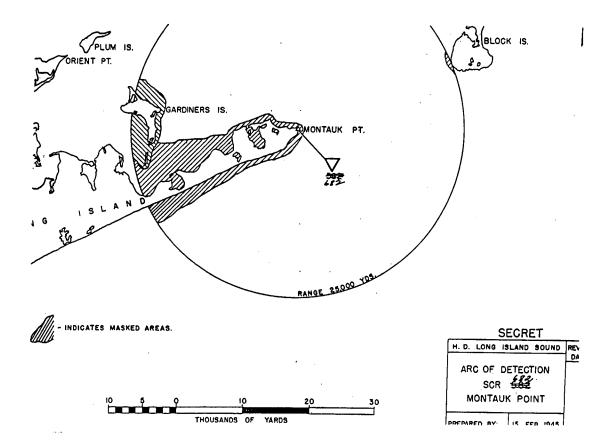


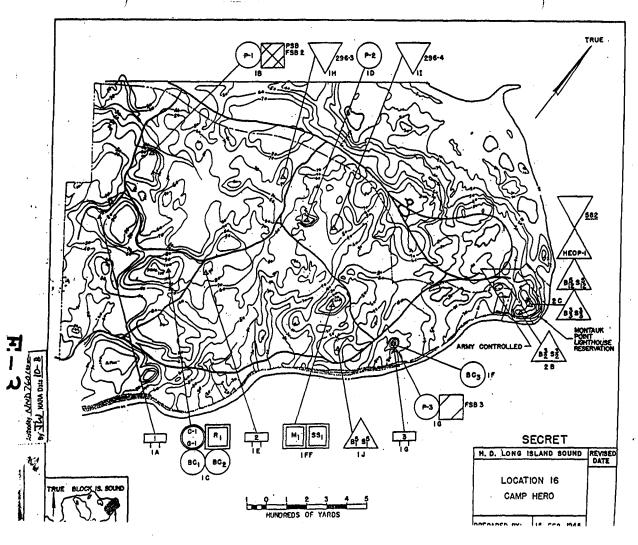


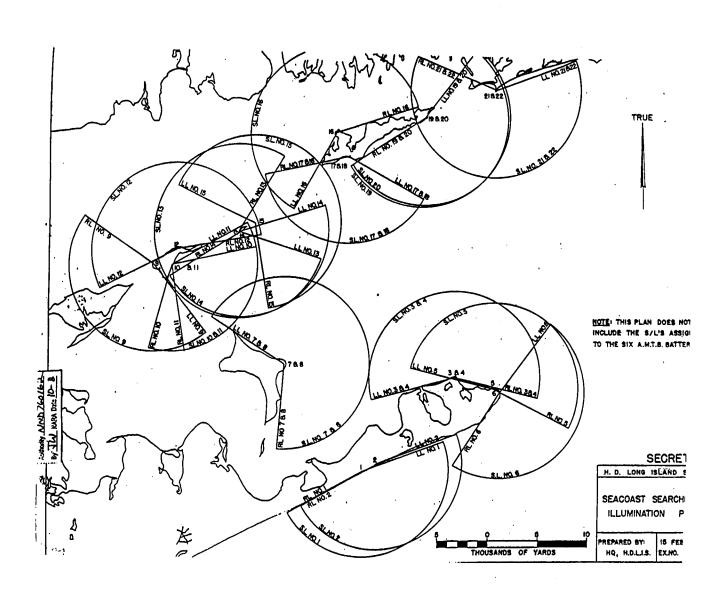












5. (Continued)

ANTIAIRCRAFT AUTOMATIC WEAPONS

Tabulation by battery, for allowance of antiaircraft automatic weapons as authorized by T/O & E 4-260-1.

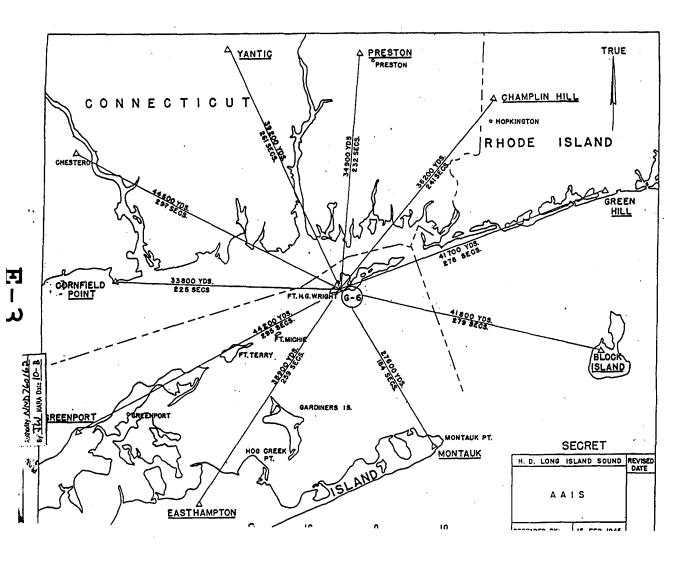
CALIBER	NO. OF				ITION
	GUNS	BATTERY	LOC.	BATTLE ALLOWANCE	STORAGE
40mm	4	Cons 111	23Å	See para-	The place of
4 Omm	4	Gons 112	16	graph lla	storage in all
40mm	4	Dunn	16	in this	cases will be at
40mm	. 2	Cons 214	23A	Annex.	the Battery to
40mm	2	Cons 215	21		which the auto-
40mm	2	Cons 216	16		matic weapons are
40mm	2	Cons 217	19		ssigned, except
40mm	2.	Maitland	20		for the rounds of
40mm	2.	Benjamin	20		ammunition actual
					ly at the guns.

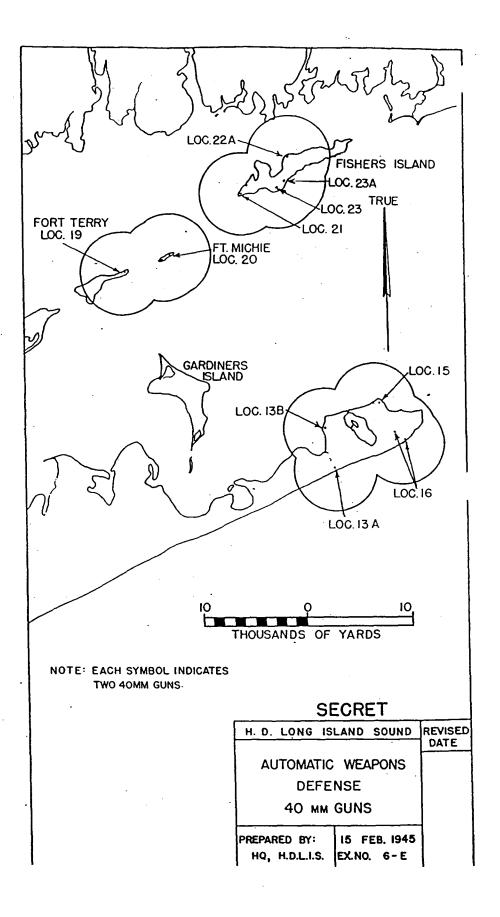
5. (Continued)

ANTIAIRCRAFT AUTOMATIC WEAPONS

Tabulation by battery, for allowance of antiaircraft automatic weapons as ...thorized by T/O & E 4-260-1.

CALIBER				AMMUNITIO	N
	GUNS	BATTERY	LOC.	BATTLE	CALUE CAL
		 		ALLUMANCE	STORAGE
-50MG	4		20	Soo para-	The place of
- 50MG		M2	2	graph-lla-	storage in all
• 50MG	4	Cons 111	23A	in this	cases will be at
.50 M G	4	Cons 112	16	Annex.	the Battery to
.50MG	4	Dunn	16	•	which the auto-
• 50MG	2	Cons 214	23A		matic weapons are
-60MG		Cons 215	21	•	assigned, except
.50MG	2	Cons 216	16		for the rounds o
.50 V G	2	Cons 217	19		ammunition actual
• 50MG	2	Maitland	20	,	ly at the guns.
.50MG	2	Benjamin	20		
•50MG	2	90 7nm Dalliba	19		
. 50MG	2	90 777 777. Hoffman	21		
. 50MG	2	90 mmm. H oppock	21		
-50MG	2	North Hill	22-		
.50MG	. 4	AMTB #1	19		
.50MG	4	AMTB #2	20		
.50MG	4	AMTB #3	21		
. 50Mg	4	AMTB #4	26D		
.50 M G	4	AMTB #5	26A		
.50¥G	4	AMTB #6	25		





E-3

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1. REQUIREMENTS

- 5

- a. This project contemplates the use of the collective protector unit M1 or later model, having a rated capacity of 200 cubic feet per minute. Three cubic feet per minute per person not physically active, and ten cubic feet for personnel of plotting rooms is required. Therefore, one unit will supply a maximum of 20 persons actively engaged or 67 persons not active. There is the further condition that one unit will supply the necessary slight positive air pressure to a room of no more than 10,000 cubic feet capacity.
- b. The basis for providing reserve cannisters is two (2) per installed cannister. One half of these reserve cannisters are carried in local storage and one half are stored by the Chief of Chemical Warfare Service, earmarked for the harbor defense. The life of a cannister is 40 hours.
- c. For personnel outside of gas-proofed rooms, reliance is placed on gas masks, protective clothing and the employment of trained squads of men using chloride of lime to neutralize mustard gas. This personnel and organizational equipment is outside the scope of this project.
- d. Attack by gas must ordinarily be carried out by airplanes since otherwise the expenditure of naval ammunition would be excessive. The fire of antiaircraft guns and machine guns will be a deterrent to effective gas attack.
- e. In this harbor defense, a strong breeze prevails much of the time and periods suited to attack with nonpersistent gas are infrequent. Attack with persistent gas is the chief concern.

- 2 -

SECRET

<u>secre</u> <u>t</u>

2							
		GAS DEFENSE OF	E BCH	BFROOF SH	ELTERS		
LOC NO.	SITE NO.	PURPOSE OF STRUCTURE	MEN	CAPACITY CU. FT.		INST. CANN.	RES. CANN.
16	1A	Latrine-Btry Cons.		2050	1	1	2
16	1B	P-1, FSB #2, and PSB	26	18000	4	4	8
16	10	P-2	22	18000	4	4	8
16	1E	Latrine-Btry Dunn		2050	1	1	2
16	1 G	P-3, Latrine-Btry Cons. 216, and FSB #3	22	5600	2	2	4
19	1X	FSB #4A, P-5, and Latrine-Btry Cons. 217	22	5600	2	2	4
20	1D	P-6	16	2000	ı	1	2.
20	1P	P-7, FSB #5 and PSB	25	15150	3	3	6
21,	18	P-9, and Latrine - Btry Cons. 215	18	5600	2	2	4
21	10	FSB #6 and PSB	10	33400	, 4	4	8
23	18	HDCP, C-3, & G-6 CF	64	19000	2	4	8
23A	10	Latrine-Btry Cons.		2050	1	1	2
23A	1A	P-12 and FSB #7	26	18000	4	4	8
23A	1F	P-13 and Latrine- Btry Cons. 214	18	5600	2	2	4
27	21	FSB #8	4	1050	1	1	2

CONSOLIDATED SUMMARY OF BATTERY INSTALLATIONS

HARBOR DEFENSES OF LONG ISLAND SOUND

1	2	3	4	5	6	7.	8	9
BATTERY W/Data Compu	OBS. STA. 901/	OTHER OBS. STA. 125'/	OBS. STA. NOT INCL. IN 2 & 5	BC STA.	SPOT- TING STA.	Maga- Zines	BATTERY POWER PLANT	SCR- 296
Cons 112	0	J	4	1*	Б	2	1	1
Dunn	2	2#	2	1*	6	2	1	1
Cons 216	2	0	4	1*	. 6	1	1	1
Cons 217	2 ·	.0	2	1	4	1	1	1
Cons 215	1	Ο,	4	.1	5	1	1	- 1
Cons 111 **	1 -	4	10	1*	15	2	1	1 .
Cons 214	2	0	4	1	6	1	1	1

^{*} These stations have an HI over 74 feet.

^{**} Work on this battery was suspended. See note (*) to paragraph 5a, Annex A.

[#] One of these stations is not authorized a DPF because the area that would be covered by such an instrument is too small.

ANNEX B

8. <u>DATUM POINTS.</u>

a. For the most part, the datum points for this harbor defense consist of lighthouses or towers. It will be necessary to erect some datum points for stations on the south side of Long Island and on Block Island. These will be covered by project letters at a later date. Since there are no visible islands south of Long Island all datum points in that area will be on Long Island itself. Exhibit 3-B shows the location of the present datum points and has a tabulation showing the stations which use these datum points.

b. Since many of the depression position finders are located in stations from which datum points that can be waterlined can be seen only when the visibility is listed as unlimited, or are beyond the maximum range of a DPF, it will be necessary to use the procedures outlined in Appendix III, FM4-15, dated 5 November 1943.

9. LAND ACQUISITION.

The parcel at Prospect Hill, Long Island Loc 14 had been leased but the lease was cancelled.

10. RADAR EQUIPMENT.

a. A tabulation of the fixed seacoast radar equipment is shown on the next page. All sets except number 2 have been installed.

b. Exhibits 4-B-1 to 4-B-12 inclusive show an approximate arc of detection at the ranges which have been found for each set for which operating data is available. These ranges are based on the targets which are normal to this area. These are, in most cases, small freighters or tankers. Ranges on destroyers, transports, cruisers or battleships is not available from operating experience.

RADAR EQUIPMENT SCR 296

AUTHORITY -- T/O & E 4-260-1, dated 11 April 1944

SET NO.	LOC NO.	SITE No.		SSIGNMENTS	ADDITIONAL	GROUND ELEVATION	EFFECTIVE ANTENNA HEIGHT	EXHIBIT
1	13A	3A	112	Dunn		82*	186'	4-B-1
2	14	14	111	112	216	128'	2341	4-B-2*
3	16	1Ħ	Dunn	216	112	81*	187'	4-B-3
4 .	16	11	216	Dunn	•	72'	178'	4-B-4
5	21	17	Benjamin	215	214	21'	127'	4-B-5
6	19	14	217	Maitland	Benjamin	751	181*	4-B-6
7	20	18	Maitland	Benjamin	217	714"	120'	4-B-7
·8	23	1G	215	214	217	100'	2061	4-B-8
9 ·	24Å	1G	214	215	111	901	196'	4-B-9

The following set of the HD of Narragansett Bay has an additional assignment for a battery in this HD.

60-2 109#

111

145

2521

4-B-12*

#Battery in HD Narragansett Bay

*Due to the suspension of work on Battery Cons. 111 and Battery Cons. 109 as explained in Annex A, par. 5a, the supply of the SCR 296 to this location has been cancelled. The construction of an operations building, two power plant shelters, the tower footings, commercial power feed, and access road have been completed at Loc. 14.

8CR-582 and SCR 682

AUTHORITY - Letter, Hq NES, file 413.68, dated 7 November 1942; 2nd Ind. Hq C of E, file 665 CM 19150 SPEOF, dated 25 November 1942, and 3rd Ind. OC Sig O, file SPSRB 665.1 HD (1st Ser C) (11-7-42) dated 2 December 1942. A radar set SCR 682 was substituted for an SCR 582 pursuant to letter, War Department, AGO, AG413.44 (24 July 1943) OB-S-SPRMS, 26 July 1943, subject: "Issue of Instructions on Replacement of SCR 582 Radar Set by SCR 682 Radar Set."

TYPE OF SET	NO.	SITE NO.	Assignment	GROUND ELEVATION	EFFECTIVE ANTENNA \ HEIGHT	EXHIBIT
5 82	16	2C	HDCP - Surveillance	75'	127!	4-B-10
682	23	18	HDCP - Surveillance	102'	132	4-B-11

1. TACTICAL ORGANIZATION.

- a. The tactical organization of the AA Battalion is shown in Exhibit 1-E. The two fixed AA gun batteries, the two AA S/L platoons, and the AAIS OP's, operate under control of the AA Battalion. They send their reports directly to its sub-operations board.
- b. The automatic AA weapons are assigned by T/OEE to the various batteries, both antiaircraft and seacoast. The AA Battalion Commander alerts the Harbor Defense on the approach of hostile aircraft, but has no direct fire control over any of the automatic weapons.
- c. The Harbor Defense Commander will assign some or all of the AMTB batteries to the AA Battalion whenever hostile aircraft present a more serious threat than do the seaborne targets.

2. ESTIMATED REINFORCEMENTS REQUIRED.

- a. Counting on antiaircraft support from the AMTB batteries, the following additional mobile equipment is required to properly protect the three island forts:
 - Two (2) 90mm AA gun batteries
 - Sixteen (16) 37mm or 40mm guns
 - Ten (10) AA searchlights
 - Four (4) radar sets
 - b. Defense of the Camp Hero area would require:
 - Three (3) 90mm AA gun batteries
 - Twelve (12) 37mm or 40mm guns
 - Five (5) AA searchlights
 - Six (6) radar sets (including three with the AA batteries)

3. GUN DEFENSE.

- a. The AA Gun defense consists of two fixed 3" gun batteries of 3 guns each, located at Forts Michie and Wright, respectively. The two mobile AA gun batteries previously authorized for Montauk were eliminated by secret letter from the War Dept., file AG 660.2 AA (10-23-40) M-OCCA, dated 1 November 1940, subject: "Revision of Antiaircraft Annex, Harbor Defense Projects." The six AMTB batteries have secondary assignment of AA defense.
- b. According to T/O & E 4-260-1, dated 11 April 1944, one SCR 584 or SCR 545 is authorized per AA Gun Battery.

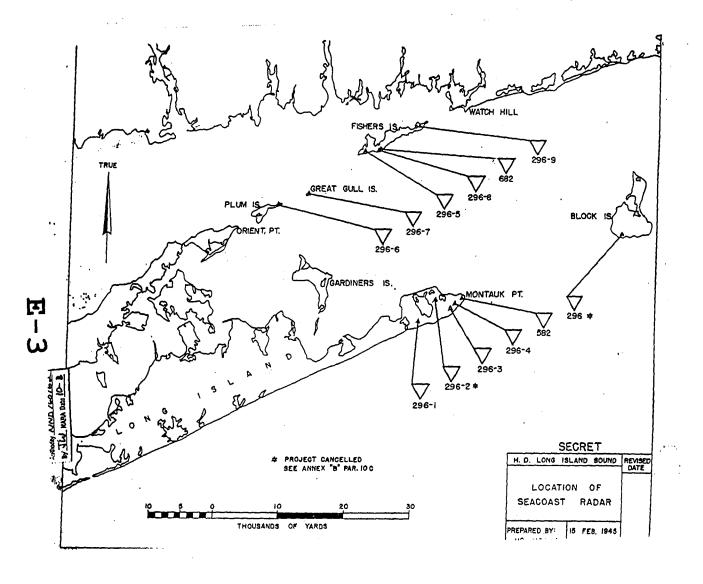
4. SEARCHLIGHT DEFENSE

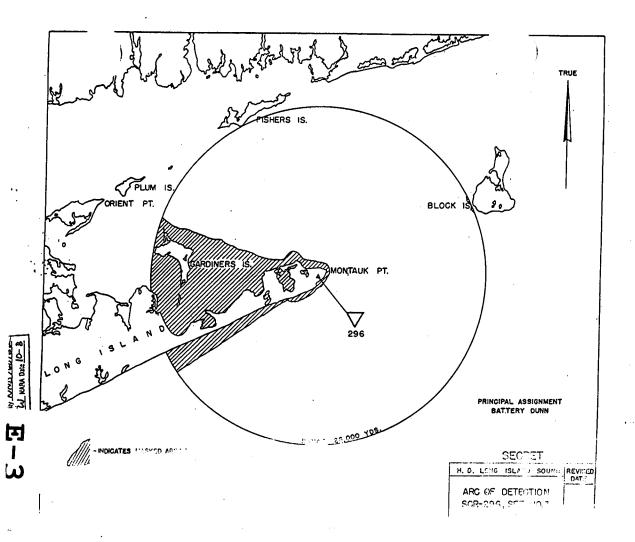
a. Five (5) 60-inch portable AA searchlights per fixed AA gun battery, a total of ten (10) for the Harbor Defenses, are authorized by the project.

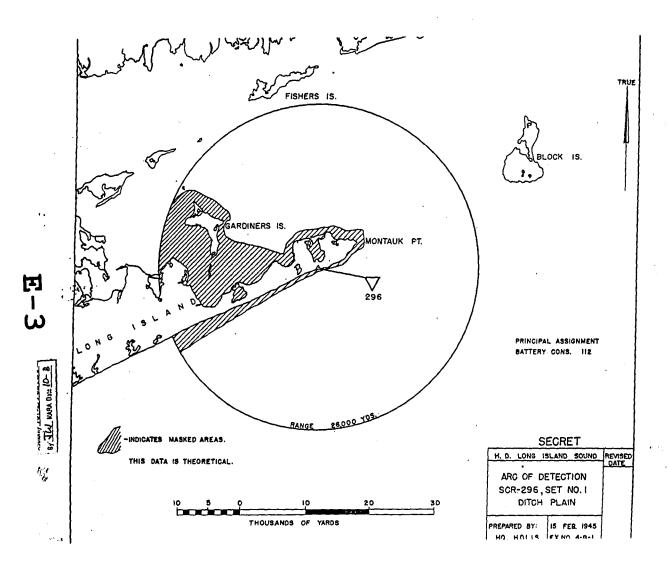
b. T/O&E 4-260-1 authorizes three (3) radio sets SCR 268 per AA S/L platoon, a total of six (6) for the Harbor Defenses.

5. AUTOMATIC WEAPONS DEFENSE

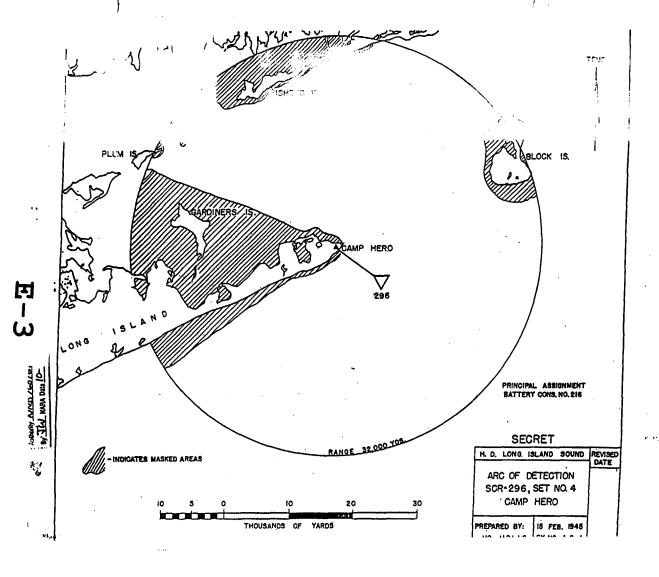
The assignment of antiaircraft automatic weapons as authorized by T/O&E 4-260-1 is tabulated on the next two pages. The general location and fields of fire of the 40mm guns are shown on Exhibit 6-E.

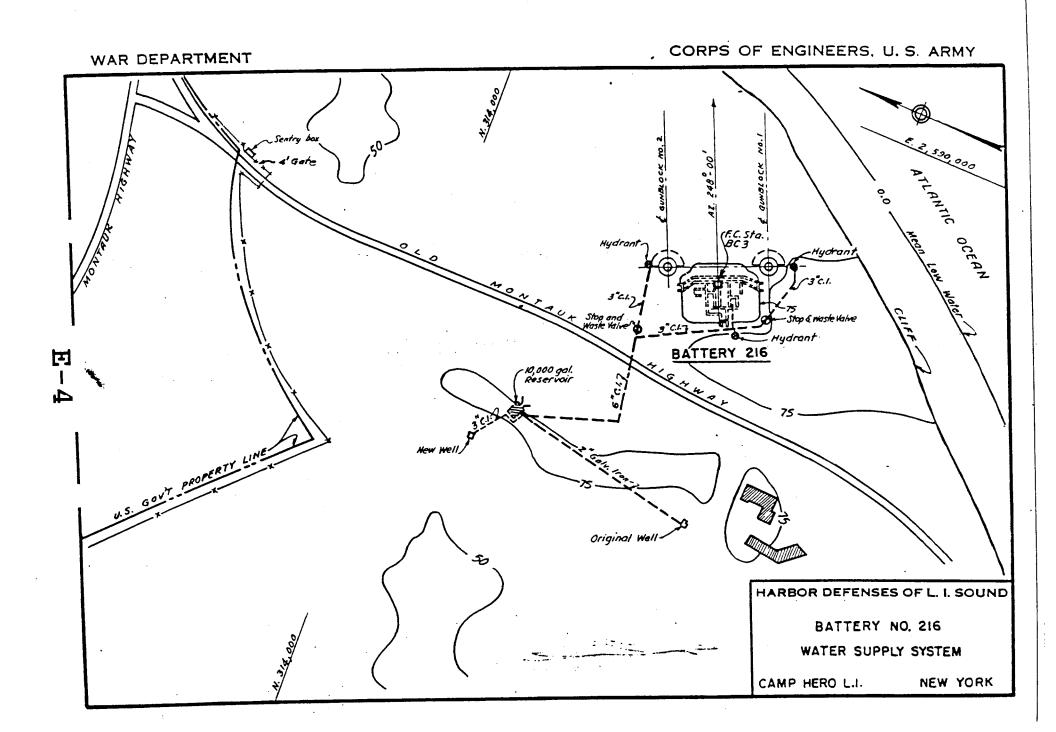






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REPORT	COMPLETED WORKS - SEACOAS	ST FORTIFICATIONS.
600.910	L (d) Sd) 90030	•
Part VI		to 28 April 194

DEFENSES OF LONG ISLAND SQUND CAMP HERO, L. I., NEW YORK	
R-BEPARTMENT-STRUCTURES upply System - Battery #216	

On this sheet list any existing structures of a permanent or semipermanent nature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings, railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc., and cost if known.

SPEKM-1

Location: Camp Hero Reservation, Montauk Pt., Eastern tip of Long Island. Date of Transfer: 5 January 1944

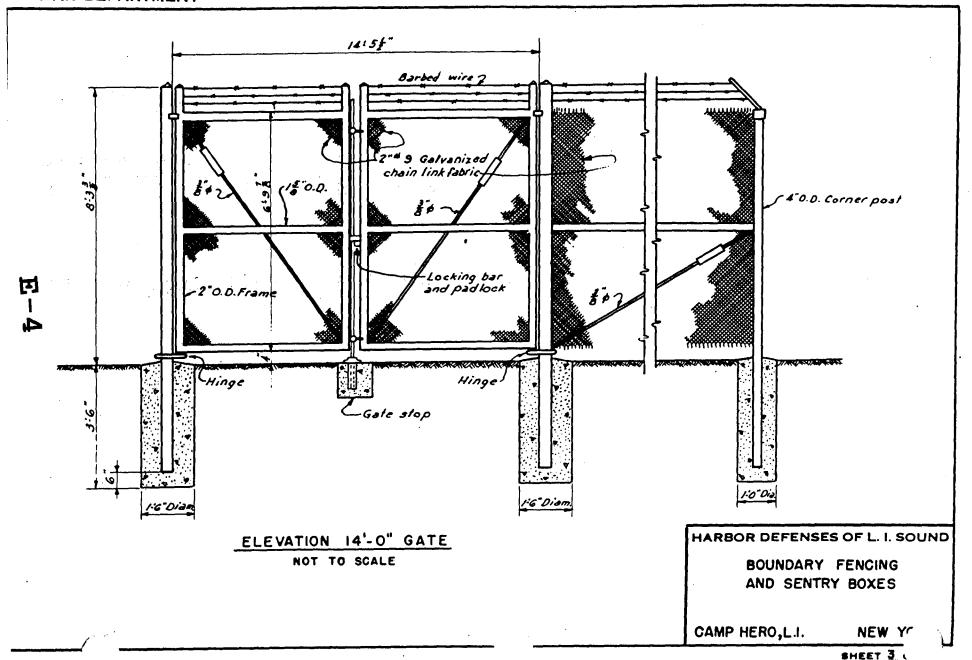
Cost to that Date: \$24,205.40

This project consists of 10,000 gal. concrete Reservoir and Pump Room with 1 Fire Pump at 180 G.P.M. and 1 Domestic Pump at 10 G.P.M.

1 Well Pump at 20 G.P.M.

1470 lin. ft. of distribution lines.

SECKET



REPOR . WAPLETED WORKS - SEACOAST FORTIFICATIONS.

600.714 (20) -1704

Part VI

Corrected to 26 January 1944

HARBOR DEFENSES OF LONG ISLAND SOUND FORF CAMP HERO, L. I., NEW YORK

BNGINEER-BEPARTMENT-STRUCTURES
BOUNDARY FENCING & SENTRY BOXES

On this sheet list any existing structures of a permanent or semipermanent nature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings, railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc., and cost if known.

SPEKM-1

Location: Boundary of Camp Hero Reservation, Montauk Point, Eastern tip of Long Island, N. Y. Tate of Transfer: 5 January 1944

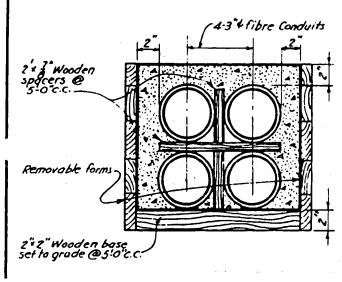
Jost to that date: Fencing - \$30,761.97

Sentry boxes- \$6,410.00

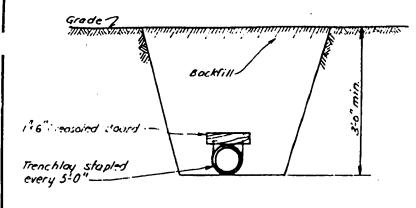
This project consists of 14,710 lin. ft. of 7' high #9 cyclone fence, and 6 concrete sentry boxes.

王-4

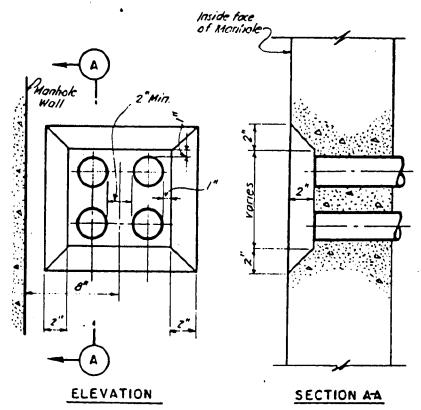




TYPICAL DUCT DETAIL



"TRENCHLAY" DETAIL

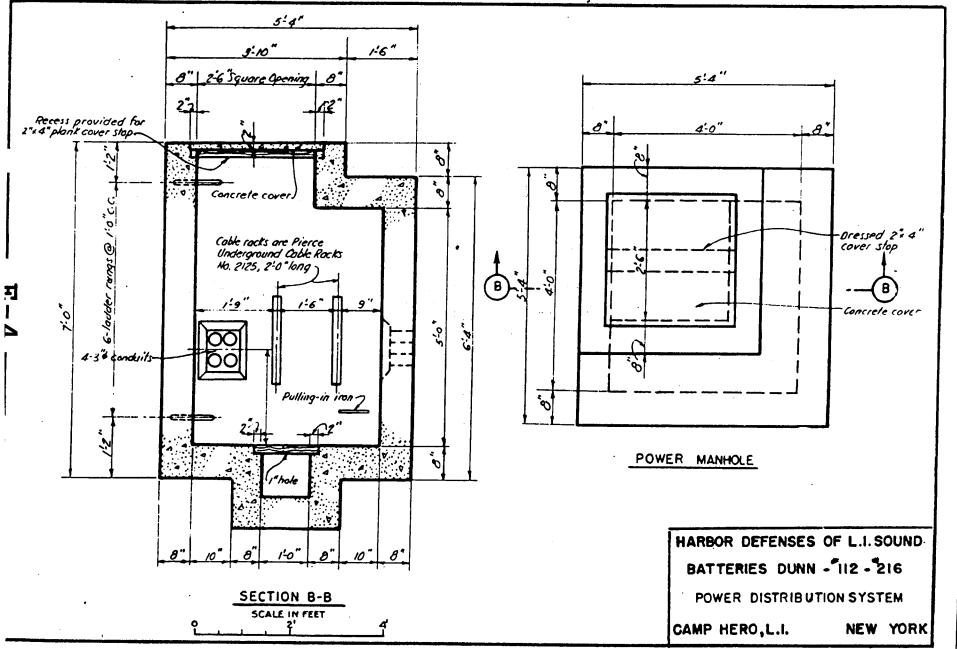


TYPICAL CONDUIT RECESS

HARBOR DEFENSES OF L.I. SOUND BATTERIES DUNN - 112 - 216 POWER DISTRIBUTION SYSTEM

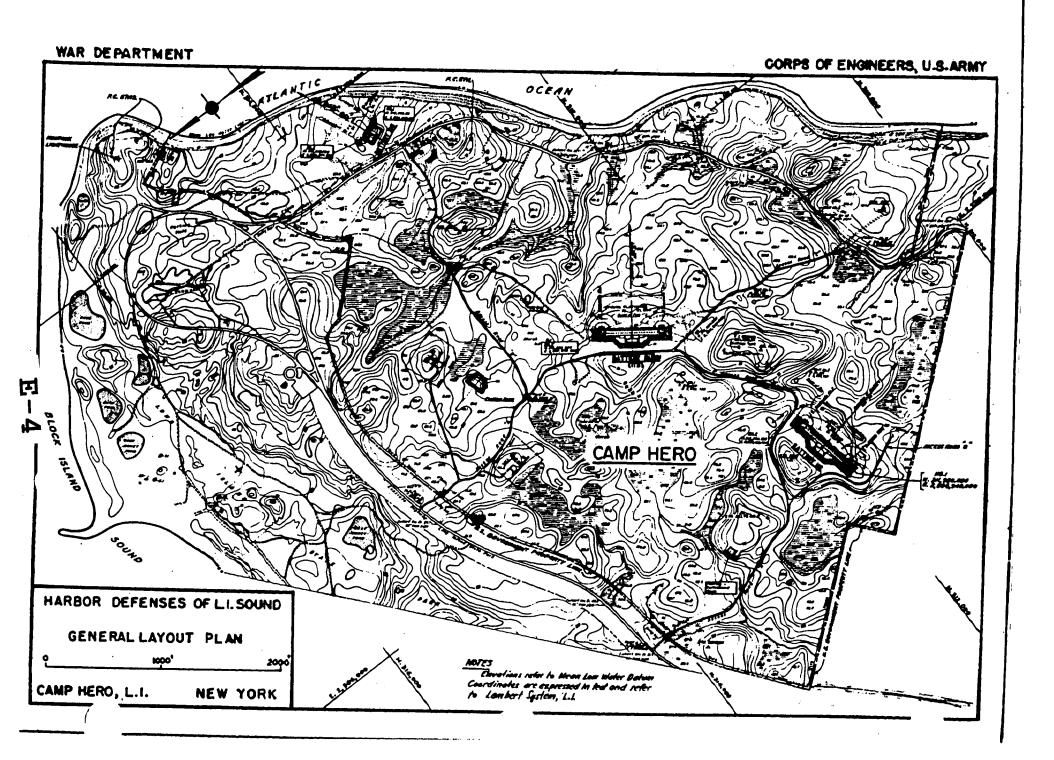
CAMP HERO, L.I.

NEW YORK



WAR DEPARTMENT CORPS OF ENGINEERS, U.S. ARMY Manholes Original Wells 3/c 4 Trenchlay 2 c #10 Trenchlay 10,000 gal. Reservoir 7 4c *10 Trenchlay Well No.4~ Installed 30 amp. 440 volt fusible watertight safaty switch and connect to well pump motor. HARBOR DEFENSES OF L. I. SOUND Government Property Line BATTERIES DUNN - 112 - 216 POWER DISTRIBUTION SYSTEM GAMP HERO, L.I. NEW

CORPS OF ENGINEERS, U. S. ARMY WAR DEPARTMENT for commercial power comection. Well No.3 3/c= 8 Trenchlay BATTERY DUNN F. C. Station 50,000 gal. reservoir 13/c " 2 Trenchlay Well No. 1 Cic -10 Trenchlay , 4c *8 Trenchlay Plotting Room Well No. 2 7 3/c "I Feed From Battery to Molling Room 1/c "2 Feed from 团 Battery to Reservoir 3/c" 2 Feed from Ballery to Plotting -Switchboard Room Plotting Switchboard Doom. HARBOR DEFENSES OF L. I. SOUND BATTERIES DUNN - 112 - 216 POWER DISTRIBUTION SYSTEM CAMP HERO, L.I. NEW YORK



HARBOR DEFENSES OF LONG ISLAND SOUND CAMP HERO, L. I., NEW YORK

Part VI

Corrected to 24 April 1944

ENGINEER DEPARTMENT CTRUCTURES POWER DISTRIBUTION SYSTEM

On this sheet list any existing structures of a permanent or semipermanent nature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings. railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc., and cost if known.

Location - Camp Hero Military Reservation, L. I., New York. D' of Transfer - 5 January 1944. Cu_ : to that date - \$46,705.45

This project consists of construction of manholes, duct lines, and installation of cables for the distribution of electrical power from Batteries Dunn, No. 112 & No. 216 to other fortification elements.

92-4882

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	REPORT	OF	COMPLETED	WORKS	-	SEACOAST	FORTIFICA	ATIONS
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600.914 (2) 84704

Part VI Corrected to 26 April 1944.

HARBOR DEFENSES OF LONG ISLAND SOUND FORT- CAMP HERO, L. I., NEW YORK

ENGINEER-BEPARTMENT-STRUCTURES

Access Roads

On this sheet list any existing structures of a permanent or semipermanent nature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings, railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc., and cost if known.

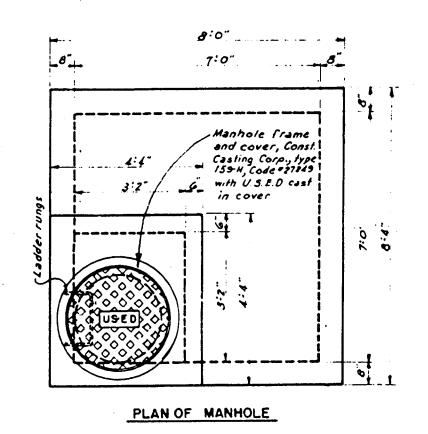
SPEKM-1

Location - Camp Hero Reservation, Montauk Point, Eastern Tip of Long Island, N. Y.

- te of Transfer: 5 January 1944
- -st to that date: \$72,976.34
- This project consists of access roads to fortification structures, drop inlets and culverts.
- 21,867 sq. yds. bituminous penetrated macadam roads.

王-4





HARBOR DEFENSES OF L.I. SOUND
BATTERIES DUNN & 112
WATER SUPPLY SYSTEM

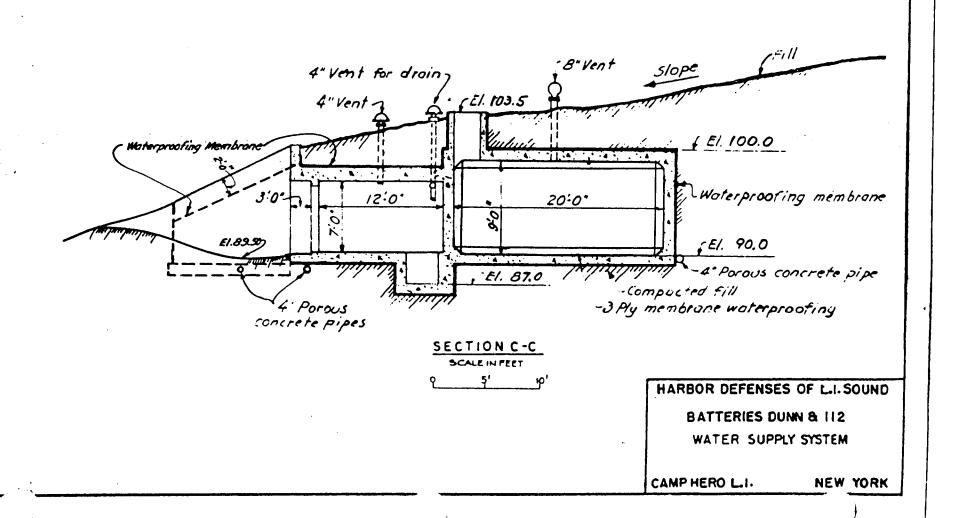
CAMP HERO L.I.

NEW YORK

CAMP HERO L.I.

NEW YORK

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CORPS OF ENGINEERS, U.S.ARMY WAR DEPARTMENT HARBOR DEFENSES OF LI. SOUND GENERAL LAYOUT PLAN 2000 Elevations refer to Mean Low Water Datum Coordinates are expressed in feet and refer to Lambert System, L.L. NEW YORK CAMP HERO, L.I.

T	11	
1		
3	1	
9	•	

				FORTIFICATIONS
600.	914 (£	USD :	90030	

HARBOR DEFENSES OF LONG ISLAND SOUND
FORT CAMP HERO, L. I., NEW YORK

ENGINEER DEPARTMENT- CTRUCTURES
WATER SUPPLY SYSTEM (BATT, DUNN & #112)

Part VI Corrected to 28 APRIL 1944.

On this sheet list any existing structures of a permanent or semipermanent nature used wholly or in part by the Engineer Department, such as wharves, storehouses, quarters, office buildings, railroads and railroad equipment, giving for each a short description, dimensions, materials of construction, present use, location, etc., and cost if known.

SPEKM-1

Location: Camp Hero, Reservation, Montauk Pt., Eastern tip of Long Island, New York. Date of Transfer: 5 January 1944.

C : to that date: \$66,526.12.

This project consists of 50,000 gal. concrete reservoir with Pump Room having

1 Fire Pump at 270 G.F.M. and 1 Domestic Pump at 50 G.F.M.

3 Well Pumps at 20 G.P.M. each.

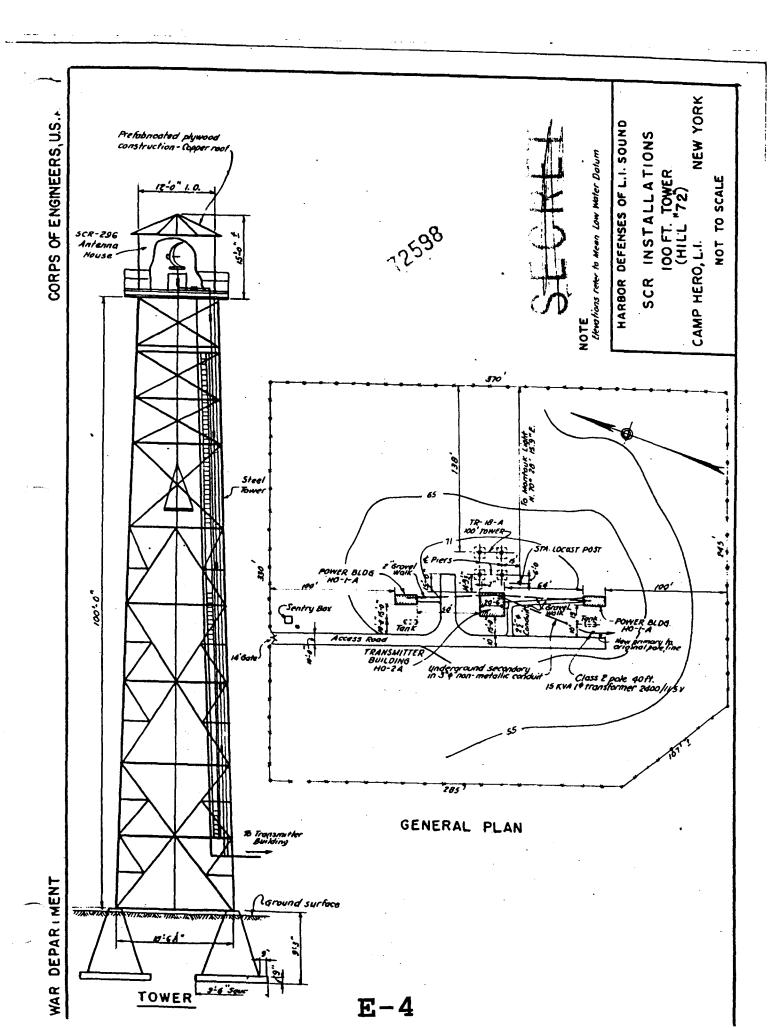
9,600 lin. ft. of distribution lines (cast iron).

王-4

90030

SECRET

92-4882



Part II

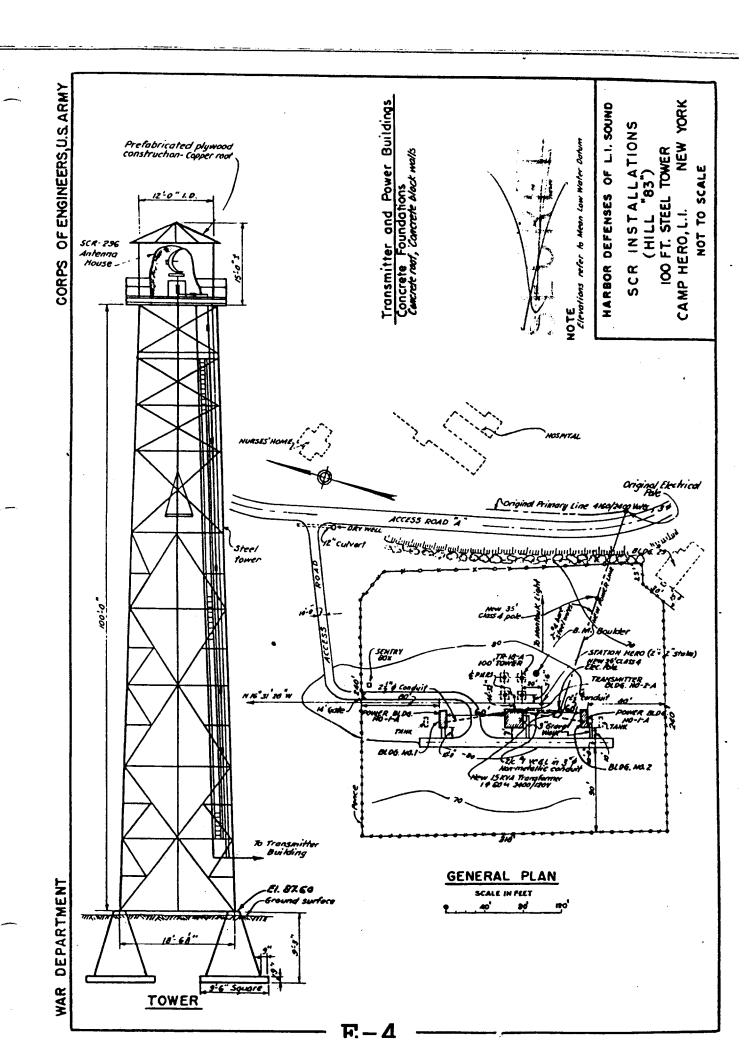
REPORT OF COMFLETED MORKS - SEACOAST FORTIFICATIONS (Fire Control or Submarine Mine Structure)

Corrected to

HARBOR DEFENSES OF LONG ISLAND SOUND FORT CAMP HERO, L. I. NEW YORK STRUCTURE SCR-296 INSTALLATION (HILL "72") For Brry. 216	OF EAST A
INSTRUMENTS & LQUIPMENT	
Type of observing inst. SCR-296 Installation	• •
DATA TRANSMISSION:	=
Type Date of transfer	
TIDE STATION: Give description of tide gauge	
DATUM POINTS: Give Forts from which visible	
QUARTERS: Give stations served	
CABLE HUT: Give S.C. Type Remarks: *Prefabricated antenna house, tower, two power buildings, generators, tanks, equipment and transmitter building for SCR-296 Installation supplied by the Signal Corps.	r
SEGRET.	

Special Lambout Center of Tower
Special Lambert Center of Tower STRUCTURE: Projection (L.I.) x 64,614.673 yds. Location (by coordinates) y 48,851.626 yds. Location (by site description) East end of Camp Hero
Location (by coordinates) y 48,851.626 yds.
Location (by site description) East end of Camp Hero Date of transfer 27 October 1943 Reservation
Date of transfer 27 October 1943 Reservation
Cost to that date \$ 20,501.Q2 =
Type (for observing stattower, dug-in,
cottege, etc.)
Type of construction
(a) Roof Copper Tower- Structural Steel
(h) Pamaindan of hidg. Sheet Metal - Concrete Founday
How concealed .Camouflage Paint tions
How protected
Height above consealment Mone
Height above protection115.ft
Conspicuous at 4,000 yards
UTILITIES:
Electric Power
Source of Commercial + 2 - 25 KVA Generators
Characteristics: Voltage 115Ac -or -DO: Phase .10.
1641
Type of lighting fixtures Commercial Standard Fixtures
Heat (
How heated Transmitter Bldg, Florence Heater Type- PF 28A
Pater Sewer
Connected to water mains No.
Connected to sewer No
Type latrine None
REFERENCE:
Reference of site Mean Low Mater.
n.c. Mean Low Water
Reference of instrument axis Mean Low Water
where (Troe and Capacity of Grane One Ton Electric
a cable (Mx. dia. of real-tandled 104' Lift
156

applicable)



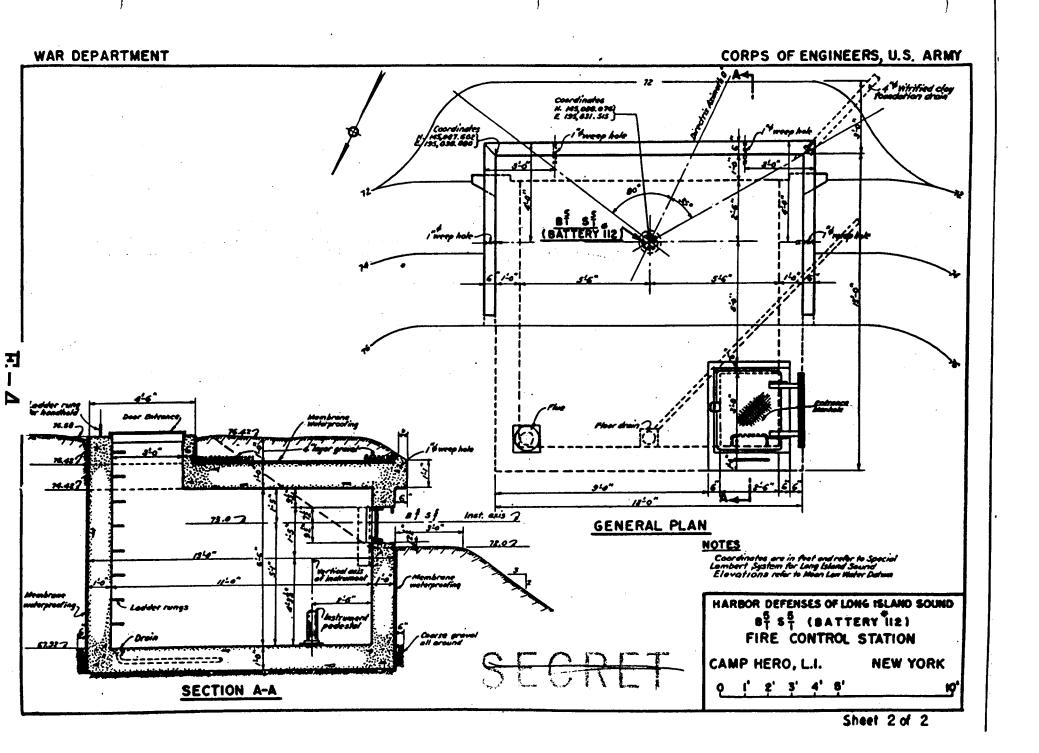
REPORT OF COMFLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Submarine Mine Structure)

(Fire Control or Submarine Mine Structure)	SAMP HERO, LONG ISLAND, NEW YORK
	STRUCTURE SCR-296 INSTALLATION
Part II Corrected to 15 MARCH 1944	(HILL "85") Corps of 19
	MA 600.914 (Mortant 17 7/5)
STRUCTURE: Special Lambert Center of Tower Projection (L.I.) Location (by coordinates) y. 48,849.308 yds	INSTRUMENTS & EQUIPMENT BY IDEA
Projection (L.I.)	
Location (by coordinates) y49,044.5un yas	Type of observing inst. Sch-296 Installation.
Location (by site description) Camp Hero Reservation	Type of plotting board
Date of transfer 5 January 1944 Center	
Cost to that date \$18,297.36* S.G.Project 233 Funds	DAMA MD GICHECTON.
Type (for observing stattower, dug-in,	DATA TRANSMISSION:
cottage, etc.) Tower	TypeTelephones
Type of construction (a) Roof Copper - Tower Struct, Steel	Date of transfer
(b) Remainder of bldgs. Concrete Block	MT WT COLUMN ALL
How concealed Camouflage Paint	TIDE STATION:
How protected Splinterproof Concrete Bldgs	Give description of tide gauge
Height above concealment None.	
Height above protection Tower - 115' above ground	DATUM POINTS:
Conspicuous at 4.000. yards	10
UTILITIES:	Ga bl
Electric Power	리 QUARTERS:
Source of Commercial & 2-25. KVA . Generators	QUARTERS: Give stations served
Characteristics: Voltagellb Ac er_DCPhase . 10.	d
Kilowatts required 15	0
"wpe of lighting fixtures Commercial Standard - CSF	CABLE HUT:
Heat	Give S.C. Type
How heated Transmitter Bldg Florence Heater	1 🐞
Water Sewer Type PF-28A	Prefabricated antenna house, tower, generators,
Connected to water mains No.	tanks, equipment for SCR-296 installation supplied
Connected to sewer No.	by the Signal Corps.
Type latrine None	
	This project includes also, wooden sentry box,
DEPEDENCE .	fencing around property, and access road.
REFERENCE:	SCR 296-A declared obsolete, letter AG 17 Jan. 46, file
Reference of site Top of Tower Footing - El. 87.60 M.L.	no dry edd (T) come do (OD-D-D) or D.
Reference of instrument axis Thomas Hotel Ton Electric	Tower and equipment to be disposed of. Buildings to be
	retained.
applicable (Mix. dia. of mobilingled 194! Lift,	

,55

7

HARBOR DEFENSES OF LONG ISLAND SOUND



600.914 (208) 88691	
REPORT OF COMPLETED WORKS - SEACOAST FORTIFIC	ATIONS
(Fire Control or Submarine Mine Structure)	11.5-14.5

HARBOR DEFENSES OF PORT CAMP HERO, LONG ISLAND, NEW YORL STRUCTURE FIRE CONTROL STATION B1S1 (Batt. No. 112)

	Corre			
STRUCTURE: Sp	ecial Lambert	Cent	or of Instr 5,010,692 y	ument
Location (b)	y coordinates)	7. ARG. BRG. YI	Mann Sales
Location (by	site descrip	otion) Lo	cation 16-	Site 2A
Date of tran	sfer	24 Septem	or.1943	4.
→ Cost to that	date	\$5,275,63		
5	ottegé, etc.	Dug ج: ا	n.Typa.,	
Type of cons	struction	Conci	ote	76
(b) Remai	nder of bldg.	Cono	ate	
How concealed to the protects	d Earth Mil. d Splinterpro	of Concre	ta	Talente.

DISTRUMENTS & LQUIPMENT Type of observing inst. Type of plotting board DATA TRANSMISSION:

> Type Date of transfer

Telephone

TIDE STATION:

Give description of tide gauge ...

DATUM POINTS:

Give Forts from which visible

UTILITIES: Electric Power.....

Height above concealment ... None.

Height above protection

Conspicuous at 1.000 yards ...

Source of Commercial A. Portification.

Characteristics: Voltage Ac. or -96r. Phase 1...

Kilowatts required 2.0.5

Type of lighting fixtures Commercial Standard - CSF

Pater Sewer

Connected to water mins . No

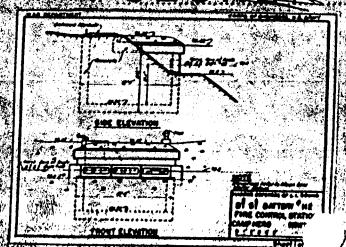
REFERENCE:

Roference of instrument axis Nean Low Note: - 181. 73.00

(Type and Capacity of Crune . None

(Max. dia; of real-mandled. licable 🖔

Give stations served



団

NOW WE STEER STATE OF THE PARTY B2 S2 (DUNN)

SECTIONAL PLAN

SCALE: IN FEET

2' 0 2'

HARBOR DEFENSES OF L.L SOUND

FIRE CONTROL STATION

B2 S2 (DUNN)

MONTAUK PT., L.I.

NEW YORK

SHEET 2 L

Nature and Cost of Additional Repairs & Modifications

1944

		معند	-	-	T ECHTTETOWITONS
ire	Control	or	Submarine	Mine	Structure)

HANDUR HERENDED UP . MINE ISLAND SOUND ... FORT MONTAUK POINT L. I. NEW YORK STRUCTURE FIRE CONTROL STATION B2S2 (DUNII) at Comp /tero

Part II Corrected to 8 APRIL 1944 Special Lambert Center of D.P.F. Instrument STRUCTURE: Proj. (L.I.) . x...65,600.699.yds..... Location (by coordinates) y. 49,103,407.yds..... Location (by site description) Location 16 - Site 2B Date of transfer ... 4 January 1944 Cost to that date \$4,165.09 Type (for observing stat.-tower, dug-in, cottege, etc.) Dug-in Type U Type of construction
(a) Roof Concrete & earth fill

(b) Remainder of bldg...Concrete How concealed Earth fill & camouflage Paint.... How protected ... Splinterproof Concrete Height above consealment ... None..... Height above protectionNone.... Conspicuous at 2,000 yards

UTILITIES:

H

Electric Power Characteristics: Voltage L16Ac-or-DC... Phase .1... ▶ Kilowatts required 1.0 Type of lighting fixtures Commercial Standard - CSF Heat How heated None Water Sewer Connected to water mains No Connected to sewer No

REFERENCE:

Reference of site Floor El. 67.92 - Mean Low Nater D.P.F. - El. 73.00 M.L. Reference of instrument axis Az.....El..73.67.H.L.W. where (Type and Capacity of Crane ... None... applicable dia. of reel-qualled

Instruments & Louipment

Type of observing inst. Azimuth & D.P.F. Type of plotting board None

DATA TRANSMISSION:

Type _____ Telephone Date of transfer

TIDE STATION:

Give description of tide gauge

DATUM POINTS:

Give Forts from which visible

QUARTERS:

Give stations served

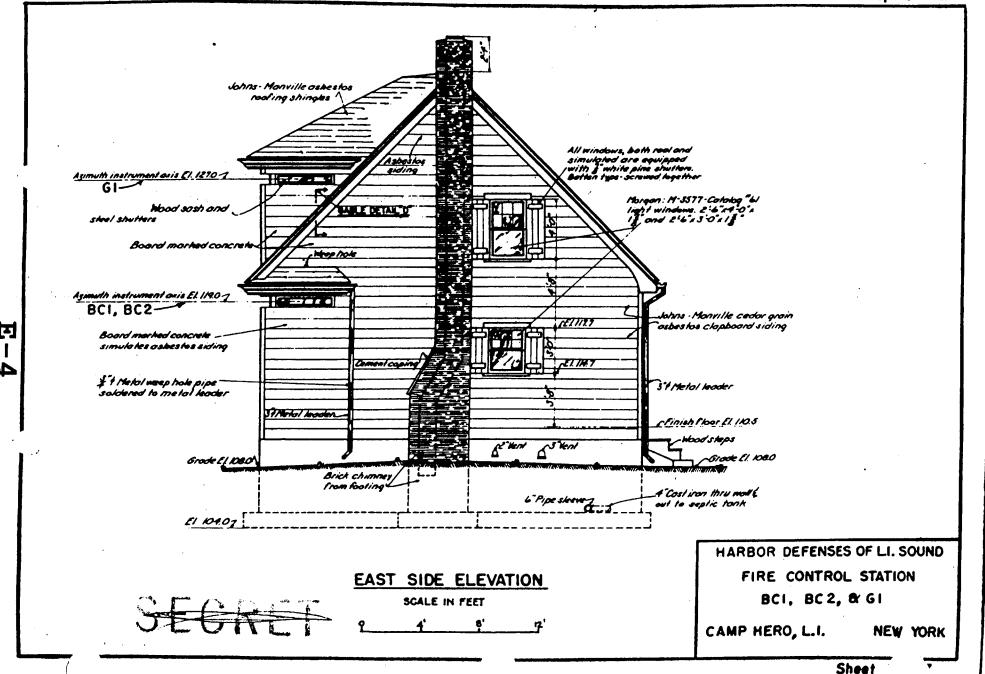
CABLE HUT:

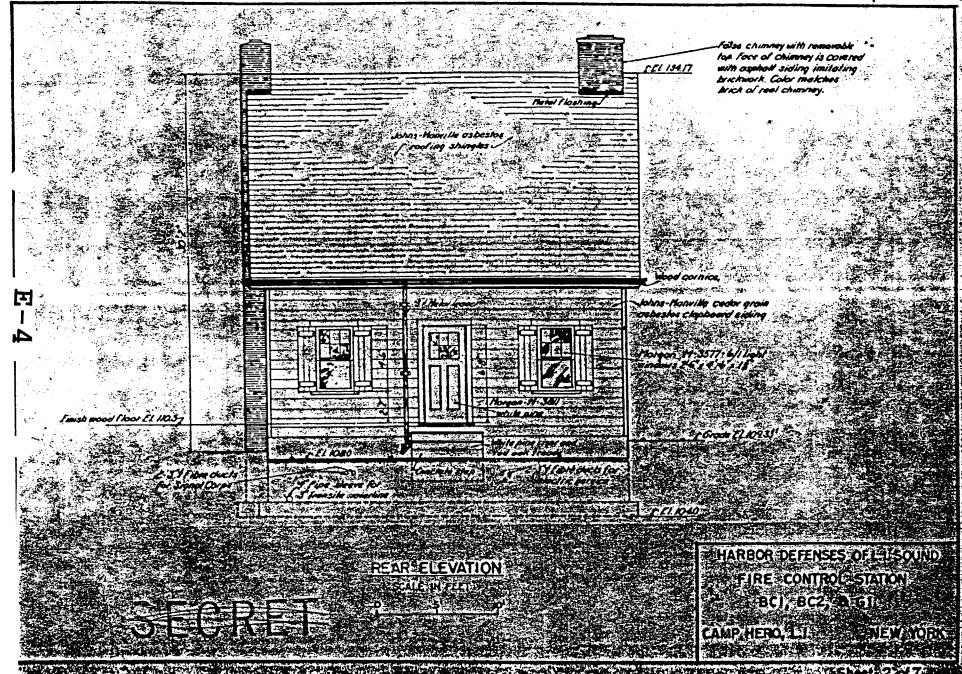
Give S.C. Type

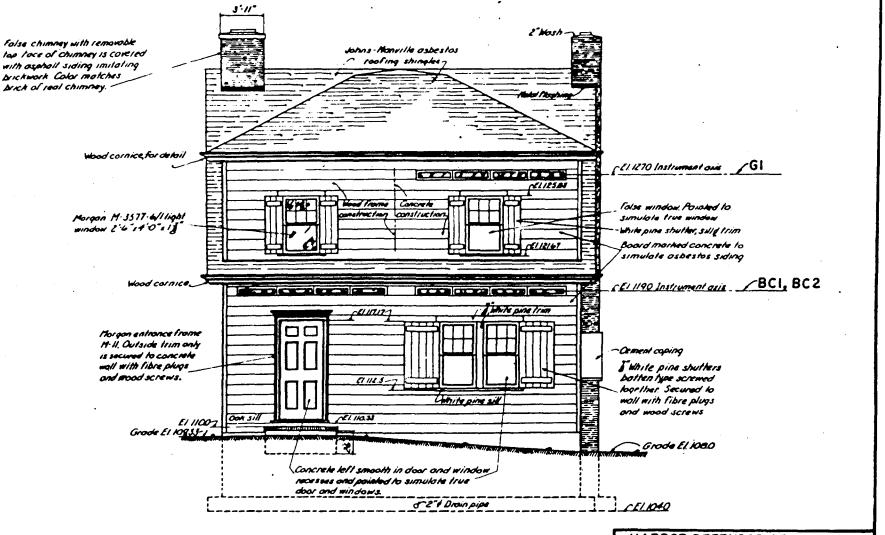
(See attached .sheet)

Sheet 6 of 7

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FRONT ELEVATION

SCALE IN FEET

-SECRET

MOTE:

< refer to Moun Low Water Datum

FIRE CONTROL STATION

BCI-(Battery 112), BC2-(Batt. Dunn), G{
CAMP HERO, L.I. NEW YORK

MEPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS (Fire Control or Submarine Mine Structure)

8 APRIL 1944

HARBOR DEFENSES OF LONG ISLAND SO FORT ___CAMP_HERQ, L. I., NIN YORK ___

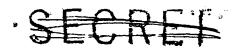
Part II		8 APRIL 1944	
STRUCTURE Special Projection (by so	Lambert Center stion (L.I.) X64.	of Instrument - 1s ,094.215.yds 160.566.yds	t F
Location (by si	te description) Lo	cation 16- Site 10	
Date of transfe	r 3 January 1944.		
Type (for obs	erving stattower	dug-in.	
cott	£ge, etc.) Cotte	ge Type	
. Twoe of constru			
• •	r of bldg. Wood Fr		
How concealed S	Simulated Cottage		
How protected	Splinterproof.Concr	ela	
Height above co	neealmentNor	1 <u>e</u>	
Height above pr	otection5 F	řt.	
Conspicuous at	6.000 yards	******************	.,
			: .
UTILITIES:		• *	
Electric Power.			
Source of For	tifications (Batt. 120/208 Voltage Ac es	#112)	
Characteristics	Voltage Ac er	-DGPhase .1p	
Kilowatts require	fixtures Commercia	1 Standard C.S.F.	
Heat	TIXOUTCD COMMISSION		
How heated Co.s.]	Fired Hot Air Fur	mace	
Connected to water	r mains Y	(e s	
Connected to sewe	r Septic Tank & T	file Drain Field	
Type latrine	Flush Type		
			=:
REFERENCE:	Finished Fi	rst Floor- El.110.	50
Reference of si	A. Hean low To	ter .	-
Reference of in	etrument axis El.	127.0 M.L.W.	
where (1	Type and Capacity o	of Grane None	

(Mix. dia. of mak-handled

FS-336

applicable

	STRUCTURE FIRE CONTROL STATION	Ė.
	BC1 (Batt. #112), BC2 (Dunn) & G1 + C,	SPEKI
•	Type of observing inst. Azimuth Type of plottin; board	
	DATA TRANSMISSION: Type Telephone Date of transfer	
	TIDE STATION: Give description of tide gauge	
ance)	DATUM POINTS: Give Forts from which visible	
oridda a	QUARTERS: Give stations served	
Janu')	CABLE HUT: Give S.C. Type	



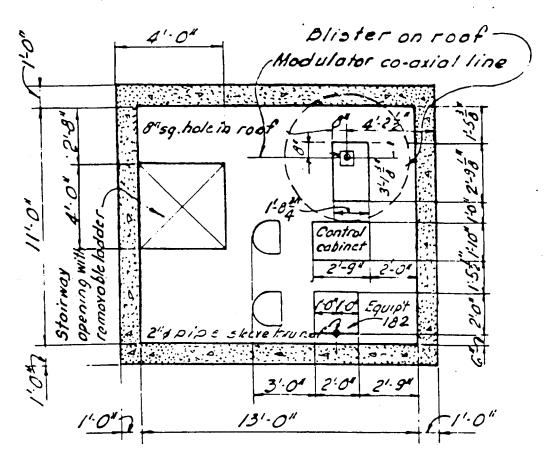
MONTAUK POINT

-New location of fog horns and pipe support New location of fog horn and pipe support. New pipe support 口 -New pipe support 2.4 studs 4.4 corner post-4.4 Post 1-2 and 1-3" corner boards PLAN SCALE IN FEET HARBOR DEFENSES OF L. I. SOUND FIRE CONTROL STATION RELOCATION OF FOG HORNS

- 9

NEW YORK

Sheet 8 of 9



PLAN OF GTH FLOOR
SHOWING CABINET LOCATIONS

5 c a /e in feet

4' 0 4' 8' 12'

FIRE CONTROL STATION
AND SCR INSTALLATIONS

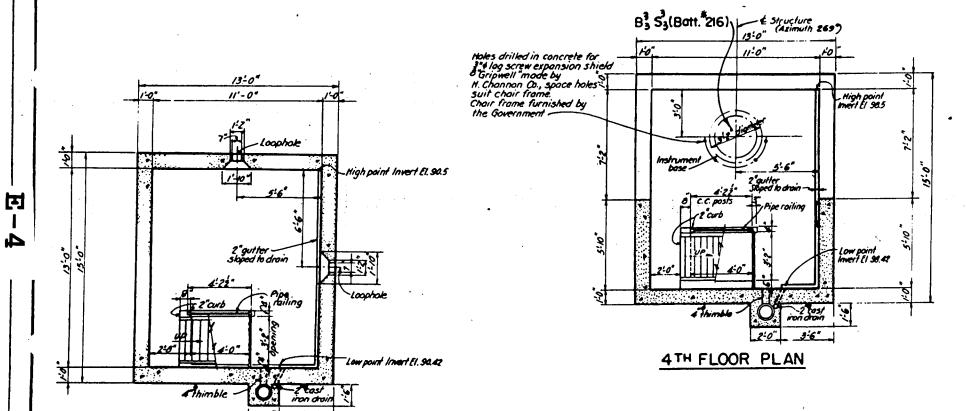
BA SA, BO SO, B S S , SCR 582

MONTAUK PT., L.I. NEW YORK

6th Floor B₁₂ S₁₂ (Batt. 114) Future 5th Floor B₁₀ S₁₀ (Batt. **111) High point Invert El 106.5 5th Floor Invert El 114.5 6th Floor Chair frame holes drilled on 5th floor only. See note on 4th floor plan This half of roof shoed to drain Instrument base 5th Fioor only ---2"4" brace Mood roiling Low point Invert El. 106.42 5th Floor Invert El. 114.42-6th Floor Roof drain Josam-2012-5 Roiling return, 6th -Ladder rungs to roof, 6 M floor only droin 2" cast iron drain 3.6 ROOF PLAN 5TH & 6TH FLOOR PLAN SCALE IN FEET

300 FLOOR PLAN

SCALE IN FEET



HARBOR DEFENSES OF LI SOUND

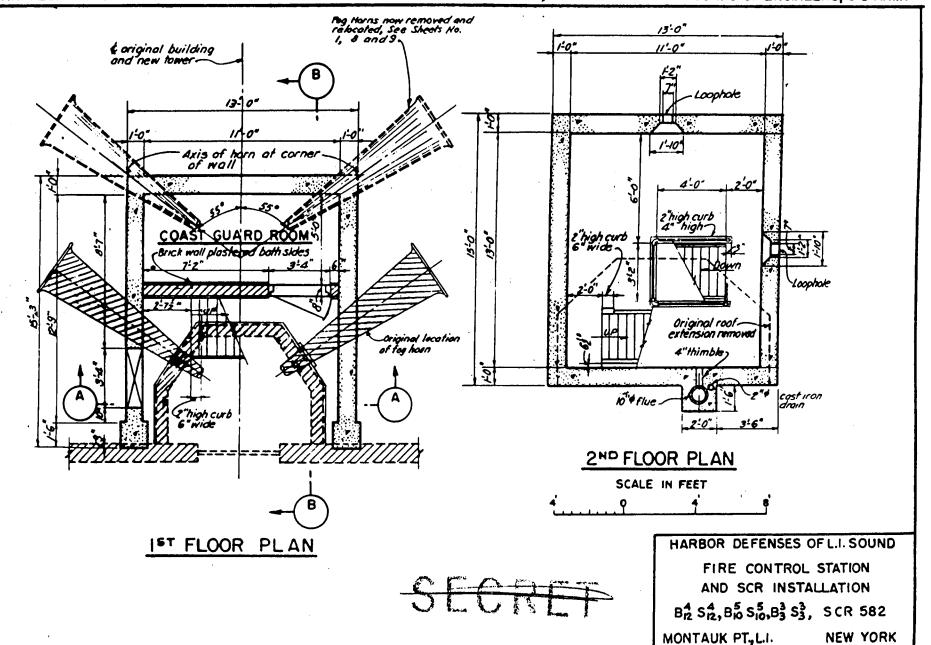
FIRE CONTROL STATION

AND SCR INSTALLATION

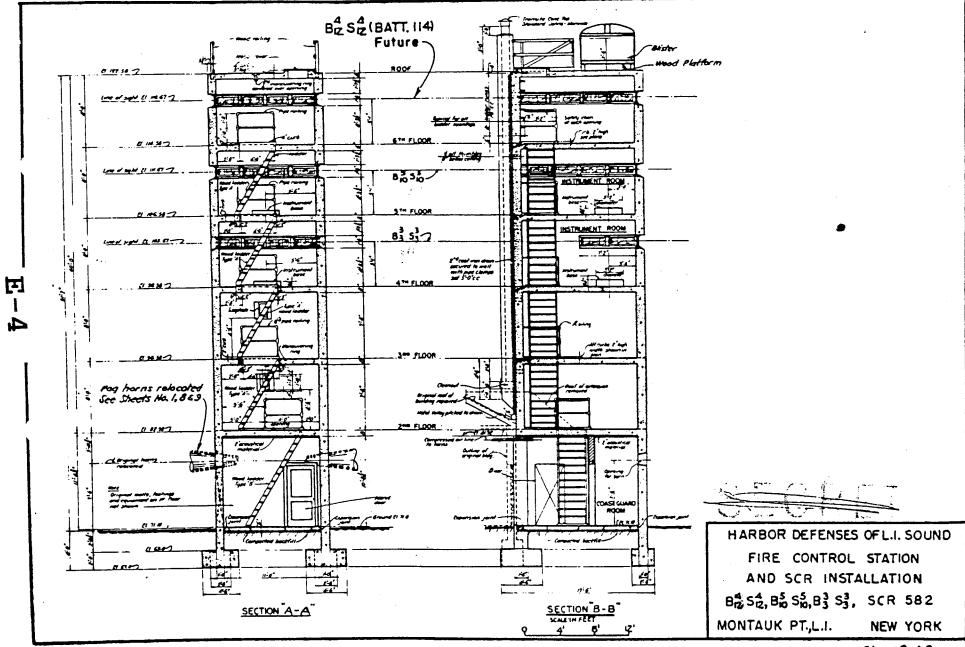
B₁₂ S₁₂, B₁₀ S₁₀, B₃ S₃, SCR 582

MONTAUK PT., L.I.

NEW YORK



Sheet 3



HEPORT OF COMPLETED HORKS - SEACOAST FORTIFICATIONS (Fire Control or Submerine Mine Structure)

HARBOR DEFENSES OF LONG ISLAND SOUND MONTAUK POINT, L. I., NEW YORK. TRUCTURE FIRE CONTROL STATION 114), B₁₀S₁₀(Batt, 111), B₃S₃

Part II Corrected to 8 APRIL 1941

Special Lambert Conter Instrument STRUCTURE: Proj. (L.1.) 4.7.65.628.290 Vd6.5 Location (by/coordinates) 7.3.49.158.242 Vd6.) Location (by site description) At. C.G. Station, Montauk Date of transfer 3 January 1944 Flocation 16, Site 20

Height above protection and the Not Applicab

type for cobserving inst. Azimuth Type of plotting board ...

NIDE STATION SET THE GRAPE AT

Give Forts from which wisible

Cive tetations served

CABLE HUT TO CHANGE STOP

(SEE ATTACHED SHEET)

NATURE & COST OF ADDITIONAL REPAIRS AND MODIFICATIONS

1944

S.C.R. 582 Installation installed Wooden Blister put on roof of F.C. Station Sheet metal covered Power Plant with concrete footings.

Blister & Power Plant prefabricated and supplied by Signal Corps.

\$3,106.78

This project consists of the installation of wiring and incidental work for a proposed standby generator for Fire Control equipment within existing structure.

\$ 239.43

1944

This project consists of relocating Fog Horns from existing Fire Control Station and construction of wooden shelter and supports for horns

\$2,071.99



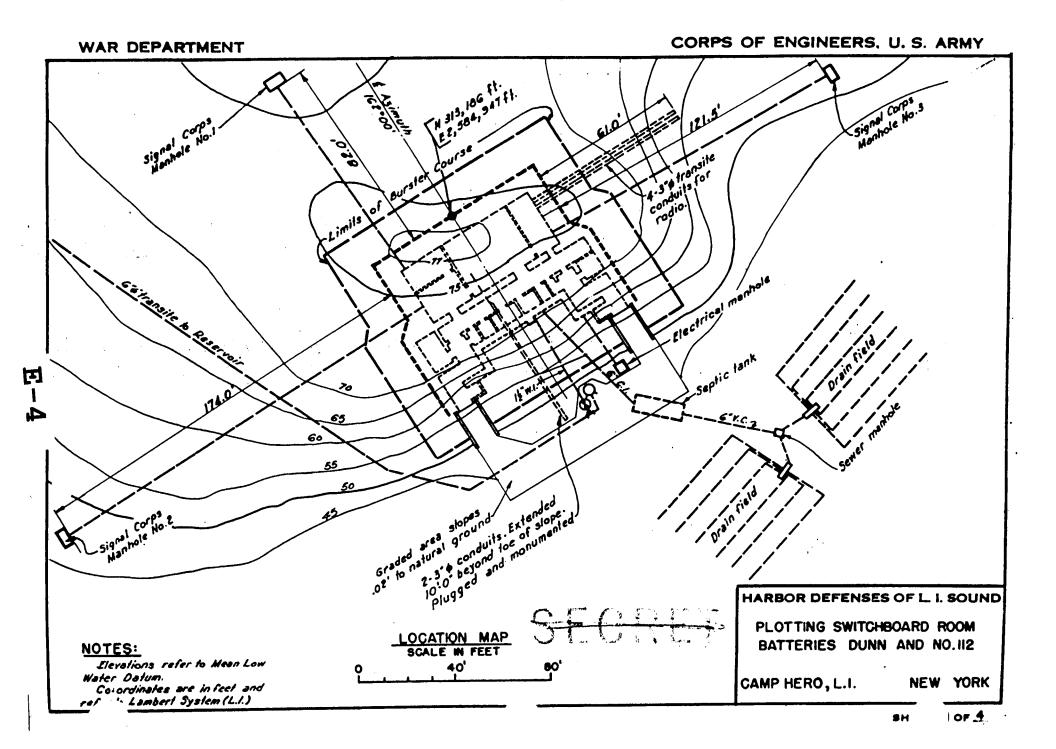
PLOTTING SWITCHBOARD ROOM BATTERIES DUNN AND NO.112

CAMP HERO, L.I.

NEW YORK

AEET

SHEET 2 OF 4



CORPS OF ENGINEERS, U.S.ARMY WAR DEPARTMENT OCEAN HARBOR DEFENSES OF L.I. SOUND PLOTTING-SWITCHBOARD ROOM BATTERIES DUNN AND NO. 112 Elevations refor to Mean Low Webs Dahm Coordinales are aupressed in Rest and refor to Lambert System, L.I. 2000 CAMP HERO L.I. **NEW YORK**

Nature & Cost of Additional Repairs & Modifications

1944

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS (Fire Control or Submarine Mine Structure)

600.914 (81) 89704

Part II Corrected to 20 April 1944
Computersions Special Lambert
STRUCTURE: Projection (L.I.) x63,664.172.yde
Location (by coordinates) y 40.049.419.199.
Location (by site description) N.W. part of recervati
Date of transfer
Cost to that date\$161,648,56
cottage, etc.) Bombproof
Type of construction (a) Roof Concrete
(b) Remainder of bldg. Concrete
How concerled Earth fill & veretation
How concealed Earth fill & yegetation How protected Bombproof Concrete - Sand Fill
Height above concealment None Height above protection None
Height above protection None
Conspicuous at 500 yards
UTILITIES:
Electric Power
Course of Fortification 4 Diesel Generator
Source ofFortification & Diesel Generator
Kilowatts required
Type of lighting fixtures Commercial Standard - CSF
Heat
How heated Coal Fired Boiler, Hot Air, Auto-Stoker.
Mater Sewer
Connected to water mains Yes
Connected to sewer Septic Tank & Drain Field
Type latrine Mon-Frese, Pressure Tanks
REFERENCE: Fin. Floor El. 47.50
Reference of site Mean Low Natar
Defended of instrument and a Mone
where (Type and Capacity of Grane Mone
annitonhia (Max. dis. of malahandled

	FORT CAMP HERO, L. I. MEN YORK STRUCTURE PLOTTING-SWITCHBOARD ROOM BATTERIES HEREE \$112
INSTRU	JMENTS & EQUIPMENT
• •	of observing inst. Kone of plottin; board K4
	Telephone, Radio & Data Computor
Type Date	of transfer
	TATION: description of tide gauge
	POINTS: Forts from which visible
QUARTE Give	RS: stations served
CABLE	HUT: E.C. Type



CORPS OF ENGINEERS, U.S. ARMY WAR DEPARTMENT ind needs hole Line of new fill _1" Incep hate Stand below BC 3 (BATT.216). & Structure & Baltony -6"floor drain original. 1-6" Burster Course . Entrence Montale Lithweep hate To & between gun blocks 4-2" 7-10" GENERAL PLAN Elevations refer to Mean Low Water Datum HARBOR DEFENSES OF LONG ISLAND SOUND FIRE CONTROL STATION BC 3 (BATT, 216) Original roof of Battery CAMP HERO MONTAUK PT., L.I., N.Y. SECTION A-A 0 1 2 3 4 SHEET 2 OF

REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS (Fire Control or Submarine Mine Structure) 600. 914 (FJ) 89104

HARBOR DEFENSES OF LONG ISLAND SQUI PORP ... CAMP HERO, LONG ISLAND, NEW) STRUCTURE Fire Control Station BC 3 (Batt. No. 216)

Part II Corrected to 24 APRIL 1944

	Lambert System Center of instrument
	STRUCTURE: (1.1.) x 2.589.569.16 ft.
	Location (by coordinates) y 313,475,37.ft.
	Location (by site description) Top. of Battery No. 216
	Date of transfer 24 September 1943
	Cost to that date \$ 3.298.59
	Type (for observing stattower, dug-in,
	cottage, etc.) Dug-in Type
	Type of construction (a) Roof Concrete
	(a) Roof Concrete
	(b) Remainder of bldg. Concrete How concealed Earth & Vegetation
	How concealed Earth & Vegetation
[F]	How protected Splinterproof Concrete
1	Height above consealment None
4	Height above protection
	Conspicuous at 1,000. yards
	Oniohicana en atasa. Aeras

Electric Power		
Source of	iai & Portiii	Cation
Characteristics: Volta	ge ¹¹⁵ Ac or D 6	Phase
Kilowatts required	Ω.5.	
Type of lighting fixtures Heat		
low heated Prepared for	or.Coml.Store	
Mater Sewer	•	٠
Connected to water mains	No	
Connected to water mains. Connected to sewer	No	I PUE
Type latrine	None	N.C.

REFERENCE:	Fin. Floor Elev. 96.42
Reference of	site Mean Low Rater
Reference of where applicable	instrument axis Mean Low Mater (Type and Capacity of Grane None (Max. dia. of reshrandled None

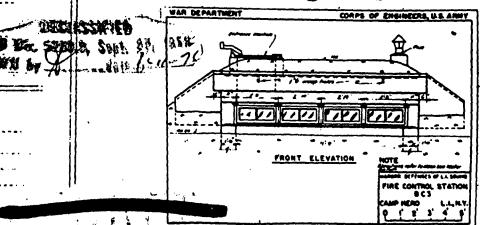
Type of observing inst	Azimuth
Type of plotting board	None
DATA TRANSMISSION:	
Type	Telephone
Date of transfer	· · · · · · · · · · · · · · · · · · ·
TIDE STATION:	
, Give description of tide go	
DATUM POINTS:	
Give Forts from which visit	

QUARTERS: Give stations served

CABLE HUT: Give S.C. Type

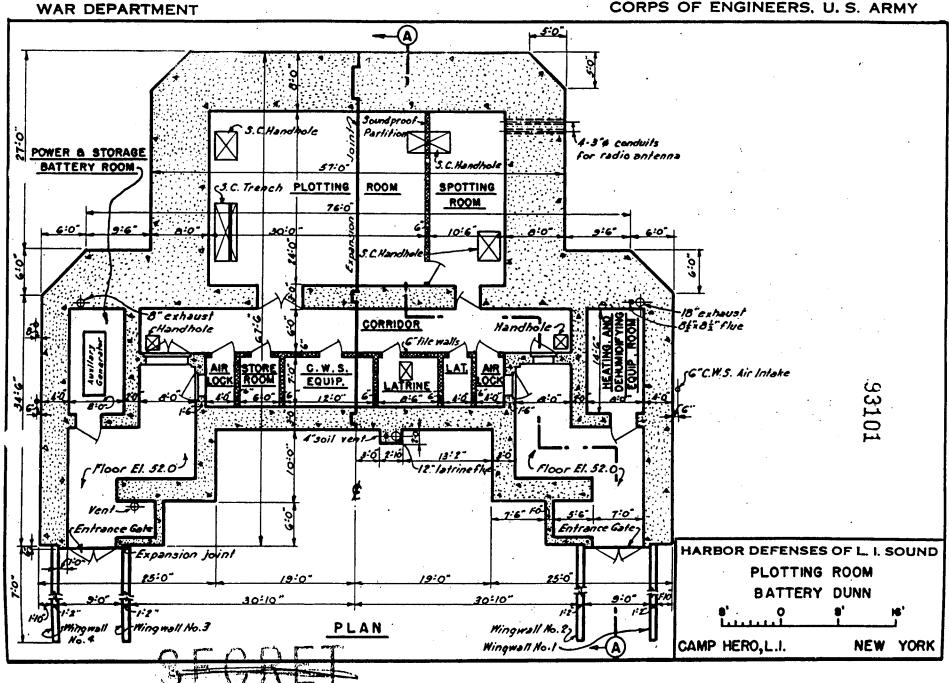
- 1321 1234 1E





UTILITIES:

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Nature & Cost of Additional Repairs & Modifications

1944

This project consists of the installation of 25 KW standby diesel engine driven generator and incidental interior wiring for Plotting Room,

Battery Dunn.....\$ 6,665.51



REPUL OF COMPLETED WORKS - SEACOAST FORTIFICATIONS
(Fire Control or Submarine Mine Structure)

HARBOR DEFENSES OF LONG ISLAND SOUND.

FORT CAMP HERO, L. I. NEW YORK

STRUCTURE PLOTTING ROOM - BATTERY DUNN

Part II Corrected to 1944 STRUCTURE: Special Lambert
Projection (L.I.) CRUCTURE Special Lambert

C. Structure - Cutside face South

X- 64,457.529 yds.

Valid

Location (by coordinates)

Y- 48,806.940 yds. Location (by site description) ME part of reservation Date of transfer ... 5 January 1944. Cost to that date ___2161_113_69_Project_270_Funds Type (for observing stat.-tower, dug-in, cottage, etc.) Bombproof. Type of construction (a) Roof Goncrete (b) Remainder of bldg. Concrete T How concealed Earth fill & Vegetation How protected Bombproof Concrete & Sand Fill Height above concealment None Height above protection None UTILITIES: Electric Power..... Source ofFortification & Diesel Gonerator Characteristics: Voltage ... Ac or -BG... Phase 3. Kilowatts required 30 Type of lighting fixtures Commercial Standard - CSF Heat How heated Coal Fired Boiler, Hot Air, Auto-Stoker Mater Sewer Connected to water mains Connected to sewer Septic tank & tile drain field Type latrine None Freeze - Pressure Tanks Fin. Floor El. 52.00 REFERENCE: Reference of site Mean Low Water Reference of instrument axis None (Type and Capacity of Crane None where (Mix. dia. of real-tandled applicable

STRUCTURE PLOTTING ROOM - BATTERY DUNN S
INSTRUMENTS & EQUIPMENT
Type of observing inst. None Type of plottin; board M4
DATA TRANSMISSION:
Type Telephone, Radio & Data Computor Date of transfer
TIDE STATION: Give description of tide gauge
DATUM POINTS: Give Forts from which visible
QUARTERS: Give stations served
CABLE HUT: Give S.C. Type

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Roll roofing 1"Gypsum board 2:0" 2'x 4 12"=4" Studs Conduit & cable frances and plates CI'= 6"brace bolh wall 3:0" 2000 9:9 6:0" Proposed Future Generator 2:0" 2 -8 wood PLAN 2.2.8" mud floor spaced & sills Creosoled HARBOR DEFENSES OF L. I. SOUND FIRE CONTROL STATION SECTION A-A GENERATOR SHELTER UNIT MONTAUK PT, L.I. **NEW YORK**

HARBOR DEFENSES OF L.L SOUND
BATTERY DUNN

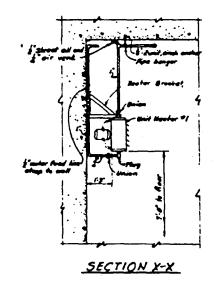
ADDITIONAL DEHUMIDIFYING SYSTEM

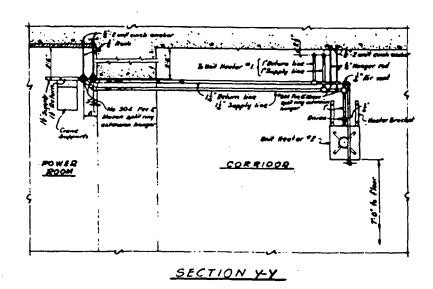
NEW YORK

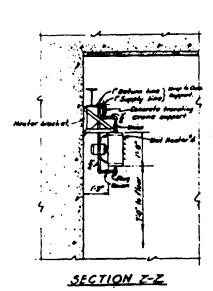
CAMP HERO L.I.

FOUNDER FOODS AND ASSESSED AND ASSESSED ASSESSED

PLAN

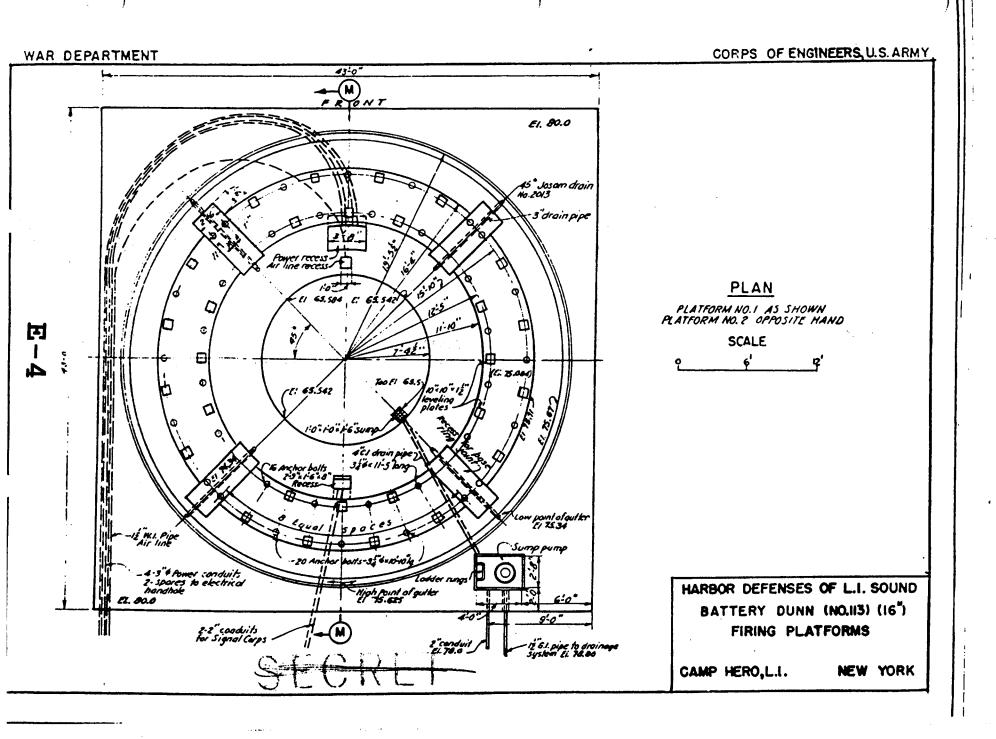






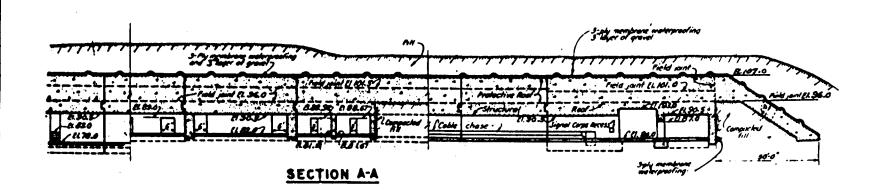
POWER ROOM HEATING SYSTEM

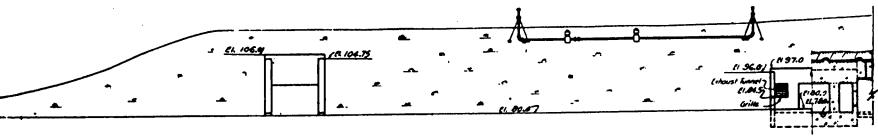
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WAR DEPARTMENT

CORPS OF ENGINEERS, U.S.ARMY





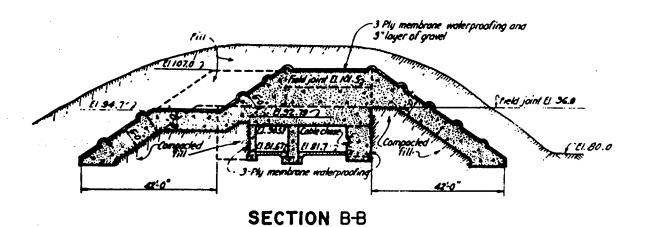
REAR ELEVATION

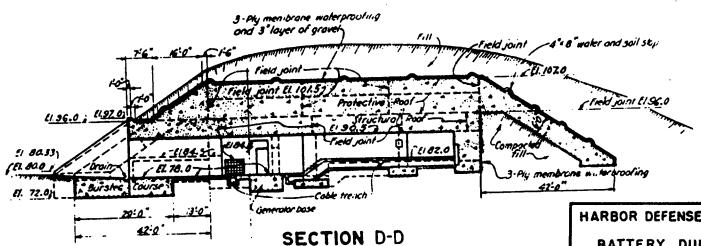
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HARBOR DEFENSES OF L.I. SOUND BATTERY DUNN NO.113 (16") CENTRAL TRAVERSE MAGAZINE

0 25' 50'

CAMP HERO LI.

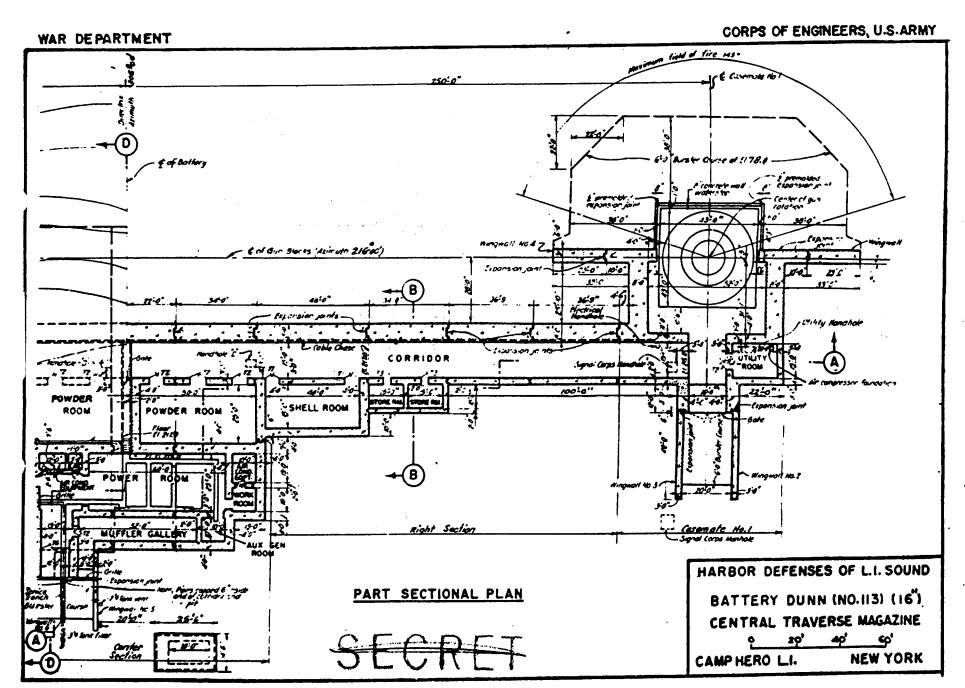


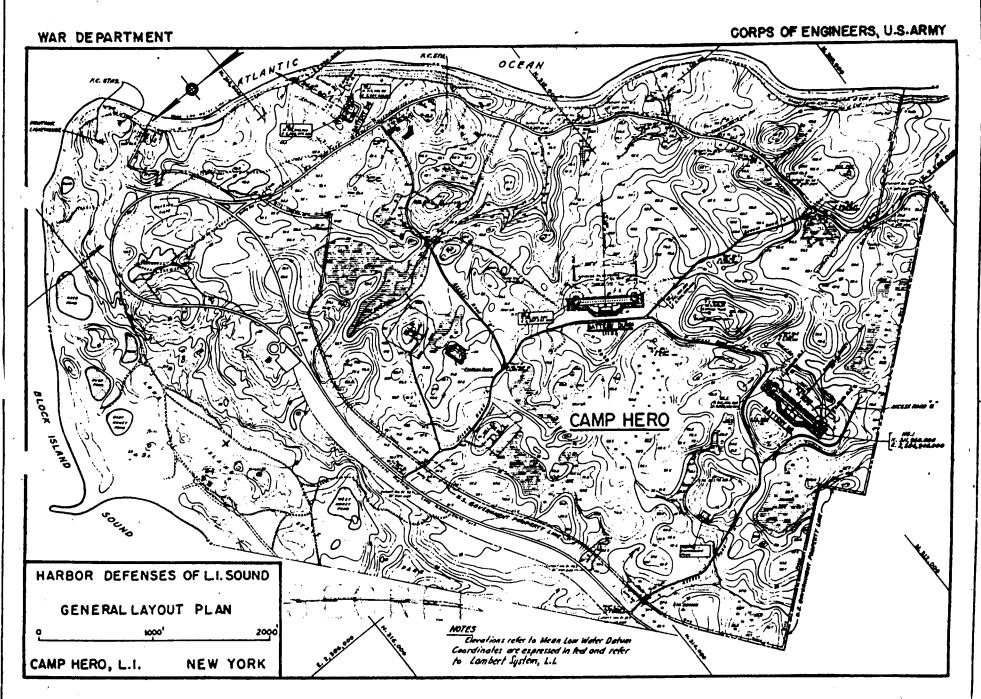


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BATTERY DUNN (NO.113) (16")
CENTRAL TRAVERSE MAGAZINE

CAMP HERO L.I.





Nature & Cast of Additional Repairs & Modifications (Battery Dunn)

1944 - Fower Room Heating

This project consists of the installation of oil fired hot water boiler, induced draft fan.

4 unit heaters and necessary piping.

3 new closures to isolate heated areas as follows: Power Room, Denumidifying Equipment Room, Latrine, Murrler Gallery, Water Cooler Room and Corridor for Battery Dunn.

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2,502.08

1944 - Additional Dehumidification System.

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COMPLETED WORKS - SEACOAST FORTIFICATIONS REPORT

HAMBOR DEFENSES OF LANGUAGE YORK. BATTERY DUNN No. of Gurs 2

Date of Safe A State of Calibor 16" Carriage Barbette

(Batteries) Anymon from the property of the som 48 fel caserfal Part I Corrected to 2 9 SEPT.1944

GENERAL:

23 March 1942 Battery commenced 5 June 1943 Battery completed

12 January 1944 Date of transfer

Cost to date of transfer \$1.369,528.61 Project 270Funds

interials of construction Reinforged Concrete

Battery new or modernized ... New

(If modernized give detailed statement

on reverse side)

Trunnion elevation in btry. El. 85.73. M. L. W.

Datum plane Mean Low Water.

UTILITIES:

WATER SUPPLY

Source of Mells

Alternate source None

Size of Main ...6" Transite

Connected to sewer Yes (Reservation System)

Type of Disposal Septic Tank & Chlorination

Type of Latrine Flush Type

UTILITIES (Contid.)

ELECTRIC POWER

Sources of Commercial & Engine Generators . . Procured & installed by (QDE or ORD).....

Characteristics: Voltage ... Ac or DG ... Phase 36

No. of units and capacity 3 - 375 XVA

Max. K.W. required for utilities 72

Commercial power provided (yes or no) Yes Capacity 75 KVA

Auxiliary power unit provided (yes or no) " Capacity

Type of lighting fixtures Commercial Standard - CSF

Dehumidifying Unit. Make and capacity

Rooms Tet or Dry Dry How ventilated Vent shafts(Latrines)Exhaust fans(Room)

How heated Oil Fired Forced Hot Water - Unit Heaters

<u>DATA TRANSHISSÍÖN</u> Telephones

REMARKS *Commercial power procured and installed by

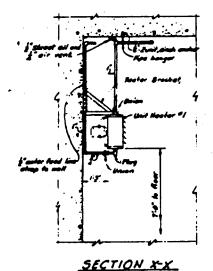
O.C.E. Generators by Ordnance.

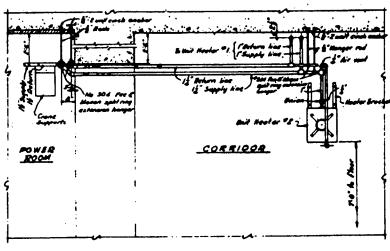
**450/208/120

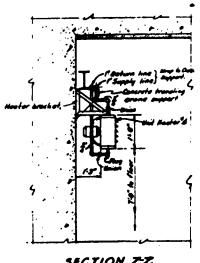
2 Systems using Carrier 743 - 3 Ton Compressors & 39Q2 Conditioners. + 3 H.P. Dehumidifying units in

					<u> </u>	ain corr	idors.	-		
Emplacement No.	Cal.	Length	Model	Scrial No.	Monufacturer	Mounted	Турз	Model	Carria Sorial No.	Manufacturer Motor
1 2 2	16"	681	Mark 11	48 45	Midvale Steel c Ordnance Co. Midvale Steel c Ordnance Co.		Barbett		27	Matertown Arsenal 1945 Gen. Elect. Induction Arsenal 1945 Motor- Type 5KF

F= 12,789,496,1378,1434







SECTION Y-Y

SECTION ZZ

POWER ROOM HEATING SYSTEM



HARBOR DEFENSES OF LL SOUND BATTERY NO. 112 (16") CENTRAL TRAVERSE MAGAZINE CAMP HERO, LJ.

WAR DEPARTMENT GORPS OF ENGINEERS, U.S.ARMY 36-11 6" & Curb plate 7 El. 75.00 £1.71.458 Jutside circle bolts ELTOTE ELTER Inside circle bolts E1 70.67 11 (174,004) rield joint El 70.67 X 67, 63.34 E1.68.084 3"Gutter drain steve 3-0 long Gol Keys 17-10 Slope floor to sumo Field joint El. Co.5 ELBROO7 16- 3'0 " 6'0" 8 Keys uniformly spoced "It Brass rod 6"long, top flush with finished flow. Purch morked for exact center of gun black HARBOR DEFENSES OF L.I. SOUND SECTION MM BATTERY NO. 112 - (16") FIRING PLATFORMS CAMP HERO, L.I. NEW YORK

CORPS OF ENGINEERS, U.S. ARMY WAR DEPARTMENT 43-0" FRIONT El. 75,00 45° Josam drain No. 2013 3 drain pipe Air line recess PLAN ZI. 60.542 EI 64 584 PLATFORM NO.1 AS SHOWN PLATFORM NO. 2 OPPOSITE HAND SCALE 曰 4 בוי מים [1.60.542 Low point of outer Sump pump 4-3" Fower conduits
2-spaces to electrical
handhole HARBOR DEFENSES OF L.I. SOUND High Munt of guiller EL 70.625 BATTERY NO.112 (16") El. 75.00 FIRING PLATFORMS 2-2" cooduits
for Signal Corps 2"conduit - 17 6.1. pipe to drainage System E: 73, 80 NEW YORK CAMP HERO, L.I.

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SECTION C-C

SECRET

HARBOR DEFENSES OF LL SOUND

BATTERY NO.112 (16")

CENTRAL TRAVERSE MAGAZINE

CAMP HERO L.I.

CORPS OF ENGINEERS, U.S.ARMY

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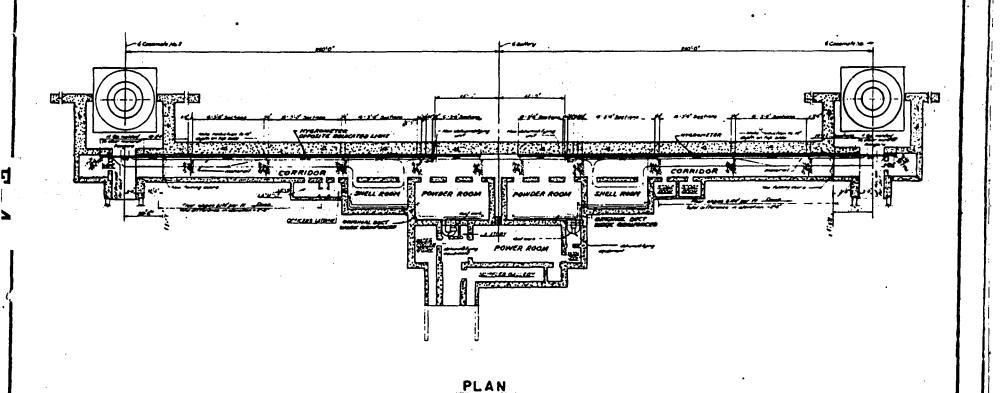
HARBOR DEFENSES OF L.I. SOUND

BATTERY 112

ADDITIONAL DEHUMIDIFYING SYSTEM

NEW YORK

CAMPHERO LI.



REPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS (Batteries) In your form of the first HATEOR DEFENSES OF LONG ISLAND SOUND. FORT- CAMP HERO, L. I., NEW YORK BATTERY NO. 112

Sources of ... Commercial 4. Engine Generator. Procured & installed by (OCE or ORD).

Characteristics: Voltage ** Ac or DG ... Phase .36.

No. of units and capacity 3 - 375 KYA.....

Max. K.W. required for non-battle conditions 72

Auxiliary power unit provided (yes or no) No Capacity Type of lighting fixtures Commercial Standard - CSF

How ventilated Vent shafts(Latrines) Exhaust fans (Room

Commercial power provided (yes or no) Yes Capacity 75 KVA

Max. K.V. required for utilities ***72

No. of Guns 2 Caliber 16" Carriage BARBETTE

of White

GENERAL:

Battery commenced 25.Merch 1942. Battery completed 5 June 1943

Date of transfer 12 January 1944

Cost to date of transfer \$1,369,528.61. Project_270

hterials of construction Reinforced Concrete Battery new or modernized . New

(If modernized give detailed statement

on reverse side)

Trunnion elevation in btry. Ela. 81.75. M. L. W. . . . Datum plano Mean Low Water

UTILITIES:

WATER SUPPLY

Alternate source None

Size of Main 6"0 Transite

SEWER

Connected to sewer Yea. (Reservation System)

Type of Disposal Septic Tank & Chlorination. Typo of Latrine Flush Type

REMARKS Engine Generator procured & installed by ORD. Commercial Power facilities installed by O.C.E. ** 450/208/120 Volts.

***Troludes Lighting & Power in Reservoir F.C.
Station & Plotting Switchboard

ARMAMEL T *2 Systems Using Carrier 7K3 - 8 Ton Compressors 4 3902 Conditioners + 3HP Dehumid units inmain corridors. Mounted Type Model Serial No. | Manufacturer Motor Emplacement Cal. Serial lo. Length Model Manufacturori No. Bar-440 V. 16" Watertown U.S. Naval Yes 188 Mark II 92 bette Arsenal 1945 Gen. Elect Factory, N.Y. Type KF 16^w 681 73 Methlehem Steel Yes Bar-¥4 43 440 V. Watertown bette Co. Arsenal 1943

AT 12,189, 200, 1372, 424

DATA TRANSHISSION

UTILITIES (Cont'd.)

ELECTRIC POWER

How heated Oil Fired Forced Hot Water-Unit Heaters...

Dohumidifying Unit. Make and capacity

Type KF

Nature & Cost of Additional Repairs & Lodifications	(Battery	No.	112

1944 - Power Room Heating

This project consists of the installution of oil fired hot water boiler, induced draft fan.

4 unit heaters and necessary piping.

1944 - Ordnance Switchboard Connections

This project sonsists of connection of outside distribution feeders, commercial power supply and Battery wiring to Ordnance Switchboard. Lighting facilities for Switchboard.

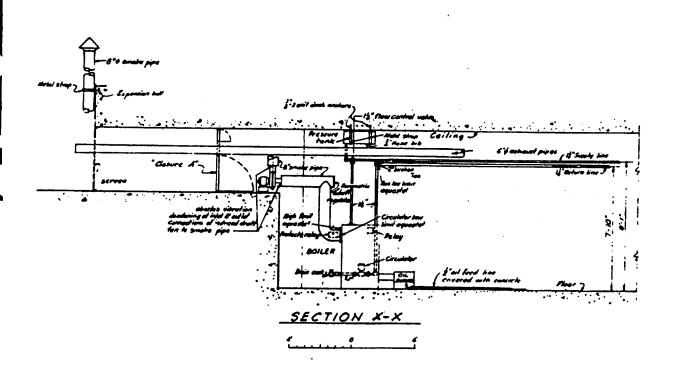
1944 - Additional Dehumidification System

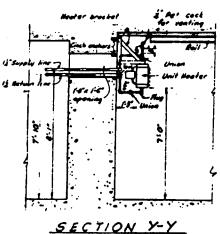
This project consists of installation of 2 self-contained dehumidifying units with 3 H.P. compressor. Necessary wiring, duct-work, condensate piping and closures for corridors.....\$10,210.00

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17.





POWER ROOM HEATING SYSTEM

HARBOR DEFENSES OF L.I. SOUND BATTERY 216 (6") CENTRAL TRAVERSE MAGAZINE

CAMP HERO LI.

H

PLAN PLATFORM NO.1 AS SHOWN PLATFORM NO.2 OPPOSITE NAND SOLIE: W FORT HARBOR DEFENSES OF L.I. SOUND

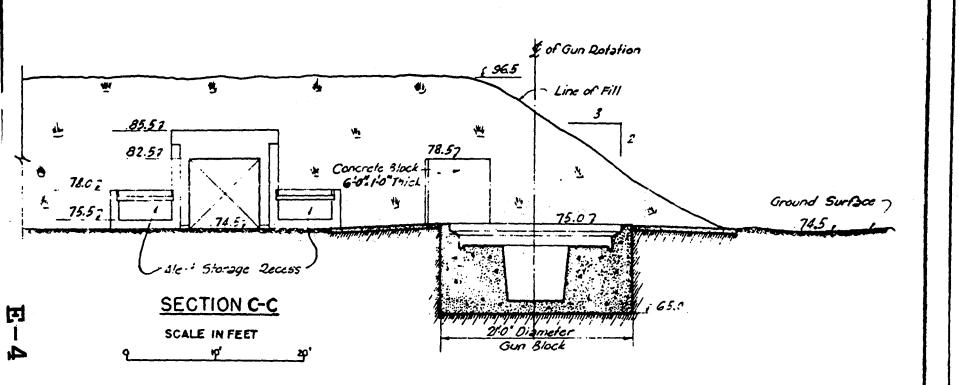
BATTERY NO. 216 (6")

CENTRAL TRAVERSE MAGAZINE

CAMP HERO, L.I.

NEW YORK

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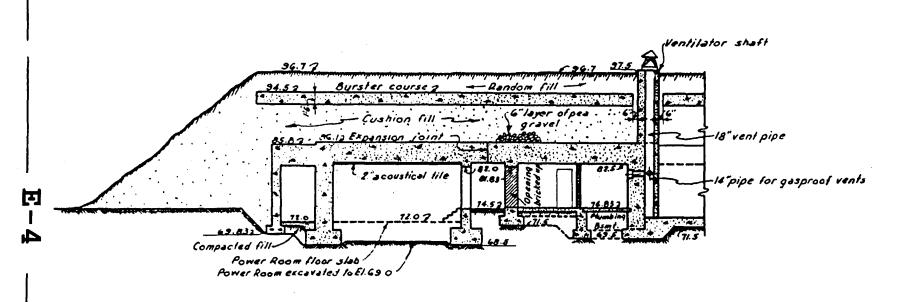


HARBOR DEFENSES OF L.I. SOUND

BATTERY NO. 216 (6")

CENTRAL TRAVERSE MAGAZINE

CAMP HERO, LI. NEW YORK



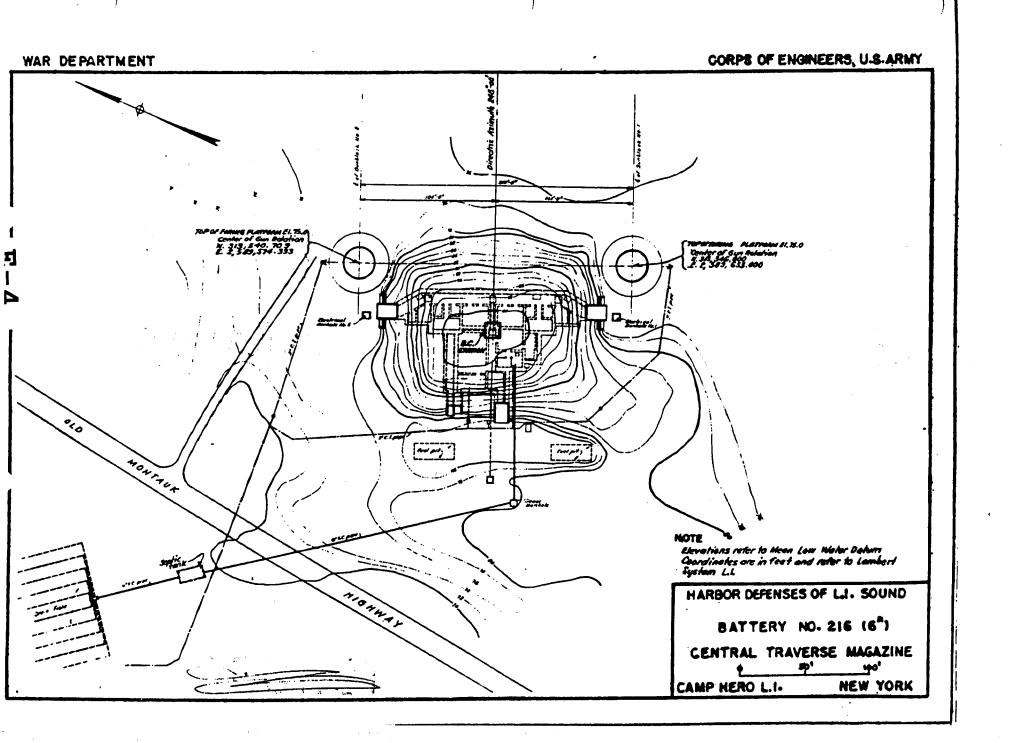
SECTION E-E

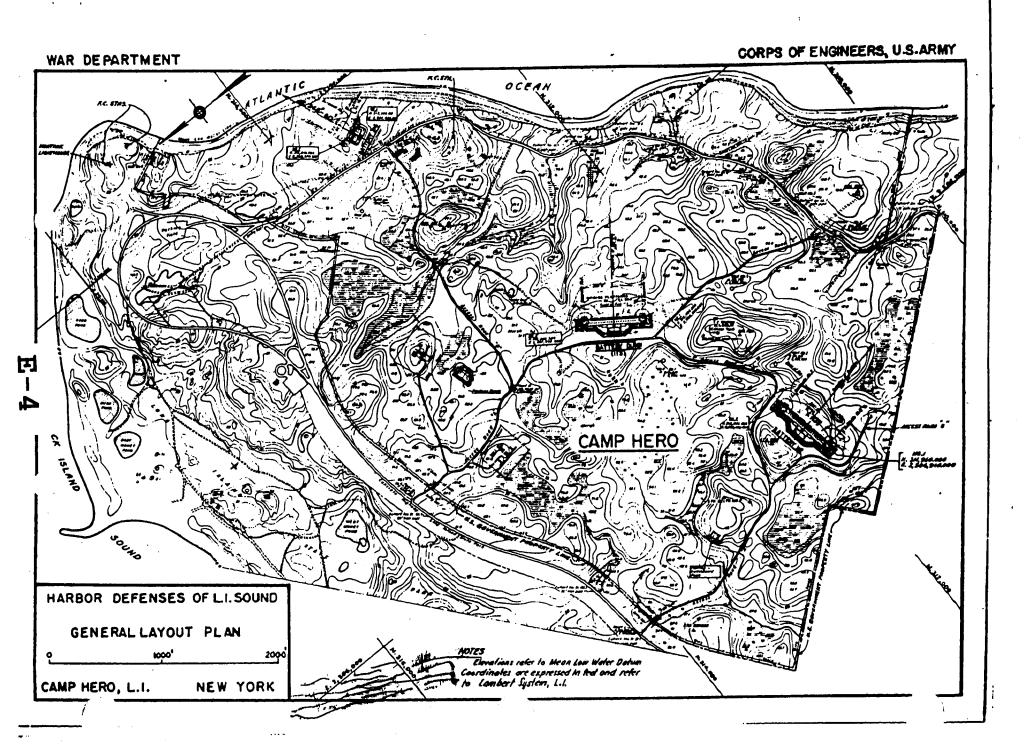
HARBOR DEFENSES OF L. I. SOUND
BATTERY NO.216 (6")
CENTRAL TRAVERSE MAGAZINE
O 6' 12' 16'

CAMP HERO, L.I

NEW YORK

WAR DEPARTMENT





EPORT OF COMPLETED WORKS - SEACOAST FORTIFICATIONS (Batteries)

HARBOR DEFENSES OF LONG ISLAND SOUND

PORT- CAMP HERO, L. I. NEW YORK

BATTERY No. 216 No. of Gums 2

Colliber 6" Carriago Berbette.

art I Corrected to 4 may 1945.

ENERAL: Battery commenced 26 May 1942... Battery completed 18 June 1943 Date of transfer 12 January 1944 Cost to date of transfer \$198.008.51 sterials of construction Reinforced Congrate Battery new or modernized New (If modernized give detailed statement on reverse side) Trunnion elevation in btry. El. 78.70 M.L.W..... Datum plane Mean Low Water TILITIES: WATER SUPPLY Source of Alternate source Size of Main 6" Transite **ERER** Connected to sewer no Type of Disposal Septic tank & drain field

Flush Type

Type of Latrine

UTILITIES (Cont'd,)

Procured & installed by (OCE or ORD).

Characteristics: Voltage 50 Ac 20 Phase 3

No. of units and capacity 3 - 187 KVA each

Max. K.W. required for utilities 37.5 KVA

Max. K.W. required for non-battle conditions 25 KVA

Commercial power provided (yes or no)Yes Capacity 45 KVA

Auxiliary power unit provided (yes or no)No Capacity

Type of lighting fixtures Commercial Standard - CSF

Dehumidifying Unit. Make and capacity Carrier 50-N-4**

Rooms Tet or Dry Dry (Except Powder & Shell Rooms)

How ventilated Vent Shafts & Doorways.

How heatecall Fired Forced Hot Water-Unit Heaters.

DATA TRANSHISSIN

REMARKS

& Latrine only.

Generators by Ordnance; Commercial Power by O.C.E.
Ton self contained conditioner (for Plotting Room

					ARMAMENT						<u>-</u>	
Emplacement No.	Cal.	Length	Model	Scrial No.	Manufacturer	Mounted	Тура	Model .	Carriag SScrial No.	mes Manufacturer	Motor	
1 2	6"	310 "	1903	31	Matervliet Arsenal 1943	Yes	Barbett	e Wl	97	Wellman Eng. Co. 1943	Size 5 Type B	
3 点 !	6"	310"	A2	1	Watervliet Arsenal 1943	Yes	*	w .		Wellman Eng.		
4	· i	1	1	- CE	i Consu n		ļ		•	1	Type B	7_

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HISTORY OF the

2 MAY 1977

773rd AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero, Montauk, Mew York

FOR THE PERIOD

(1 January -- 31 January 1951)

CHAIN OF COMMAND

26th AIR DIVISION (DEFENSE)

EASTERN AUR DEFENSE FORCE

AIR Defense
CONTINENDAL THE COMMAND

UNITED STATES AIR FORCE

COMPILED BY:

APPROVED BY:

WILLIAM E..MOORE Captain, USAF Historical Officer EMANUEL A. PELAEZ Capt., USAF Commanding

.. Jar., 13 Dec <u>1</u>97<u>3</u> Tarado

2 MAY 1977

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CHAPTER I.

ORGANIZATION AND MISSION

During the reporting period 1 to 31 January, 1951, the 773 rd Aircraft Control and Warning Squadron remained stationed at Camp Here, Montauk, Long Island, New York. There was no change in the assigned mission of the Squadron and normal operations were conducted during the month in accomdance with hours prescribed by the 26th Air Division. Electronic and Communications equipment was operational for the entire period and no major difficulties or breakdowns were encountered.

On January 25th Major Kelley and Lt Agins, 26th Air Division, and Captain Fields, 503rd AC & W Sq, arrived at the squadron for two days TDY on matters pertaining to Air Defense Operations. A more detailed account of their visit will be found in Chapter VII.

On Jasuray 26th Major Conner of the 69th AA Battery, Ft. Totten, N.Y. visited the Squadron and discussions with Squadron officeRs
were conducted concerning policies to be set up, facilities available at Camp Here etc, for the AA training battery to be located
in the Squadron area. A permanent cadre will be quartered at Camp
Here and continuous training will be conducted for Regular Army
AA personnel. Buildings unused by the 773rd AC & W Sq will be made

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available to the 69th AA Battery and they will begin their training when Battery equipment arrives at Montauk. The full cooperation of the 773rd was assured the 69th AA Battery.

During the month Captain Yaworsky and Captain Winters, 26th Air Division Controllers made an inspection of operations. Air Defense matters and operations problems were discussed with the Squadron duty controller.

CHAPTER II

PERSONNEL AND ADMINISTRATION

The critical shortage of officer personnel as previously reported was somewhat alleviated by the assignment during the month of 3 officers. One officer was transferred during the month. However, officer strength continues well below that authorized for the Squadron and still urgently needed are an Adjutant, a Supply Officers and Controllers Two Controllers were assigned which helped offset the less of the Chief Controller transferred the first part of the month. Airmen strength increased slightly during the month and there were no critical shortages of skilled SSN's.

Authorized strength for the squadron is 16 officers and 179

Airmen. Actual strength of the Squadron at the beginning of the month was as follows:

OFFICERS 8 (White) AIRMEN 163 (White- 150) (Colored 13) S. 10 . . .

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By Auth. Squadron Comdr.

773d AC. Squadron

Datel4 Mar 51 Initials

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HISTORY OF

883D AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero, Montauk, New York

FOR THE PERIOD

(1 February -- 28 February 1951)

CHAIN OF COMMAND

26TH AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE FORCE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED BY:

APPROVED BY:

WILLIAM E. MOORE CAPTAIN USAF HISTORICAL OFFICER EMANUEL A. PELAEZ MAJOR USAF COMMANDING

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In visiting and inspecting each section, discussions

were held with the various section heads and local recommendations were made by the inspecting Officers. A thorough analysis of operations was made and problems pertaining to Air Defense matters were discussed at length and many helpful suggestions and recommendations were a result of the visit. Certain recommendations concerning actual operations which have been adopted will be discussed in Chapter IV.

In the January History mention was made of the impending arrivial of Units of the 69th AK Battalion, Ft. Totten, N.Y. at Camp Hero. The first units arrived during the first week in February and practice firing started as soon as the 90mm AA guns had been positioned. Although weather hampered their operation, all batteries of the battalion were able to complete the required number of practice rounds by the 23d of the month. Facilities were not available to house the entire battalion, so two batteries.at a time bivouaced at Camp Hero, fired the required rounds and then returned to Ft. Totten, making way for two more batteries. The batteries were thus rotated until all firing requirements had been met by the battalion. Tow target planes from Otis AFB and NAS Floyd Bennett were utilized forfiring problems for the 90's and radio controlled "drones" were targets for the multiple 50 caliber machine guns. Although there was no Official tie-up with the AA battalion and the 773d AC&N Squadron, lisson was established between Squadron

operations and the Battalion CP. The purpose and handling of this liason will be discussed in more detail in the operations Chapter.

and will be completely taken over by the Army as soon as the Squadron moves to its new site, still under construction. At this time there is no indication of any official operational association with the 69th AA Battalion. The site now occupied by the 773d will be used as a training area only by the Army. It has not been possible to determine definite Army Plans for future practice firing. The only Army personnel remaining at Camp Hero on the 28th of Feb was a caretaker force. Before pulling out for Ft Totten, however Colonel Kerr, Commanding Officer of the mattalions, indicated that batteries of 120mm AA guns would be arriving at Camp Hero late in March or early in April to conduct practice firing. Future activity of the Army at Camp Hero will be reported in subsequent histories.

CHAPTER II

PERSONNEL AND ADMINISTRATION

The assignment of five Officers during the reporting period substantially relieved the critical shortage of Officer personnel as noted in previous histories. Two Controllers, Two Communication Officers and one Radar Officer were assigned, bringing Officer strengh up to 14. Two of the five new Officers were assigned but were not present for duty. One Officer was assigned but orders will be revoked although he was

Space. At the suggestion of Major Gordon and Captain Janek,
26th Air Division, the tote board was eliminated in the preparation of the board for the new grid and a simplified system of
discrepying the information formerly put on the tote board has
been put into effect. This follows the system in use at Roslyn
and other stations.

During the time the 69th AA was in operation, a direct line from Squadron Operations to the AA CP was utilized for close liason. When batteries were ready to practice fire, the C.P. called operations for clearance. Scopes were checked to see if any A/C might be entering the firing area but in giving clearance the 773d was not assuming responsibility for A/C in the area. Operations also notified CAA, the ADCC and other stations when firing was being conducted.

CHAPTER V

· COMMUNICATIONS

Communications equipment performed exceptionally well during the reporting period. Six noise limiter kits were received and installed in BC-639-A VHF receivers and the installation of noise limiters in all VHF receivers has now been completed.*4

The equipment performed very well. Two new VHF antennas were received during the month and installed for use with the SCR 624 radio sets.*5 The 624s have never proved very satisfactory

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Fage Monthly electronics field engineers report-Incl 1 Part II *5 Monthly electronics field engineers report Incl 1 Part II & III Page 1 & 2.

evident. The new Squadron area is fast nearing completion and with the exception of the operations building and lack of mess equipment for the new mess hall the majority of the buildings will be ready for occupancy in few weeks time. Definite date for moving has not been set but everything indicates that the Squadron will have to move into buildings in a piecemeal fashion as they are completed and the Squadron will undoubtedly have to live in the new area and mess and operate in the present area for some time to come. The present Squadron area has already been turned over to the army and they are most anxious to be able to make use of the buildings now occupied by the Air force. Movement to the new area had not started during this reporting period.

CHAPTER IX

INTERNAL SECURITY

A general tightening up of all security was effected during the period reported. Squadron Air Police were intemmively instructed throughout the month by their section head in security measures and the effectiveness of this emphasized program was noticeable. The Air Police Force consists of 14 Airmen and the APs work 8 hour shifts with the same hours scheduled as all other sections, with the exception of administrative personnel. The AP shifts are from 8 AM to 1600--1600 to 2400--0001 to \$800etc.

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HISTORY OF

the

773rd AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero, Montauk, New York

FOR THE PERIOD

(1 March -- 31 March 1951)

CHAIN OF COMMAND

26th AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE FORCE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED BY:

WILLIAM E. MOORE CAPTAIN USAF HISTORICAL OFFICER APPROVED BY:

EMANUEL A. PELAEZ MAJOR USAF COMMANDING

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On March 13th several Officers from ADC and MADF conducted an acceptance inspection of the new Squadron area. Participating Officers were Lt. Colonel George E. Hunsucker, Captains Allen, Smith and Hoffman of ADC and Lt Colonel Charles H. Price, Najor J.E. O'Ecole of EADF. Also visiting on the 13th and 14th was Captain Graham C. Beacum, 26th Air Division, in connection with Air Installations in the new area.

On Narch 22d, Lt. Barrett R. Agins, 26th Air Division, wisited Squadron Operations and discussed ECM with the Senior Director and Director on Duty. Lt. Agins also assisted in an ECM demonstration by a B-25 aircraft on the same day.

Lt. Thomas R. Michael arrived at the Squadron late in the Month and discussed matters pertaining to medical administration with the Commanding Officer and the Squadron Medical section.

On March 27th Major Eugene Marray, 26th Air Division Chaplin, arrived for a visit of several days.

Captain Peter J. Filorimo, 26th Air Division Identification Officer, visited for 3 days beginning March 29th and inspected indentification procedures. Various recommendations were made and adopted during the course of his visit.

As re-orted in the February History, it was expected that the 69th AA Battalion would again be active at Camp Hero towards

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^{#2-}See Chapter VIL on training for detail
#3-See Chapter X on Special Subjects for Detail

^{#4-}See Chapter IV on Operations for detail.

the end of Narch. On March 30th units began arriving at Camp Hero but as of the 31st of March only one battery of 90mm anti-Aircraft guns had arrived and practice firinghad not commenced. It is anticipated that additional batteries of the battalion will arrive for practice firing and all actual firing activity etc., will be covered in subsequent histories.

CHAPTER II

PERSONNEL AND ADMINISTRATION

Assignments of Officer and Airman personnel during the month, considerably relieved the shortages reported in previous months!

The assignment of an Adjutant has offset one of the most critical shortages and has greatly relieved the pressure placed on the Administrative Section in general. Although strength figures as of the 31st of March show that the authorized number of Officers are assigned, three of these Officers were not present for duty, with two Officers in school and the orders being revoked on the third. One of the Officers in school is a controller and after his 16 weeks TDY will undoubtedly be reassigned. His loss will be offset by the other Officer now in school who is assigned and on completion of the Controllers course will report for duty. At the present time there are four directors and a senior director available for duty which indicates the need for the assignment of additional 1014s. The radar and communications sections

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and the only personnel who did not receive training were men on leave, men hospitalized and men AWOL or in the hands of the authorities. The subjects presented closely followed the yearly forecast. A security period scheduled was taken over by Captain Smith, 26th Air Division, who thoroughly discussed general security measures and division security procedures.

machine guns as part of the Ground Training for the month. The subjects presented and names of personnel attending and names of instructors are indicated on the attached Training Forecast for the period March 1 to March 31st which has been completed.

Lt. Agins, 26th Air Division, spent a day with the Schudron and assisted in a demonstration of Airborne jamming. Two B-25s participated in the jamming and all operations and radar maintenance personnel, in addition to errors on duty, witnessed the demonstration. CW noices, Window type and VHF jamming was demonstrated Operators were able to effectively detect and track both aircraft through the jammed areas.

The first training manuals for the new individual training program were received on the last day of the month and the required lessons for all AC&W personnel are to be started immediate-

^{#19-}Oseund Training Schedule From 1 March to 31 March 1951 -Exibit 3.

SEGRET

HISTORY OF

the

773D AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero, Montauk, New York

FOR THE PERIOD

(1 April --- 30 April 1951)

CHAIN OF COMMAND

26TH AIR DIVISION(DEFENSE)

EASTERN AIR DEFENSE FORCE

AIR DEFENSE COMMAND

UNITED STATES AIR FORCE

COMPILED BY:

WILLIAM E. MOORE CAPTAIN USAF HISTORICAL OFFICER

APPROVED BY:

EMANUEL A. PELAEZ MAJOR USAF COMMANDING

SECRET

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attended by members of the inspection team and the Commanding Officer and Section Head Officers of the Squadron. Discrepencies found in the various sections were discussed and a general rating was determined for the Squadron.

As reported in the March History, units of the 69th AA

Battalion arrived at Camp Hero on March 30th and 31st and proceeded to set up for a two week period of practice firing. One
battery of 90 mm AA guns was set up and practice firing commenced on May 1st. A field phone was installed in the Squadron Operations room connecting Squadron ops with the AA CP and clearances were requested by the AA and given by operations before
firing began. Practice firing continued until two Batteries
had completed firing requisites. On completion the battery
returned to Fort Totten, leaving a caretaker force in the area.

CHAPTER II

PERSONNEL AND ADMINISTRATION

Additional assignments of Officer and Airmen personnel during the reporting period have brought Equadron strength close to that authorized under existing T.O. Three Officers were assigned and one Officer was transferred. The officer transferred had been assigned but had not been present for duty, and one of the newly assigned officers will not be present for duty until he begins and completes the Controllers Course at Tyndall Field. One Radar Officer and one Director were assigned and reported for duty during the

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HISTORY OF

773rd AIRCRAFT CONTROL AND WARNING SQUADRON

Camp Hero. Montauk. New York

FOR THE PERIOD

(1 May ___ 31 May 1951)

CHAIN OF COMMAND

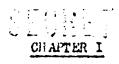
26th AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE FORCE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPTIED BY:

WILLIAM E. MOORE CAPTAIN USAF HISTORICAL OFFICER AEPROVED BY
Tobert W. DEVENISH
CAPTAIN USAF
COMMANDING

SECRET

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ORGAN IZATION AND MISSION

During the reporting period 1 May to 31 May 1951 the 773rd Aircraft Control and Warning Squadron remained stationed at Montauk, Long Island, New York. No change on the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Defense). Electronic and Communication equipment was operational for a greater part of the period on a 24 hour basis and only one major breakdown occured.

On May 8th General Minty accompanied by Colonel Murphy, O9th AAA
Battalion, Ft. Totten, H.Y., visited the Squadron. General Minty and Colonel Murphy inspected Squadron operations briefly and the Colonel was given a short briefing on operational procedures. Following the visit to operations the visitors observed practice firing by a battery of 90 mm. anti-aircraft artillery, List AAA Battalion., Ft Totten, N.Y., and then proceeded to visit the new Squadron area. The Visitors returned to Division Head-quarters late in the afternoon of the 8th.

Units of the 41st AAA Battalion arrived at Camp Hero from Fort Dix on the 4th of May and set up batteries of 90 mm guns for purposes of practice firing. Two batteries of battalion arrived the week of the 4th and two more batteries arrived the week following. During their stay strength maintained by the Battalion was approximately 300 men. When firing requisites had been met, the batteries received orders to proceed to a new duty station, Fort Hancock, New Jersey.

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On the 23rd of May the 536th AAA Battalion arrived from Fort Totten. The mission for the batteries of this battalion was practice firing of 120 mm anti-aircraft artillery, and it was anticipated that the firing requisites would not be completed until early in June. As of the 31st of May approximately 500 men have been stationed at Camp Hero and a total of 750 men are expected to participate in the firing exercises. Firing activities have been coordinated with Squadron operations and a field phone connecting Operations with the AA Command Post was installed so that warning could be given of any aircraft entering the firing area to the AAA. Squadron Operations was notified prior to firing and when guns were secured. When firing has been completed the unites of the Battalion will return to Fort Totten.

On May 20th and 21st a total of 21 officers from the 118th Ftr Interceptor Squadron, Suffolk County Airport, visited Squadron Operations.

Major Spencer, Commanding Officer of the Squadron, and Captain Mathaway,

Squadron Operations officer, were among the visitors from Suffolk, as well

as Lt. Simon, Communications Officer for the Squadron.*2

The move to the new Squadron area started on May 15th and the official address of the Squadron is now Montauk, not Camp Hero, Montauk, although operations and communications are still operating in the Camp Hero area. •3

CHAPTER II

PERSONNEL AND ADMINISTRATION

During the reporting period Officer strength increased slightly while

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^{*}I - See Communications - Chapter V for detail

^{*2 -} See Chapter 4 for more detail

^{*3 -} See Chapter 8 for more detail

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Date 13 July 1951

HISTORY OF

the

773D AIRCRAFT CONTROL AND WARNING SQUADRON
Montauk, New York

FOR THE PERIOD

(1 June - 30 June 1951)

CHAIN OF COMMAND

26TH AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED I:

WILLIAM E MOCRE CAPTAIN USAF HistoricalOfficer APPROVED BY:

EMANUEL A. PELAEZ
MAJOR USAF
Commanding

E-10 SECRET

CHAPTER I

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Initials

Date 13 July 1951

ORGANIZATION AND MISSION

During the reporting period 1 June to 30 June the 773d Air-Craft Control and Warning Squadron remained stationed at Montauk, New York. No change in the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Defense). Electronic and Communication equipment was operational for the entire period on a 24 hour basis and no major difficulties or breakdowns occured.

The units of the 536th AAA Battalion, which arrived at Camp Hero late in the previous month, completed their firing requisites in the first week of the reporting period and personnel returned to Fort Totten with the battery of 120mm Anti-Aircraft guns which had been practice fired during this training period. At the time of departure for Fort Totten, the Army indicated that there would be no further firing at Camp Hero until the second weak of July, when they anticipate a return to the practice range with a full Battalion of 120mm Guns.

On the first of June, Major Adams, EADF Special Service Officer, and Captain Mucci, 26th Air Division Special Service Officer, visited the Squadron and conducted an investigation of Squadron Special Service facilities.

Colonel Hanford, of the Judge Advocate General's Office,

EADF, and Lt. Simon, 26th Air Division legal officer, arrived at
the Squadron for a meeting with the Commanding Officer.

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HISTORY OF

the

773D AIRCRAFT CONTROL AND WARNING SQUADRON Montauk, Long Island, New York

FOR THE PERIOD

(1 September - 30 September)

CHAIN OF COMMAND

26TH AIR DIVISION (DEFENSE)
EASTERN AIR DEFENSE
AIR DEFENSE COMMAND
UNITED STATES AIR FORCE

COMPILED BY:

WILLIAM E. MOORE CAPTAIN USAF Historical Officer APPROVED BY:

EMANUEL A. PELAEZ
MAJOR USAF
Commanding

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CHAPTER I

START

ORGANIZATION AND HISSION

During the reporting period 1 September to 30 September the 773d Aircraft Control and Warning Squadron remained etationed at Montauk, New York. No change in the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Defense). Electronic and Communications equipment was operational for the entire period on a 24 hour basis and no difficulties or breakdowns of major proportions occurred.

The 703d AAA Battalion which arrived at Camp Hero in August for practice firing departed on the 19th of September, and on the 20th of the month units of the 41st AAA Battalion arrived at the training site and began setting up for their firing period. At the end of the reporting period this battalion was still in the process of conducting firing problems. The 773d AC&W Squadron operations maintained close liason with the Command rosts of the battalions mentioned by means of a field phone so that air traffic could be cleared through the danger area when necessary, and that squadron operations could be advised of all firing activity.

A number of officers visited the squadron during the month conducting inspections of new area installations and for the purpose of visiting operations and discussing current operational and administrative matters.

CHAPTER VII.

TRAINING

The squadron Training Program for the month of September consisted of Ground Training and Technical Training. Squadron attendance at the four weekly programs was 77%, a drop of 4% in attendance under the previous months attendance figure.

The material covered in the programs presented closely adhered to the training forecast as prescribed by the 26th #10 Air Division.

During the month targets for qualification firing of the 445 automatic were set up and utilized and qualification firing of the 30. caliber carbine continued.

ECM Training for the month complied with the requirements prescribed by the 26th Air Division and attendance at these periods amounted to 84% of all Operations, Radar, and Communications personnel assigned to the squadren. Two demonstrations of actual electronic jamming were given during the month. Actual jamming, of course, affords personnel the greatest amount of practical experience in detecting and analysing various types of jamming, and all operations personnel now assigned have witnessed at least one actual demonstration.

#10 - Monthly Training Forecast and Troop Training Report - Exhibits III and IV

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HISTORY OF

the

773D AIRCRAFT CONTROL AND WARNING SQUADRON Montauk, New York

FOR THE PERIOD

(1 October - 31 October)

CHAIN OF COMMAND

26th AIR DIVISION EASTERN AIR DEFENSE AIR DEFENSE COMAND UNITED STATES AIR FORCE

- 12-

WILLIAM E. MOCRE

Captain Historical Officer

Commanding

PPROVED BY:

SECRET

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CHAPTER I

ORGANIZATION AND MISSION

During the period reported, 1 October to 31 October, the 773d Aircraft Control and Warming Squadron remained stationed at Montauk, New York. No change in the assigned mission of the Squadron was effected and normal operations were conducted during the month in accordance with hours prescribed by the 26th Air Division (Def). Electronic and Communications equipment was operational for the entire period on a 24 hour basis and no difficulties or breakdowns of major proportions occurred.

The 41st ANA Pattalion completed their firing requisites during the past month and were replaced at Comp Hero by units of the 521st AAN. Firing by the 521st was conducted for the first two weeks of the month and on completion the Battalion returned to Fort Totten and was replaced by the 715th AAA. This Battalion set up their firing line and went into operation on the 25th of the month, and at the end of the reporting period were still practice firing at Comp Hero. Maison with the AAA outfits mentioned was maintained during these periods by means of a field phone connecting this squadron's operations room with the AAA Command Posts. Squadron Operations was advised of all firing activity.

Lt Colonel D. S. Spain and Majors C. R. Fischette, and R. P. Laughry, Headquarters 26th Air Division, arrived at the squadron on October 8th for a staff visit of the present squadron operations and the operations building in the new area. All radar and commun-

Chapter One

Organisation and Mission of the 7734

During the period cevered by this report, from Nevember 1st, 1951 to and including Nevember 30th, 1951, the 773d Aircraft Centrel and Warning Squadren remained stationed at Hentauk, New York. He change in the assigned mission of the organization was effected and normal operations were conducted during the period reported in accordance with hours perscribed by the 26th Air Division (Defense.) Electronics and Communications equipment was eperational for the entire period on a twenty-four hour basis and no difficulties er breakdewns of major prepertiens occurred. The 715th AAA, reported on the October history, was still in training st the start of the menth and did not depart until Nevember 9th. They were replaced on the 12th of Nevember by the 245th AAA Battalien. It became increasingly difficult to manage to keep informed as to the plans of these units at Camp Here. (e.g. whether or not it was safe to vector aircraft through this area,) in as much as they no longer menitored the field telephene line and it was necessary to use commercial lines to contact them. This involved considerable delay especially neticeable when some flight requested information relative to flying in this vicinity. Effort is being made to reestablish the more effective liaison from the squadren eperations reen via field tolophene to the AAA command pests. The 245th departed on the 29th of Nevember and consequently there was no AAA erganization here for the end of the month.

CEONE.

Chapter One

Organization and Mission

During the period covered by this report, from 1st December 1951 to and

Squadron remained stationed at Montauk, New York. There was no change in the assigned mission of the organization and normal operations were continued in accordance with the hours prescribed by the 26th Air Division (Defense.) Electronics and Communications equipment were operational throughout the period reported on a twenty-four hour basis.

In the Army area of Fort Hero, here at Montauk, the 41st AAA Battalion arrived on the 1st of December. They remained until the 11th and meanwhile fired daily employing both towed targets and ECAT (radio controlled aircraft targets.) Once again it is necessary to point out that the

while fired daily employing both towed targets and RCAT (radio controlled aircraft targets.) Once again it is necessary to point out that the
liaison between these army units and our station is not effective; that
is to say that the time needed to determine whether this area is or is not
safe for aircraft missions through it is excessive due to the fact that
the information is not automatic and the line between us is not monitored by the units firing. For the remainder of the month there was no further
AAA activity at this station.

The month was marked by the visits from higher headquarters notably that of Major General Smith accompanied by Brigadier General Minty and Colonels McKinney, Beverly and Sebastian on the 12th. This was a staff visit during which all installations of our station were inspected by General Smith and his party.

HEADQUARTERS FIRST U.S. ARMY Information Section, Bldg. A-6 Governors Island, New York 4, N.Y. Tel: Whitehall 4-7700, Ext. 5136

14 January 1958

RELEASE NO. 15-58

FOR IMMEDIATE RELEASE

LONG ISLAND'S

GOVERNORS ISLAND, N.Y., 14 January....About 120 miles long, with an area of 1"23 square miles, Long Island, New York, has played a vital historical role as one of America's most heavily defended areas.

Geography has placed Long Island in a position of importance for three metropolitan areas in three states. Ever since Now York, New Haven and Providence became important to this country, Long Island and its smaller islands have become militarily important to the three cities.

In the outer ring of an elaborate defense system around these three cities were eight military installations which have been vital cogs in the whoels of the American defense effort, and a key to the changing weapons and missions in the U.S. defense pattern.

Roading from north to south those installations were rich in history, tradition and legond, and yet often unknown to the residents of the area. In the north, Fort Mansfield, in Rhode Island, was 60 acros in size. Fort Trumbull, Connecticut, had an area of 13 acros, 2 rods, 27 poles and 2 links according to the records. Fort Michie, on Great Gull Island, had an area of only 10 acros. Fort H.G. Wright, the "mother" for most of these posts had a total area of 334 acrosmost of Fischers Island. Fort Terry, on Plum Island, was the largest of the eight posts, totaling 797 acros. Fort Tyler, on Gardiners Point totals about 14 acros. Camp Wikoff, which was in the Fort Pend area, had the shortest life, but brief national fame. Camp Here, on the south shore of Long Island at Montauk Point was the most mysterious, the most recently active post and the most heavily camouflaged.

Fort Mansfield, situated on Napantree Point, near Watch Hill, Rhode Island, was part of an original coastal defense network of Long Island a mi Long Island Sound. Named in honor of Major General J.F. Mansfield, a veteran of the War with Mexico and the Civil War, the fort was built during the period of public concern preceding the Spanish-American War of 1898. Recognizing the importance of coastal defense guns at this point the foderal government maintained the fort. In the early years of the First World War the Army sent Fort Mansfield the largest coastal defense guns it had.

After World War I, the federal government relaxed some of the vigil along the coasts, and Fort Mansfield was authorized for sale on March 4, 1923.

Fort Trumbull, of the acres, rods, poles and links was originally surveyed and established in 1775 about 12 miles from New London, Connecticut, at the mouth of the Thames River. Two forts were erected, one on each side of the river, designated as Forts Trumbull and Griswold. They were originally described as blockhouses with embankments. The first military action taken at the fort was in 1778 when the British sent Benedict Arnold sailing into Now London Harbor as a means of diverting some of the American forces from the more important campaign in Virginia. The British took Fort Trumbull with ease, and later continued on to take Fort Griswold, killing 120 of the 160 defenders of the post and setting all its buildings on fire.

In 1812 the embankments of Fort Trumbull had worn down to uncared for grassy mounds. The War of 1812 brought about a hasty reactivation of the installation, as well as the assignment of troops there. Although New London was threatened by attack many times, it was never actually invaded due Enrecly to the strong defense of the harbor offered by Ford Crumbull, which was named after Court Lonathan Trumbull. Aids do Camp to General George Washington.

After the War of 1812 Fort Trumbull ran into cycles of activation and disuse. In 1861 the Civil War gave Fort Trumbull renewed importance to the federal government. All casements were readied, new armaments were brought in, the fence surrounding the installation was rebuilt, and Fort Trumbull assumed a role in yet another conflict.

After the Civil War Fort Trumbull was deactivated. In 1910 the federal government turned over the grounds and buildings to the Treasury Department for use by its Revenue-Cutter Service. The military history of Fort Trumbull ended, but the outer defense ring around the three metropolitan areas continued to grow.

Fort Michie on Great Gull Island in Long Island Sound, with 10 acres of land, was one of the smallest installations in the area. As part of the coastal defense system of Long Island Sound, it lay off the northernmost tip of Long Island, with a commanding view of the waters of Block Island and Long Island Sound. It was named after 1st Lt. Dennis H. Michie who was killed at San Juan, Puerto Rico during the Spanish-American War. The military mission of this post was coastal defense.

The land where Fort Michie was erected was purchased in 1803 as a site for a light house. Its geographic importance became evident to the War Department in 1896 and it was taken over as a coastal defense installation. On June 6, 1949 Treat full Island was conveyed to the American Museum of Natural History, which used the land as part of its public program. Today the island is posted as a bird sanctuary. Among the romains of the old fort still standing are the observation teners, clockhouses, gun emplacements and brick barracks. Also still intact are the underground tunnels which were used as passageways and ammunition storage points.

MORE

LONG ISLAND'S EASTERN SHIELD TAKE THREE

Fort H.G. Wright on Fischers Island in the Block Island Sound commanded the sound and Cardiners Bay to the south. It was named in honor of Major General Horatio G. Wright, a distinguished Civil War commander and Chief of Army Engineers from 1879-1884. The island has had hundreds of treasure seeking visitors, for legend has it that the notorious Captain Kidd buried booty on Fischers Island. To date no one has found any sign of the treasure.

The strategic importance of the island was first recognized in 1704 when a signal beacon was erected on Prospect Hill. The beacon was designed to warn the city of New London of an enemy attack. In 1898 the federal government purchased a large tract of land on the western end of the island for establishment of coast defense fertifications. The construction of Fert H.G. Wright, which began with the erection of the gun emplacements in 1898, cost the government a total of about 8 million dellars. It became the headquarters of the Coast Defense of Long Island, with Forts Terry, Michie, Trumbull, Mansfield and Tyler as units in the command.

Fort H.G. Wright served as the coast and heavy artillery training center for Army and National Guard Units and West Point Cadets. Of all the installations within the outer ring of metropolitan defenses, Fort H.G. Wright was the most self-sufficient and best organized. The installation was equipped with its own electric power system and telephone system, which was hocked into the "mainiand" system. The fort had its own farms and its own transportation system.

In 1949 Fort H.G. Wright was termed inactive and was authorized for sale. To date this valuable piece of property has not been sold.

Fort Terry, on Flum Island, was much bigger than the other "shield" installations. Established in 1898 and named in honor of Major General Alfred H. Terry who commanded Union forces during the Civil War, the post was garrisoned by the Coast Artillery from the date of its activation. During the . summer months units sent to Fort H.G. Wright were sent in turn to Fort Terry for supplementary training in the technique of Coastal Defense operations.

At the end of World War II Fort Terry was inactivated, and was maintained only by a small carotaking detachment from Fort H.G. Wright. It remained on this .somi-active status until after World War II when all military personnel were withdrawn from the post and it was left in the hands of a few civilian caretakers. In 1952, however, the Army Chemical Carps took posession of the facilities and utilized them for research and testing purposes. In July of 1954 the Army turned over all its facilities to the Department of Agriculture, which had contracted to take o atrol of the rest of the island at the same time. The multi-million dellar Animal Disease interactory of the Department of Agriculture new occupies all of Fischers Island.

MORE

LONG ISLAND'S EASTERN SHIELD TAKE FOUR

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Fort Tyler, situated on Gardiners Point, Gardiners Island, was erected on land originally purchased for a light house, but later abandened. Lying within the waters of Block Island Sound, Fort Tyler commands all of the waters of Little and Great Peconic Bays. Forts Mansfield, Trumbull, Wright and Michie guarded the entrance to Long Island Sound and Fort Tyler guarded the southern segment of the Sound, as well as all the waters of the important bays where Long Island forks into two branches.

At the end of World War I the installation became excess to the needs of the federal government and was authorized to be sold.

Camp Wikoff, which was located in the Fort Pond area almost opposite Montauk Beach had the shortest life of any of the "shield" installations. It was established in 1898 and immediately named Comp Wikoff in henor of Colonel Charles A. Wikeff who was killed at Santiago, Cuba. Camp Tikoff was set up to be the receiving point for troops returning from the campaigns of the Spanish-American War. Over 29,500 soldiers returned from Cuba, Puerto Rice and Florida and were quartered at Comp Wikoff until they could pass quarantine. Many of the returning soldiers had Yollow and Typhoid Fever and were put into detention camps of hastily orocted tents. Doctors and nurses did heroic work under difficult conditions created by the great volume of returning soldiers. Of the 29,500 camped there, only 263 mon were lost despite the high rate of tropical fever and infection. Toddy Roosevelt and his Rough Riders debarked from their ships at Camp Wikoff. When the flood of roturning soldiers lessened Camp Wikoff was inactivated, and has never been reopened. Today a dude ranch occupies the old site.

Camp Hero was established in 1942. It is the newest of all installations in the "shiold" and remained active until 1947. Residents of the eastern end of Long Island know little about the camp, except it was named for Major General Andrew Hero, Jr., and some huge coastal defense guns had been moved into it.

The movement of the guns was a huge problem for the Army, the Long Island Rail Road, and the people of the communities along the way. The guns were originally transported across the rickety Shinnecock Bridge, and later by railroad. The railroad proved to be a slow and unwieldy method, as well as costly, so the Army worked out an arrangement to transport the guns by barge. This also proved to be a slow, dangerous and costly process and was soon given up. The Army finally built its own bridge and the last of the big guns coming to and from Camp Hero thundered across a specially constructed pontoon bridge.

The public knew guns were at Camp Hero, but there was no idea as to the number of troops, the acreage of the camp, and the missions of the installation. The guns boomed periodically during target

firing exercises. This sealed off many square miles of fishing waters off the southern shore of Lorg Island, but it also proved to Americans and anyone else concerned that Camp Hero protected the south-eastern tip of Long Island, well out into the Atlantic Ocean and with other forts protected all waterways leading to New York City, Providence and New Haven.

Camp Hero was invisible from the air. Buildings could be seen in any aerial photograph, but they gave the appearance of a typical Long Island or New England village rather than a fort. From offshore an observer could see a row of summer homes along the coast, with wide, white, sandy beaches stretching down to the waterfront. Today these buildings are residences, but in the days of World War II the buildings belonged to Cump Hero, and were equipped with heavy armaments poking out through carefully camouflaged guaperts.

In 1947 Camp Hero was placed on an inactive status, but in 1951 it was reactivated as a sub-installation under the command of Army Anti-Aircraft Artillery. Heavy guns were returned to the post, and once again Camp Hero took on a mission in the U.S. Army defense perimeter around Long Island. In 1957 "Operation Changeover," the deactivation of all U.S. Army AAA gun batteries in the New York metropolitan area hit Camp Hero, and the guns were moved out. A spokesman for the Army stated that the removal of the guns did not necessarily spell an end to Camp Hero. The location of the installation is still considered highly strategic. On December 5, 1957 the last Army personnel left the installation.

The mention of Nike Hercules and other guided missiles is the keyword of a new era for the eastern "shield around the metropolitan areas. The guided missiles have itaken the role of coastal defense and anti-aircraft defense away from the eight forts which at one time formed Long Island's eastern shield. Today missile sites are located on Long Island, but are closer to the cities they defend. Unfriendly craft, however, can still be engaged and stopped far off the eastern tip of Long Island, where the old forts once defended the shores. A new age has come to Long Island, the "shield" has been tightened into one far reaching circle around one of this country's strategic areas. Since 1775 when the nation first strived for independence Long Island has been a key military base and has been recognized as such by generations of military leaders. The old forts which formed the eastern "shield" belonged to one era, the guided missiles which today are capable of flying above the sites of these old forts belong to another era.

Historical Record: 773D ACWRON for period ending 31 March 1958 (continued)

AIR POLICE SECTION: 1 January 1958 - 31 March 1958

Equipment

This section maintains the following types of weapons:

45 caliber pistols 15 Ea.; .30 caliber M1 Rifles 26 Ea.: .30 caliber Carbines 48 Ea.; .45 Submachine guns 5 Ea.; .30 caliber MAR's 7 Ea., and associated ammunition, for the above. On order are 15 AMPRC-21 Radios which this section will also maintain.

From the periods 1 January to 31 March 1958, the total amount of visitors arriving this station were approximately 900 from Civilian Companies, and Military Organizations.

The most difficult problem in this section at this period of time was the processing of identification cards, this item had to be accomplished at Suffolk County Air Force Base, but as now this whole system is being accomplished at this station.

On receipt of the new type dependent Identification Cards, this section has processed cards for members of the Air Force, Army, Navy and Coast Guard (DD 1173).

At the present time all personnel of this station are now firing on the firing range. This range was constructed by military personnel, also targets have been requisitioned and also reproduced by mimeograph machine.

A complete advance Notification system for the Main Gate and Air Police Headquarters has been completed. All now required is Electrical Communications which are now on order.

Security clearances for this station have also been conducted by the Security Section within this section, the total being 81 (NAC's), also for Background Investigations the total being three (3).

MOTOR POOL SECTION: 1 January - 31 Harch 1958

Equipment - Station Wagon, 9 passenger, 1956 1 Ea.: 12 ton International Cargo 2 Ea.; 5 Ton pickup 1 Ea.; Bus, 29 passenger 1 Ea.; Tractor, w/trailer 1 Ea.; Pay/Loader 1 Ea.; Fork lift 2 Ea.

During this period there were no reportable accidents due to the alertness and good judegement on the part of Motor Pool personnel.

Stand-by driver was initiated by Captain Marion B. Hitt, now Motor Pool OIC.

Motor Pool has lost three men. Two of which, A/2C Miller and A/3C Weaver, are now confined to the Suffolk County Air Force Base Stockade. The third, A/B Harris has been re-assigned to Central Heating as a permanent detail. All three were relieved from duty for being AWOL.

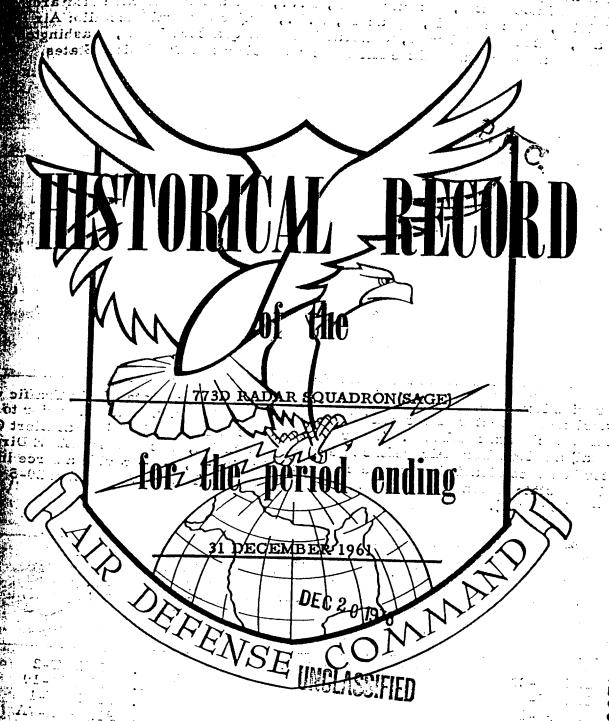
Revised Station Regulations were started and two rough drafts were submitted to the Sgt/Hajor for coordination throughout the Squadron.

Plans were started for the building of a new and larger Motor Pool parking lot for Government vehicles.

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ERSONNEL SERVICES SECTION

Projects:

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- a. The theatre schedule has been revised to stimulate more attendance at cheduled movies.
- b. The fishing tournament was completed and many varied prizes were warded.
- c. A basketball team was organized and is currently playing in Suffolk ounty AFB Intra-Mural Basketball League.
- d. The two-lane bowling alley being constructed on the site will not be ompleted for approximately two additional months, therefore, the Squadron which is comprised of approximately 100 military and civilian tersonnel is being conducted at East Hampton Star Lanes.

ERSONNEL AND ADMINISTRATION

Projects:

All Squadron personnel were scheduled for and completed marksmanship ining and qualified with the appropriate weapon during November and ecember 1961.

The Ground Training Program has been reorganized to insure compliance with all directives and accomplish all necessary training throughout the coming ear.

A complete review of all personal records of emergency data was completed a result of the NYADS Assistance Visit. This has been established as a marterly project.

The necessary briefings and initial plans were made in order to initiate the same w system of filing and record keeping in accordance with AFM 181-4 and ... 31-5.

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RCS: AU-D5

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Section I. REQUIRED DATA									
1. UNIT AND LOCA	TION	-	Z. NAM	E AND GRADE OF	COMMANDER				
773D Radar Squadron(SAGE)Montauk, N.Y. ERNEST C. SKINNER, LtColonel, US!									
3. CHAIN OF COMMAND (Superior Echelons) 773D Radar Squadron (SAGE) Montauk AFS, N. Y., Ernest C. Skinner, Lt Colonel; New York Air Defense Sector, McGuire AFB, N. J., Brigadier General Coulter; 26th Air Division(SAGE) Stewart AFB, N. Y., Major General Agan; Air Defense Command, Ent AFB, Colorado, Lt General Thatcher; Hq NORAD, Colorado Spring General Gerhart; Headquarters USAF, Washington, D. C., General LeMay; Secretary of the Air Force; President of the United States.									
4. SUBORDINATE U	NITS (Down to and in	cluding equadrone)	·						
NONE						SI			
						1.			
						lo સર્વ			
						الله 			
To provide the highest quality surveillance data to the New York Air Defense Sector and Boston Air Defense Direction Centers. To provide the New York Air Defense Sector Direction Center with the highest UHF voice and data link communications under Mode I operations. To provide same for the BOADS Direction Center under Mode II operations. To provide New York NCC with surveillance data under Mode operations. Conduct and participate in all Mode III phases of air defense by maintaining a ground interceptor control station in support of the New York NORAL Control Center. (NYADSR 23-3, 10 June 1963).									
6. PERSONNEL		OFFICERS	AIRMEN	CIVILIANS	TOTAL	3.			
	ASSIGNED		160	23	199				
	ATTACHED	16	100	23		be			
				L	<u></u>	4.			
1. AN/FPS- 2. AN/FPS-	6	re and quantity of m	ission-type equipmen	11. A	N/FPS-26 D-285 Multir	olex Unit			
3. AN/UPX- 4. AN/FST-	6(2)			13. A	N/GSC-7 N/GRC-27 (2	i Gi			
5. AN/FST-	2			15. A	N/GRT-3(26))			
6. AN/FSW-7. OA-840A					N/GRR-7 (26 N/FT A -13	,			
8. AN/FPS- 9. AN/FRT-	3 5				A-99(8) N/UPX-14	gr			
9. AN/FRI- 10. AN/GKA			- 10-		N/UPA-35-3	3			

E-18

b. No medical personnel have been promoted or are in cross training during this reporting period.

SUPPLY SECTION

- Personnel
- a. The Unit Supply Section has three people assigned: 2Lt William M. McCabe, SSgt Andrew Jones, and Mr. Walter J. Aley, Civilian.
- b. During the month of November, the Unit Supply office was moved from he old gun bunker to the former TROPO building. The supply office was ocated in the old gun bunker for more than five years.

MOTOR POOL SECTION

. Personnel

Gains: None

Losses: AlCAlfred Horn

GSA Mileage for October - 8,934 Cost \$664.00 GSA Mileage for November - 10,057 763.00 GSA Mileage for December - 11,215 842.00

PERSONNEL AND ADMINISTRATION

- . SSgt Raymond J. Kwiatkowski was upgraded to the 7-level skill.
- . OJT effectiveness for the squadron for the year 1963 was 94%.
- . On 19 December 1963, the administrative section received a new duplicating nachine.

CIVIL ENGINEERING SECTION

- . New governors were installed on each of the three engines at the GATR ite.
- . The main power panel at the GATR Site was rewired.
- . Number 3 engine fuel pump at the Main Power Plant was damaged and the ump was replaced.
- . The trunk line supplying commercial electrical power to Montauk Air Force tation burned out, causing loss of commercial power. At present, repair is ending awarding of a contract. Until such repair is made, electrical power will be furnished by Base power.
- The number 2 waste heat boiler has ruptured tubes, repair pending warding of contract.

Page 5 of 6 Pages

INSTALLATION SURVEY REPORT

MONTAUK AIR FORCE STATION

MONTAUK LONG ISLAND

N E W Y O R K

10 MAY 1972

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SECTION VISPECIAL INTEREST ITEMS
SECTION VIIDISCUSSION
SECTION VIIIRESERVE
SECTION IXDISPOSAL ACTIONS
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SECTION III

AREA DATA AND VICINITY MAP

CLIMATE:

Although periodic high winds impede the operation of our FPS 35 Radar Antenna, the area has an ideal climatic condition conducive to year round mission accomplishment. The mean temperature in January is 26.1 degrees, July 70.8 degrees, with 51.3 degrees as the yearly mean. The average rainfall is 40.4 inches occurring mostly in late winter and early spring. Snowfall is very slight and the average wind velocity is 18 knots.

TRANSPORTATION NETWORK:

During the winter months, the Long Island Railroad operates two trains and three buses daily between the town of Montauk and New York City. During the summer months two additional trains and buses are scheduled on weekends. A small private airport in Montauk, located five miles from Montauk AFS, provides chartered flights to New York City and the New England area. The two major commercial airfields serving New York City, John F. Kennedy Airport and LaGuardia Field, are approximately 110 miles from Montauk AFS. Major highways serving Montauk are Interstate 495 connecting with New York State Route 27 at Riverhead to provide access to New York City.

CREENBELT CONCEPT: There is no Greenbelt Concept at Montauk at the present time.

INSTALLATION DATA:

a. <u>Basic Mission</u>. Montauk Air Force Station is a long range radar station which provides high quality surveillance data to Headquarters 21st

Air Division.

- b. Topography: The soil type is glacial till composed of poorly stratified boulders, gravel, sand, salt and clay. Most of the general topography drains into swamps, situated throughout the area. There is approximately 5500 feet of man-made drainage ditches. Deeply sloped land is subject to water erosion. Vegetation cover consists of Kentucky Bluegrass, Red Fescue, Birdfoot Trefoil and Perennial Ryegrass.
 - c. Base Population: (Authorized strength, 4th qtr, FY72).

	Military	Civilian	<u>Total</u>
773 Radar Squadron	133	32	165
Dependents (On base)	_0	<u> 266</u>	<u> 266</u>
Total Base Population	133	298	431

d. Summary of Land and Acquisition Cost:

(1) On Base

	Source	Acres	Cost
	Government owned (fee)	301.40	101,580.72
	Land Easement Access	1.80	<u>N/A</u>
	TOTAL	303.20	\$101,580.72
(2)	Off Base (GATR Site)		
	Source	Acres	Cost
	Government owned (fee)	6.65	18,305.70
	Land Easement Access	.25)	450.00
	Land Easement (Road)	.24)	450.00
	Land Easement (Road)	<u>3.21</u>	750.00
	TOTAL	10.35	\$19,505.70

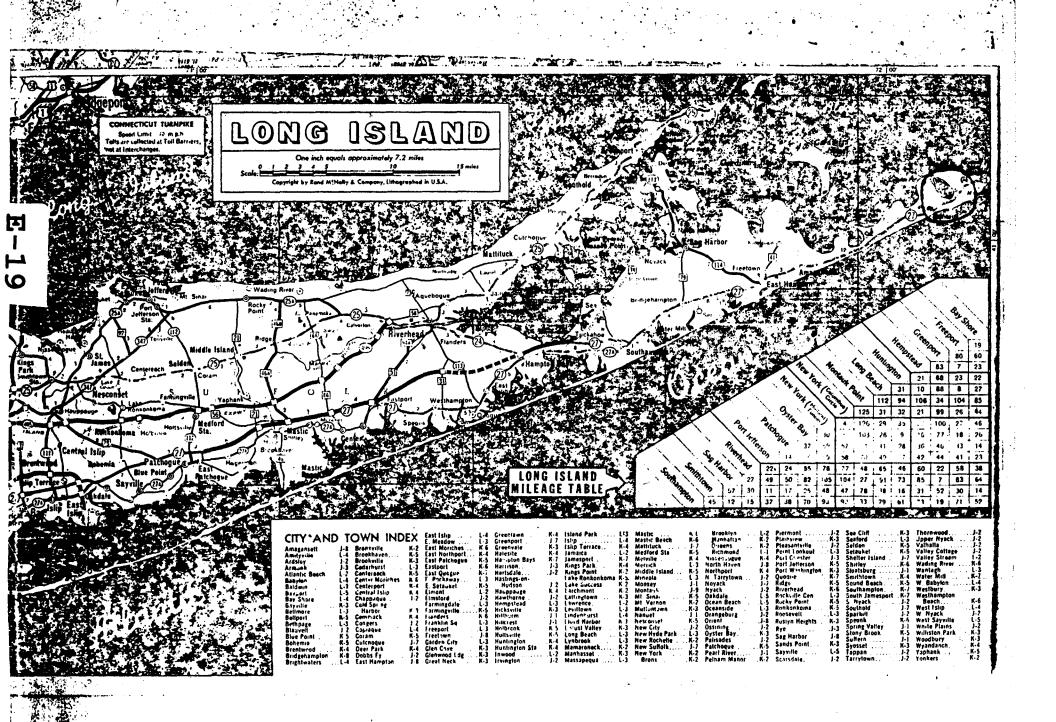
Buildings: (1) On Base Temporary 15 Semi-permanent 9 Permanent <u>70</u> 94 TOTAL (2) Off Base (GATR Site) 0 Temporary Semi-permanent 0 Permanent 2 2 TOTAL f. Total value of land and improvements: (1) On Base \$9,545,905.27 \$ 306,965.16 (2) Off Base (GATR Site)

g. Leases and Permits:

Agency	Lease #	Effective	<u>Termination</u>	<u>Type</u>
AT&T	DA30-075 Eng-11187	20 Sep 56	19 Sep 2006	Outgrant

MILITARY CONSTRUCTION PROGRAM

- a. FY 1972 None
- b. FY 1973 1977: Total Estimated Cost of \$79,000 for one project.
- c. Additional Family Housing requirements identified but not funded.



SECTION IV

HISTORY

Montauk Air Force Station, located at the extreme eastern tip of Long Island, five miles east of the village of Montauk, is presently the home of the 773 Radar Squadron (ADC).

During World War II Camp Hero was occupied by the Army Coast Artillery whose huge 16 inch guns stood ready to defend against any possible invasion by enemy forces.

Following World War II Camp Hero was deactivated and used as summer training camp for Army Reserve Units.

On 27 November 1950 the 773rd Aircraft Control and Warning Squadron was activated and located on a portion of Camp Hero which was then redesignated as Montauk Air Force Station.

The squadron was assigned to Eastern Air Defense Force until 6 February 1952 at which time it was re-assigned to the 26th Air Division.

From 6 February 1952 until October 1958 the 773rd Radar Squadron operated as an Air Defense Direction Center, providing surveillance for the detection, identification, and interception of all aircraft entering the area of responsibility. As the speed and performance of manned aircraft increased and the use of missiles increased, it became apparent that the concept of manual Air Defense Operations whould not keep pace. The 773d bowed to progress with the advent of the SAGE (Semi-Automatic Ground Environment System) and was assigned to New York Air Defense Section (SAGE) on January 8, 1957. On 1 October 1958 the Squadron was redesignated as the 773rd Radar Squadron (SAGE) and acquired a new mission.

On 1 April 1966 New York Air Defense Section was redesignated as the 21st Air Division and the 26th Air Division was redesignated as First Air Force. Today, the Squadron provides surveillance data for 21st Air Division on a twenty-four hour basis, seven days a week.

SECTION V

MISSION

The mission of Montauk Air Force Station is to provide radar surveillance data, aircraft height determination, and Mark X IFF/SIF identification data and to accomplish radar mapping prior to transmittal of such data to Air Defense SAGE units. The 773 Radar Squadron provides this surveillance data to the 21st Air Division Direction Center on a twenty-four hour basis, seven days a week.

The Military Affiliate Radio Service (MARS) Station located in Montauk

Air Force Station provides a back-up communications link with radar ships

at sea and the SAGE Direction Center.

The Ground to Air Transmitter Receiver (GATR) Site located 4 miles west of our main station, is a relay station which provides the 21st Air Division with the capability for UHF voice and data link communications with interceptor aircraft.

SECTION VI

SPECIAL INTEREST ITEMS

In compliance with FPMR, Paragraph 101-47.801, the general guidelines are discussed as follows:

- 1. IS THE PROPERTY BEING PUT TO ITS HIGHEST AND BEST USE?
- Yes. All 313.55 acres of Montauk Air Force Station are currently being put to best use.
- 2. ARE OPERATING AND MAINTENANCE COSTS EXCESSIVE?

17.75

- No. The facility maintenance program appears to be very effective.

 Only three projects qualifying as backlog of essential maintenance and repair exist at present. Prior year maintenance expenditures were \$275,345 or approximately 2.% of the investment cost.
- 3. WILL CONTEMPLATED PROGRAM CHANGES ALTER PROPERTY REQUIREMENTS?
- Yes. The Air Force proposes an addition of 7.85 acres in fee for recreational facilities, family housing, sewerage outfalls and a fresh water well. The Air Force also proposed an addition of 24.946 acres in restrictive easements to insure reliability of the "ALRI" receiver. The "ALRI" receiver was deactivated in 1970, however, the easement is still required due to the associated RF radiation hazard of the FPS-26 radar. The proposals are currently at the Chief of Engineers, New York Division, Corps of Engineers.
- 4. IS ALL OF THE PROPERTY ABSOLUTELY ESSENTIAL FOR PROGRAM REQUIREMENTS?
- No. Approximately 45 acres of swamp land are scattered throughout Montauk AFS, however, drainage ditches utilized for the entire installation run through these areas.
- 5. WILL LOCAL ZONING PROVIDE SUFFICIENT PROTECTION FOR BUFFER ZONES,

 FOR OFFICIAL USE ONLY

THEREBY ENABLING THE RELEASE OF A PORTION OF THE PROPERTY?

Yes. The property referred to in item 11 is adjacent to a state park.

- 6. ARE THE BUFFER ZONES KEPT TO AN ABSOLUTE MINIMUM?
 Yes.
- 7. IS THE PRESENT PROPERTY INADEQUATE TO SERVE CONTEMPLATED FUTURE PROGRAMS?

 Not entirely. If the proposed transfers discussed in item 3 above are

 completed, the property requirements of Montauk AFS will be adequate to serve

 contemplated future programs. The property which can be disposed of (ref
 erence item 11) is not suitable for the purpose of the property which we are

 attempting to obtain.
- 8. CAN NET SAVINGS BE REALIZED THROUGH RELOCATION, CONSIDERING PROPERTY
 VALUES, COSTS OF MOVING, OCCUPANCY, AND INCREASED EFFICIENCY OF OPERATIONS?
 No.
- 9. HAVE DEVELOPMENTS ON ADJOINING NON-FEDERALLY OWNED LAND OR PUBLIC ACCESS ROAD RIGHT-OF-WAY GRANTED ACROSS THE GOVERNMENT OWNED LAND RENDERED THE PROPERTY OR ANY PORTION THEREOF UNSUITABLE OR UNNECESSARY FOR PROGRAM REQUIREMENTS?

Not applicable.

- 10. IF FEDERAL EMPLOYEES ARE HOUSED IN GOVERNMENT-OWNED RESIDENTIAL PROPERTY, CAN THE LOCAL MARKET PROVIDE THE NECESSARY HOUSING AND OTHER RELATED SERVICES, THEREBY ENABLING THE GOVERNMENT-OWNED HOUSING AREA TO BE RELEASED?
 - No.
- 11. CAN THE LAND BE DISPOSED OF AND PROPOSED PROGRAM REQUIREMENTS SATIFIED THROUGH RESERVED RIGHTS AND INTERESTS TO THE COVERNMENT OF THE PROPERTY RELEASED?

- Yes. Approximately 64 acres of land located on the southwest portion of the installation could be disposed of provided an easement was granted for an existing fresh water well and a guaranteed right-of-way to the well. A restrictive easement would also be required due to the RF radiation hazard of the FPS-26 radar.
- 12. IS A PORTION OF ANY PROPERTY BEING RETAINED PRIMARILY BECAUSE THE PRESENT BOUNDARIES ARE MARKED BY THE EXISTENCE OF FENCES, HEDGES, ROADS, AND UTILITY SYSTEMS?
- No. None of the property is being retained due to physical features of the boundary.
- 13. IS ANY LAND BEING RETAINED MERELY BECAUSE IT IS CONSIDERED UNDESTRABLE PROPERTY DUE TO TOPOGRAPHICAL FEATURES OR ENCUMBRANCES FOR RIGHT OF WAY?
- Yes. Approximately 45 acres scattered through Montauk AFS consists entirely of swampland.
- 14. IS THE LAND BEING RETAINED MERELY BECAUSE IT IS LAND LOCKED?
 - No. None of the property is being retained because it is landlocked.
- 15. IS THERE LAND OR SPACE IN GOVERNMENT OWNED BUILDINGS WHICH CAN BE MADE AVAILABLE FOR UTILIZATION BY OTHERS ON A TEMPORARY BASIS?
- Yes. The land identified in item 11 could be utilized by others on a temporary basis. Currently .675 acres of land is used by AT&T on an Outgrant. The government owned buildings are fully utilized.

SECTION VII

DISCUSSION

GENERAL:

Montauk AFS consisting of approximately 313 acres is an active Radar Site. The major portion of the land area is being fully utilized in the support of the assigned mission. There are no DOD tenant organizations assigned to this installation. Future programming is anticipated in the Family Housing Area, since only 27 Family Housing units are presently on Base. The Community housing available is not within the pay scale of military families, as this area is primarily a vacation spot. To discuss the land-use in more detail the installation is divided into 12 categories, as shown on the land use map.

AREA A - FAMILY HOUSING:

Family Housing units were constructed in two increments. Nine units were completed in 1956 consisting of 2 and 3 bedrooms, and in 1958 another 18 units were constructed consisting of 2, 3, and 4 bedrooms. These facilities were constructed on concrete slab. A small playground is located in this area.

AREA B - FAM CAMPS:

A temporary FAM CAMP was established in August 1968. This facility is fully occupied by family camping trailers from late May through September. During FY 69 this area was enlarged to accommodate 10 trailers. Funds were supplied by 1st Air Force in the amount of \$4700.00. In December 1971, 5 government owned trailers were purchased and located in this area to temporarily accommodate incoming and departing military families on permanent change of station moves.

AREA C - FAMILY TRAILER COURT

During FY 60, Sixteen (16) concrete pads were constructed to accommodate privately owned trailers to augment Family Housing. During the 2nd quarter FY 72, four (4) additional concrete pads were constructed.

AREA D - SEWAGE TREATMENT & DISPOSAL PLANT

The old sewage treatment system was replaced in 1970. A new Clarigester, effluent recycle pump, chlorine contact tank and trickling filter were installed. Minimum changes were made to route the effluent through the existing manholes to the new plant and subsequently to the ocean. The area used for outfall is pending transfer in fee from the Army Corps of Engineers.

AREA E - RECREATION AREA

The recreation area is utilized by 165 military and civilian employees, their dependents and civilian guests. There are facilities for picnicing, baseball, softball and other outdoor activities. The recreation area is located on property which is pending transfer from the Army Corps of Engineers.

AREA F - INDUSTRIAL AND OPERATIONAL AREA

The industrial and operational area consisting of support facilities is located in the center of the base. This location is essential for control and coordination in fulfilling the basic mission of Montauk AFS.

AREA G - AT&T AREA

This area (.6753 acres) is leased to AT&T through the year 2006. AT&T provides a vital communication service for Montauk AFS.

AREA H - WATER SUPPLY AND PLANT

The fresh water supply system is composed of four wells, a treatment plant and storage tanks and is located at six locations throughout the installation.

AREA J - CANTONMENT AREA

This area contains dormitories, special service facilities and administrative support facilities.

AREA K - PROPOSED FAMILY HOUSING AREA

This area is presently pending transfer from the Army Corps of Engineers. Suitable year round housing is extremely limited in the local community. The local area is primarily a summer resort spot and houses were designed for summertime use. The housing problem has been identified to higher headquarters. It is anticipated that either family housing or a trailer court will be approved which will accommodate approximately 20 families.

AREA L - FPS-26 RF RADIATION HAZARD FOR PERSONNEL AND FUEL

The FPS-26 radar has an associated RF radiation hazard radius of approximately 720 feet for personnel and petroleum products. The effected area at its lowest point starts at 23 feet vertically from a plane extending horizontally from the base of the FPS-26 Tower. The radiation hazard from the FPS-6 and FPS-35 radars is less than for the FPS-26, therefore, it is not included.

AREA M - FPS-26 RF RADIATION HAZARD FOR ELECTRONIC EXPLOSIVE DEVICES

The FPS-26 Radar has an associated radiation hazard radius of 1500 feet for electronic explosive devices. The effective area starts at 10 feet vertically extending from a plane extending horizontally from the base of the FPS-26 Tower. The radiation hazard from the FPS-6 and FPS-35 radars is less than for the FPS-26, therefore, it is not included.

SECTION IX

DISPOSAL ACTIONS

AT THE PRESENT TIME THERE ARE NO DISPOSAL OF LANDS PENDING.

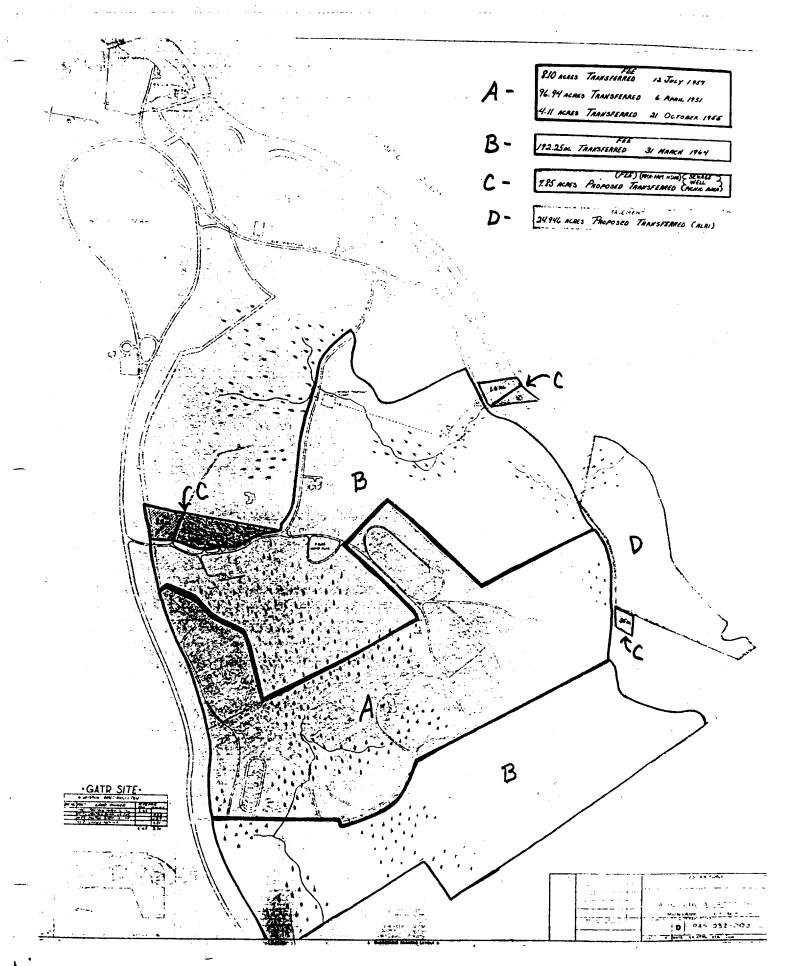
FOR OFFICIAL USE ONLY

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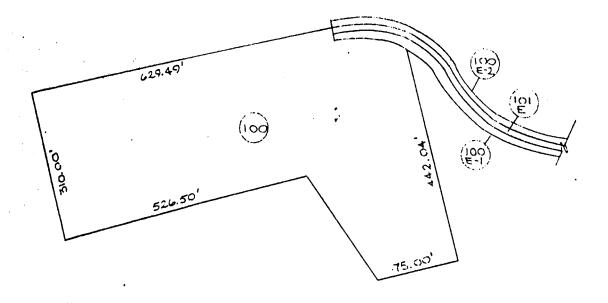
SECTION X

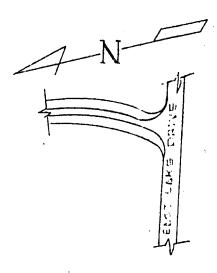
INDEX OF TABS

- A. PARCEL IDENTIFICATION MONTAUK AFS (GATR SITE)
- B. PARCEL IDENTIFICATION MONTAUK AFS (MAIN SITE)
- C. BASE LAYOUT PLAN
- D. AERIAL PHOTOGRAPH (Only includes 90% of site)
- E. FACILITY LISTING SUMMARY LIST



E-19





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ACQUISTION TRACT REGISTER											
מו מים	TRACT	LAND OWNER.	ALRE	AGE							
	100	MONTAUK BEACH CO. INC.	FEE	EAD'M'T							
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	101 €	LINDSEY HOPKINS		3.21							
		a second	· · · · · · · ·								
				3.70							

GATR SITE

BUILDING SCHEDULE

(Attachment to Base Layout Plan Tab C-1, Montauk AFS)

Revised Feb 72

134567891012345678900134567890013456789	Dormitory Gymnasium Dormitory Recreation, Multi. Purp. Dormitory Exchange Sales Store BE Storage Dormitory Security Police & Classroom Hq Sq Dormitory Community Center Open Mess, NCO Dispensary Dormitory Youth Center Water Pump Sta Water Treatment Plant Dining Hall Water Tank Stor Auto Hobby Shop Storage Warehouse Protective Shelter ACE Operations MARS Radio Commissary Store Heating Plant Sentry House Elec Switch Sta CE Admin & Maint Dormitory	112 Storage 115 Protective Shelter 116 Recreation Facility 119 Trailer Ct. Utility Bldg 120 to 146 Family Housing 200 GATR Bldg 201 Radar Tower Bldg 35 202 Elec. Power Bldg 203 Elec. Power Bldg 204 Pump Sta. Liq. Fuel 205 Radome Tower FPS-26 206 Bowling Center 208 BCE Maint Shop 209 Radar Tower Bldg 210 Radar Tower Bldg 210 Radar Tower Bldg 210 Radar Tower Bldg 300 Protective Shelter 2001 Sew. Pump Sta 2003 Fire Hose Hse 2004 " " " 2005 " " " 2006 " " " 2006 " " " 2007 " " " 2008 Water Pump Sta Well #3 2009 Water Pump Sta 2010 Water Pump Sta 2011 Water Stor Tank 2022 Storage, Mogas 2029 Flagpole 2031 Water Tank Stor 2037 Stor Diesel 2038 Water Pump Sta 2050 San Sewage Pump Sta 2054 Sew Treatment & Disposal 2057 S/Waste Repository
107	Elec Switch Sta	2050 San Sewage Pump Sta
		2057 S/Waste Repository
110	Storage	2300 Waste Treatment Bldg
111	Storage Shed	2400 Well Pump Sta 3001 Telecon Cen





U.S. ARMY
PROGRAM MANAGER FOR
CHEMICAL DEMILITARIZATION

DRAFT

SURVEY AND ANALYSIS REPORT SECOND EDITION

PROJECT MANAGER
FOR
NON-STOCKPILE CHEMICAL MATERIEL

DECEMBER 1996

LOCATION

Camp Hero

LOCALITY

Long Island

STATE

NY

SITE

Unknown

DESCRIPTION

Although no history of activities or functions of this installation were found, records indicate that on 22 February 1945, Battery "A" Coast Artillery Battalion (Mustard - HD) held a "Gas Identification Detonation Exercise." During this exercise, men were sent into clouds of mustard, phosgene, and lewisite. On this day the weather conditions were less favorable (inversion) and the clouds hung close to the ground; thus, a high number of men experienced irritations on their faces and arms. Because the inversion conditions were the cause of the men's irritations, it was stated that the exercises would only be held on favorable weather days.

SIZE

Unknown

CONTENTS

Unknown

COMMENTS

None

TYPE

Disposal

INSTALLATION

Formerly used defense site

BURIED CWM SITE

Chemical agent identification set

CLASSIFICATION

4 - Possible burial



New York State Office of Parks, Recreation and Historic Preservation Historic Preservation Field Services Bureau Peebles Island, PO Box 189, Waterford, New York 12188-0189

518-237-8643

Bernadette Cast o Commissione

December 3, 1999

U.S. Army Corps of Engineers
/ TTN: CEMVR-ED-DO
1 homas J. Knapp
(lock Tower Building
F.O. Box 2004
F ock Island, Illinois 61204-2004

Fe: CORPS
Ordnance & Explosive Hazards
Camp Hero, Suffolk Co.
Niskayuna, Schenectady Co.
99PR3252

E ear Mr. Knapp:

It reviewing our letter of October 8, 1999 to your office to provide clarification of our response, I reviewing an error regarding reported historic structures. The correct response should have been as fullows:

·	Camp Hero	<u>Niskayuna</u>
A cheologically Sensitive	Yes	Yes
National Listed/Eligible	Yes	None known

A ter receipt today of a detailed map of the Niskayuna site, I can now say that there are no National Register of Historic Places listed or eligible properties in or adjacent to the former tank to sting facility at Niskayuna. There are no identified archeological sites within the Niskayuna purcel, but we consider the area "sensitive" due to numerous sites nearby and consider a Phase 1 archeological survey to be warranted.

V e have identified National Register eligible structures at the former Camp Hero, Montauk Point, L ng Island, i.e., WWII era bunkers, the former recreation hall and a communications/observation b illding designed to appear as a civilian cottage. Again, we consider the former Camp Hero to b archeologically sensitive due to known sites nearby and based on the history of the property.

If you have any questions regarding this review, please call me at (518) 237-8643, extension 3 :83. Please refer to the project number (PR) above in any correspondence.

S ncerely,

mes Warren

storic Preservation
frogram Analyst

An Equal Opportunity/Affirmative Action Agency

Sprinted on recycled paper

New York State Department of Environmental Conservation

Division of Fish, Wildlife & Marine Resources
Wildlife Resources Center - New York Natural Heritage Program
700 Troy-Schenectady Road, Latham, New York 12110-2400

Phone: (518) 783-3932 FAX: (518) 783-3916



October 6, 1999

Joseph Raoul, Jr US Army Corps of Engineers, Rock Island District Clock Tower Bldg, PO Box 2004 Rock Island, Illinois 61204-2004

Dear Mr. Raoul:

In response to your recent request, we have reviewed the New York Natural Heritage Program databases with respect to the Formerly used Defence Sites, Camp Hero at Montauk, Suffolk County; and the Niskayuna Ordinance Modification Plant at Niskayuna, Schenectady County, both sites as indicated on the map you provided, located in New York State.

Enclosed is a report of rare or state-listed animals and plants, of significant natural communities and of other significants habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. The information contained in this report is considered <u>sensitive</u> and may not be released to the public without permission from the New York Natural Heritage Program.

Your project location is within, or adjacent to, a designated Significant Coastal Fish and Wildlife Habitat. This habitat is part of New York State's Coastal Management Program (CMP), which is administered by the NYS Department of State (DOS). Projects which may impact the habitat are reviewed by DOS for consistency with the CMP. For more information regarding this designated habitat and applicable consistency review requirements, please contact:

Greg Capobianco or Steven C. Resler - (518) 474-6000 NYS Department of State Division of Coastal Resources and Waterfront Revitalization 162 Washington Avenue, Albany, NY 12231

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should <u>not</u> be substituted for on-site surveys that may be required for environmental impact assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

This response applies only to known occurrences of rare or state-listed animals and plants, of significant natural communities, and of other significant habitats. For information regarding regulated areas or permits that may be required under state law (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

Sincerely,

Betty A. Ketcham

Information Services

NY Natural Heritage Program

Encs

cc: Reg. 1, and 4, Wildlife Mgr.

Reg. 1, and 4, Fisheries Mgr. Reg. 1, and 4, Bureau of Habitat

Natural Heritage Report 6

pecies and Ecological Communities

Prepared 4 October 1999 by NY Natural Heritage Program, NYS DEC, Latham, New York

Records with a Precision value of "S" are known to be in a location that may be impacted by the proposed action.

Records with a Precision value of "M" may possibly occur within the project area in appropriate habitat.

This report contains SENSITIVE information that should be treated in a sensitive manner -- Please see cover letter.

Refer to the Users' Guide for explanations of codes, ranks, and fields.

MONTAUK

Page 1

** Town Scientifc Name, COMMON NAME, & Group Name	NY Legal Status & Heritage Ranks	Federal Status	Precision & Acreage	EO Rank & Last Seen	General Habitat and Quality	Detailed Location	USGS Topo Quad Lat & Long	Office Use
* SUFFOLK ** EAST HAMPTON								
Viburnum dentatum var venosum SOUTHERN ARROWWOOD Vascular Plant	UNPROTECTED G5T4? S2		S 100	A 1992-08-13	GRASSLAND AREAS INTERMIXED WITH COASTAL SHRUBLAND. MARITIME SHRUB COMMUNITY. ASSOC. SPECIES: VIBURNUM DENTATUM VAR. VENOSUM IS ONE OF THE DOMINANT SHRUBS; OTHER CODOMINANTS INCLUDE PRUNUS MARITIMA, PRUNUS SEROTINA, MYRICA PENSYLVANICA, AND IN WETTER	MONTAUK POINT TAKE MONTAUK POINT STATE BLVD (RTE 27) ALMOST TO END OF ISLAND CIRCLE. PLANTS ALONG RTE 27 ROADSIDE EAST OF INTERSECTION WITH EAST LAKE DRIVE IN VERY DENSE POPULATIONS AND ON NORTHERN END OF CIRCLE JUST AS IT CURVES SW. PLANTS FOUND AT ÉDGES OF ROADS	MONTAUK POINT 41 04 02 N 71 52 55 W	4107118 37
Shrub swamp Community .	UNPROTECTED G5 S5		S 10	B 1991-03-22	SEVERAL SMALL SHRUBBY WETLANDS WITHIN EXTENSIVE AREA OF SUCCESSIONAL MARITIME FOREST AND MARITIME SHRUBLAND. SOME WETLANDS HAVE STANDING WATER AND SPARSE HERB LAYER; OTHERS HAVE SATURATED SOILS WITH MANY HERBS AND MOSSES. THE MARGINS OF THE WETLANDS	CASWELL CLIFF SEVERAL SMALL WETLAND PATCHES WITHIN SUCCESSIONAL MARITIME FOREST AND MARITIME SHRUBLAND, S OF MONTAUK POINT STATE BOULEVARD AND WITHIN 1.0 MI ESE OR N OF POND BLUFF, ABOUT 2.0 TO 2.7 MI W AND SW OF MONTAUK POINT LIGHTHOUSE.	MONTAUK POINT 41 03 25 N 71 53 11 W	4107118 67
Eleocharis halophila SALT-MARSH SPIKERUSH Vascular Plant	RARE G4 S2		S 1	E 1986-07-29	SERIES OF WETLANDS. A FEW DISTINCT PONDS BUT MOSTLY EXTENSIVE, OPEN (SOMETIMES SHRUBBY) MARSH OR MEADOW. BEHIND PRIMARY DUNES, OCEAN BEACH. FRESH TO SOMEWHAT BRACKISH WETLANDS NEAR OCEAN BEACH.	MONTAUK POINT FROM THE EASTERNMOST END OF CIRCULAR TERMINUS OF STATE BLVD. (ABOUT W OF LIGHTHOUSE), GO 0.25 MI NNW TO INDICATED WETLANDS. PLANTS ARE IN THE WETLANDS NEAR OCE AN BEACH.	MONTAUK POINT 41 04 22 N 71 51 35 W	4107111 76

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*	SUFFOLK								
**	EAST HAMPTON Viburnum dentatum war venosum SOUTHERN ARROWWOOD Vascular Plant	UNPROTECTED G5T47 \$2		S 20	A 1992-08-10	MARITIME SHRUBLAND WITH SMALL POCKETS OF GRASSLAND. AT EDGES OF PATHS AND WETLANDS.	WARHOL SHRUBLAND FROM MONTAUK POINT STATE BLVD. (RTE 27), TURN S ON RANCH ROAD (DIRT ROAD) AT JUNCTION WITH OLD MONTAUK HIGHWAY.	MONTAUK POINT 41 02 49 N 71 53 33 W	4107118 86
五-22	Maritime shrubland Community	UNPROTECTED G4 S4		S 120	B 1991-06-18	SHRUBLAND WITH VARYING SHRUB CANOPY HEIGHT - SHRUBS ARE SHORTER NEAR THE COAST, AND TALLER INLAND. THIS SHRUBLAND GRADES INTO A SUCCESSIONAL MARITIME FOREST INLAND, AND THERE ARE SMALL WETLANDS (MOSTLY SHRUB SWAMP) WITHIN THE MAPPED BOUNDARY OF THIS	CASWELL CLIFF SHRUBLAND ALONG COAST S OF OLD MONT AUK HIGHWAY, EXTENDING ABOUT 0.7 MI SW AND NE FROM POND BLUFF, AND EXTENDING ABOUT 0.3 MI INLAND FROM THE COAST.	MONTAUK POINT 41 03 04 N 71 53 02 W	4107118 63
	Coastal oak-holly forest Community	UNPROTECTED G2 S1		S 130	AB 1997-07-23	A MIXED DECIDUOUS HARDWOOD-AMERICAN HOLLY FOREST ON SANDY LOAM TILL MORAINE AT TH EASTERN TIP OF LONG ISLAND. THE FOREST OCCURS IN A MOSAIC WITH MARITIME AND COAS FAL OAK FORESTS AND SUCCESSIONAL MARITIME FOREST. AREAS OF SUCCESSIONAL FORESTS ARE SUC	MONTAUK POINT SCATTERED IN PATCHES AT HIGHER ELEVATIONS ON BOTH SIDES OF RTE 27 NEAR THE ENTRANCE TO CAMP HERO IN THE INTERIOR OF MONTAUK POINT. COMMUNITY EXTENDS ROUGHLY NE TO MONEY POND, NW TO THE S TIP OF OYSTER POND AND S TO SW CORNER OF CAMP HERO. PROPERTY IS	MONTAUK POINT 41 04 11 N 71 52 43 W	4107118 45

王-22

Natural Heritage Repor

Species and Ecological Communities

Prepared 4 October 1999 by NY Natural Heritage Program, NYS DEC, Latham, New York

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* SUFFOLK								
** EAST HAMPTON Coastal plain poor fen Community	UNPROTECTED G3? S1		S 1	B 1991-06-18	SMALL WETLAND WHICH IS AN ISOLATED "BACKWATER" OF A SMALL POND TO WHIC THE WETLAND IS CONNECTED BY A SHADED MUCKY CHANNEL. THIS ROUGHLY CIRCULAR OPEN WETLAND IS SURROUNDED BY A THICKET OF SHADBUSH (AMELANCHIER), HIGHBUSH BLUEBERRY (VACCINIUM	CASWELL CLIFF WETLAND ABOUT 0.3 MI NW OF POND BLUFF, ABOUT 0.2 MI S OF OLD MONTAUK HIGHWAY, AND ABOUT 2.0 MI SW OF THE MONTAUK POINT LIGHTHOUSE.	MONTAUK POINT 41 03 04 N 71 53 02 W	4107118 63
Viburnum dentatum var venosum SOUTHERN ARROWWOOD Vascular Plant	UNPROTECTEI G5T47 S2)	S 25	B 1992-05-30	CORYMBO MARITIME SHRUB COMMUNITY. AT EDGES OF PATHS AND WETLANDS. ASSOCIATED SPECIES: PRUNUS SEROTINA, PRUNUS MARITIMA, JUNIPERUS VIRGINIANA, RHUS COPALLINUM, AMELANCHIER CANADENSIS.	CASWELL CLIFF SOUTH OF OLD MONTAUK HIGHWAY ON BOTH SIDES OF DIRT ROAD TO THE OCE AN NEAR CASWELL CLIFF.	MONTAUK POINT 41 03 13 N 71 52 33 W	4107118 84
Successional maritime forest Community	UNPROTECTE G4 S3S4		S 300	A 1997-07-23	SUCCEEDING FOREST EXPOSED TO SALT SPRAY ABOVE EXPOSED BLUFFS ON TOP OF A LARGE PUSH MORAINE AT THE E END OF LONG ISLAND. FOREST SURROUNDS SEVERAL SMALL WETLANDS INCLUDING A COASTAL VARIANT OF SHRUB SWAMP AND BLACKGUM VARIANT OF RED MAPLE-HARDWOOD SWA	CASWELL CLIFF WOODS BETWEEN OYSTER POND AND POND BLUFF. COMMUNITY EXTENDS NW TO MONTAUK POINT STATE HIGHWAY, SW TO ABOUT 0.2 MILES SW OF OLD MONTAUK HYGHWAY AND E TO CAMP HERO MILITARY RESERVATION.	MONTAUK POINT 41 03 25 N 71 53 11 W	4107118 67

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-	SUFFOLK EAST HAMPTON								
臣-2	Polygonum glaucum SEABEACH KNOTWEED Vascular Plant	UNPROTECTED G3 S3		S 1	B 1993-09-28	VARIABLY SANDY TO GRAVELLY BEACH BACKED BY HIGHLY ERODED, SHEAR BLUFF FACE. ABUNDANT OFFSHORE AND SHORELINE BOULDERS. BEACH ZONE CA 75 FT WIDE OR SO.	MONTAUK POINT FROM PARKING LOT, GO ACROSS RD OPPOSITE PARKING LOT ENTRANCE AND WALK N TO WHERE A ROAD DESCENDS TO RIGHT. FOLLOW RD TO BEACH BETWEEN FALSE POINT AND MONTAUK POINT UPPER BEACH. PLANTS SCATTERED ALONG SANDY SECTIONS OF UPPER BEACH, GRAVELLY TO STONY B	MONTAUK POINT 41 04 22 N 71 51 35 W	4107118 76
8	Arethusa bulbosa SWAMP PINK Vascular Plant	RARE G4 S2		S 1	B 1985-05-31	WET SHRUB THICKETS IN MORAINAL BLUFFS OVERLOOKING ATLANTIC OCEAN. ASSOCIATED SPECIES: VACCINIUM CORYMBOSUM, V. MACROCARPON, RHYNCHOSPORS, HYPERICUM SP.	CASWELL CLIFF FROM JUNCTION OF MONTAUK POINT ST. BLVD AND OLD MONTAUK HIGHWAY, 1.1 MI E ON OLD MONTAUK HIGHWAY, 0.3 MI SSE ON SAND RD TO BULLDOZED ROADS RUNNING E/W. PLANTS ARE SCATTERED TO LOW PLACES TO EAST. PLANTS ARE SCATTERED AT EDGE OF WETLAND SHRUB THICKETS	MONTAUK POINT 41 03 07 N 71 52 35 W	4107118 28
	Rumex maritimus var fueginus GÖLDEN DOCK Vascular Plant	THREATENED G5T5 S1		М	H 1926-09-29		MONTAUK POINT	MONTAUK POINT 41 04 23 N 71 51 46 W	4107118 4
	Cor eopsis rosea ROSE CORE OPSIS Vascular Plant	RARE G3 S3		М	H 1923-PRE		MONTAUK PÖINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18

Natural Heritage Report of

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	SUFFOLK								
**	EAST HAMPTON Agalinis acuta SANDPLAIN GERARDIA Vascular Plant	ENDANGERED G1 S1	LE	М	F 1938-08-27	IN SANDY SWALE.	BIG REED POND NEAR REED POND, MONTAUK POINT.	MONTAUK POINT 41 04 47 N 71 54 22 W	4107118 15
王-2	Viola primulifolia var primulifolia PRIMROSE VIOLET Vascular Plant	UNPROTECTED G5T? S2		S 1	B 1985-09-07	LOW ELEVATION POND SET IN MORAINAL DEPOSIT. VERY LITTLE NEARBY DEVELOPMENT. HOUSES TO EAST. PLANTS SET IN EXPOSED MARGIN AREAS. ASSOC. SPP.: HYPERICUM SP., CYPERUS SP., AND ELEOCHARIS SPP.	CAVETTS POND FROM TRAFFIC CIRCLE AT DITCH PLAINS WALK TO BEACH. FOLLOW BEACH 1.3 MI TO NNE. POND IN DEPRESSION WEST OF HOUSES. PLANTS AT NW END OF POND.	MONTAUK POINT 41 02 43 N 71 53 47 W	4107118 33
N	Tripsacum dactyloides NORTHERN GAMMA GRASS Vascular Plant	UNPROTECTED G5 S2		М	H 1960-09-17	EDGE OF WET SINKHOLE AT SANDY ROADSIDE BESIDE HIGHWAY.	LAKE MONTAUK EDGE OF WET SINKHOLE AT SANDY ROADSIDE BESIDE HIGHWAY SOUTH OF GREAT POND [LAKE MONTAUK].	MONTAUK POINT 41 02 42 N 71 54 53 W	4107118 16
	Spiranthes vernalis GRASSLEAF LADIES'-TRESSES Vascular Plant	RARE G5 S1		М	H 1951-08-04	EDGE OF THICKET, AMONG DENSE VEGETATION.	LAKE MONTAUK NEAR MONTAUK LAKE, EDGE OF THICKET AMONG DENSE VEGETATION.	MONTAUK POINT 41 03 51 N 71 54 51 W	4107118 9
	Empetrum nigrum esp hermaphroditum BLACK CROWBERRY Vascular Plant	RARE G5T5 S3		M	H 1924-08-07		DITCH PLAINS 1924-08-07: NEAR COAST GUARD STATION, MONTAUK. 1924-08-01: WITHIN 100 FEET OF NORMAN TAYLOR'S LAB, DITCH PLAINS, MONTAUK.	MONTAUK POINT 41 02 23 N 71 55 06 W	4107118 105
	Equisetum pratense ME ADOW HORSETAIL Vascular Plant	RARE G5 S2		М	H 1937-08-18		MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18

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*	SUFFOLK								
**	EAST HAMPTON								
	Carex nigromarginata BLACK-EDGE SEDGE Vascular Plant	RARE G5 SH		М	H 1977-06-12	OAK BEECH FOREST. ASSOCIATED SPECIES: ILEX OPACA.	MONTAUK POINT, MARITIME HOLLY FOREST MONTAUK POINT STATE PARK, OAK BEECH FOREST.	MONTAUK POINT 41 04 15 N 71 52 48 W	4107118 111
	Spiranthes vernalis GRASSLEAF LADIES'-TRESSES Vascular Plant	RARE G5 S1		М	H 1937-08-18		MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18
田一、	Agalinis acuta SANDPL AIN GERARDIA Vascular Plant	ENDANGERED G1 S1	LE	M	F 1920-09-13		LAKE MONTAUK GREAT POND MONTAUK, S END OF POND [LAKE MONTAUK].	MONTAUK POINT 41 02 42 N 71 54 53 W	4107118 16
22	Amelanchier nanwcketensis NANTUCKET JUNEBERRY Vascular Plant	ENDANGERED G3Q S1		М	Н		MONTAUK POINT	MONTAUK POINT 41 04 13 N 71 51 46 W	4107118 7
	Minuartia caroliniana PINE-BARREN SANDWORT Vascular Plant	RARE G5 S2		М	Н 1947-06-22	SAND BARRENS, SANDY SOIL.	MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18
	Agalinis acuta SANDPLAIN GERARDIA Vascular Plant	END ANGERED G1 S1	LE	М	F 1927-08-28	DRY HILLS, OPEN DOWNS.	MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18
	Carex straminea STRAW SEDGE Vascular Plant	UNPROTECTED G5 S1)	М	H 1921-06-27	OPEN MARSH.	CASWELL CLIFF CLIFFS, EAST OF COTTAGES, MONTAUK. OPEN MARSH.	MONTAUK POINT 41 03 08 N 71 52 43 W	4107118 107
	Oenoihera oakesiana EVENING PRIMROSE Vascular Plant	UNPROTECTEI G4G5Q S2	D	M	H 1923-08-15	SANDY SOIL.	MONTAUK POINT SANDY SOIL, MONTAUK POINT.	MONTAUK POINT 41 04 09 N 71 52 13 W	4107118 18

Natural Heritage Report o.

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	SUFFOLK EAST HAMPTON Spiranthes vernalis GRASSLEAF LADIES'-TRESSES Vascular Plant	RARE G5 S1		М	H 1927-08-20	1927-08-20: MOIST, ROCKY HILLSIDE; 1927-07-30: CATTAIL SWAMP.	BIG REED POND 1927-08-20: MOIST ROCKY HILLSIDE, MONTAUK, SOUTH OF REED POND. 1927-07-30: REED POINT, CATTAIL SWAMP.	MONTAUK POINT 41 04 25 N 71 54 49 W	4107118 108
四日	Platanthera cristata CRESTED FRINGED ORCHIS Vascular Plant	THREATENED G5 S1		M	H 1951-08-01	"APPARENTLY DRY PINE BARRENS".	MONTAUK POINT	MONTAUK POINT 41 04 09 N 71 52 11 W	4107118 36
22	Nicrophorus americanus AMERICAN BURYING BEETLE Beetle	ENDANGERED G1 SH	LE	M	Н		MONTAUK POINT	MONTAUK POINT 41 04 24 N 71 51 46 W	4107118 4 ESU
	Powmogeton pulcher SPOTTED PONDWEED Vascular Plant	UNPROTECTED G5 S2	1	M	H 1938-08-27	IN POOL.	OYSTER POND IN POOL NEAR OYSTER POND. POOL EAST END OF OYSTER POND.	MONTAUK POINT 41 04 06 N 71 53 47 W	4107118

- * SUFFOLK, NY STATE WATERS
- ** EAST HAMPTON, NY STATE WATERS

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* SUFFOLK, NY STATE WATERS ** EAST HAMPTON, NY STATE WATERS Marine rocky intertidal Community	UNPROTECTED G5 S1S2		\$ 2	B 1991-09-07	SUBSTRATE IS LARGE ANGULAR ROCKS, CA 2m DIAMETER, APPARENTLY PLACED AT BASE OF STEEP, SANDY BLUFF FOR EROSION CONTROL. ADJACENT LOWER SLOPE OF BLUFF IS RETAINED BY ROCKS IN WIRE BASKETS (FOR EROSION CONTROL). UPPER SLOPE OF SANDY BLUFF IS GRASSY AND	MONTAUK POINT EAST TIP OF MONTAUK POINT, ABOUT 0.15 MILES EAST OF THE END OF ROUTE 27 AND DUE EAST OF THE LIGHTHOUSE. THE EASIEST ACCESS IS ALONG A TRAIL NORTH OF THE LIGHTHOUSE LE ADING DOWN TO THE BEACH, THEN FOLLOW SHORE SOUTH TO BASE OF BLUFF.	MONTAUK POINT 41 04 13 N 71 51 26 W	4107118 53

32 Records Processed

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DIVISION OF ENVIRONMENTAL PERMITS REGIONAL OFFICES

DIV	IDION OF BINVA		ADDDDOG AND DIFO
REGION	COUNTIES	<u>NAME</u>	ADDRESS AND PHONE NO.
Region 1	Nassau Suffolk	Robert Greene Permit Administrator	Loop Road, Bldg. 40 SUNY Stony Brook, NY 11790-2356 (516) 444-0365
Region 2	New York City	George Danskin Permit Administrator	Hunters Point Plaza 4740 21st Street Long Island City, NY 11101-5407 (718) 482-4997
Region 3	Dutchess Orange Putnam Rockland, Sullivan Ulster, Westchester	Margaret Duke Permit Administrator	21 South Putt Corners Road New Paltz, NY 12561-1696 (914) 256-3059
Region 4	Albany Columbia Delaware Greene, Montgomer Rensselaer, Schene	• ·	1150 N. Westcott Road Schenectady, NY 12306-2014 (518) 357-2234
Region 5	Clinton Essex Franklin Fulton, Hamilton Saratoga, Warren,	Richard Wild Permit Administrator Washington	Route 86 Ray Brook, NY 12977 (518) 897-1234
Region 6	Herkimer Jefferson Lewis Oneida, St. Lawrer	Randy Vaas Permit Administrator	State Office Building 317 Washington Street Watertown, NY 13601 (315) 785-2246
Region 7	Broome Cayuga Chenango Cortland, Madisor Oswego, Tioga, T	•	615 Erie Blvd. West Syracuse, NY 13204-2400 (315) 426-7439
Region 8	Chemung Genesee Livingston Monroe, Ontario, Schuyler, Seneca, Wayne, Yates		6274 East Avon-Lima Road Avon, NY 14414 (716) 226-2466
Region 9	Allegany Cattaraugus Chautauqua Erie, Niagara, Wy	Steven Doleski Permit Administrator yoming	270 Michigan Avenue Buffalo, NY 14203-2999 (716) 851-7165

USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 700 Troy-Schenectady Road, Latham NY 12110-2400 phone: (518) 783-3932

NATURAL HERITAGE PROGRAM: The Natural Heritage Program is an ongoing, systematic, scientific inventory whose goal is to compile and maintain data on the rare plants and animals native to New York State, and significant ecological communities. The data provided in the report facilitate sound r vg. conservation, and natural resource management and help to conserve the plants, animals and ecological communities that represent New York's nature e.

DATA SENSITIVITY: The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-house use and should not be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

NATURAL HERITAGE REPORTS (may contain any of the following types of data):

COUNTY NAME: County where the occurrence of a rare species or significant ecological community is located.

TOWN NAME: Town where the occurrence of a rare species or significant ecological community is located.

USGS 7 1/2 TOPOGRAPHIC MAP: Name of 7.5 minute US Geological Survey (USGS) quadrangle map (scale 1:24,000).

LAT: Centrum latitude coordinate of the location of the occurrence. Caution: latitude & longitude must be used with PRECISION (e.g. the location of an occurrence with M (minute) precision is not precisely known & is thought to occur within a 1.5 mile radius of the latitude/longitude coordinates).

LONG: Centrum longitude coordinate of the location of the occurrence. See also LAT above.

PRECISION: S - seconds: location known precisely. (within a 300' or 1-second radius of the latitude and longitude given.

M - minutes: location known only to within a 1.5 mile (1 minute) radius of the latitude and longitude given.

G - general: location known to within a 5 mile radius of the latitude and longitude given.

SIZE (acres): Approximate acres occupied by the rare species or significant ecological community at this location.

SCIENTIFIC NAME: Scientific name of the occurrence of a rare species or significant ecological community...

COMMON NAME: Common name of the occurrence of a rare species or significant ecological community.

ELEMENT TYPE: Type of element (i.e. plant, animal, significant ecological community, other, etc.)

LAST SEEN: Year rare species or significant ecological community last observed extant at this location.

EO RANK: Comparative evaluation summarizing the quality, condition, viability and defensibility of this occurrence. Use with LAST SEEN and PRECISION.

A-E = Extant: A-excellent, B-good, C-marginal, D-poor, E-extant but with insufficient data to assign a rank of A - D.

F = Failed to find. Did not locate species, but habitat is still there and further field work is justified.

H = Historical. Historical occurrence without any recent field information.

X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.

? = Unknown.

Blank = Not assigned.

NEW YORK STATE STATUS (animals): Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

E = Endangered Species: any species which meet one of the following criteria:

1) Any native species in imminent danger of extirpation or extinction in New York.

2) Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFT

T = Threatened Species: any species which meet one of the following criteria:

1) Any native species likely to become an endangered species within the foreseeable future in NY.

2) Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

SC = Special Concern Species: those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).

P = Protected Wildlife (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.

U = Unprotected (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to

take may be required.

G = Game (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

NEW YORK STATE STATUS (plants): The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservation Law section 9-1503.

(blank) = no state status

E = Endangered Species: listed species are those with:

1) 5 or fewer extant sites, or

2) fewer than 1,000 individuals, or

3) restricted to fewer than 4 U.S.G.S. 7 1/2 minute topographical maps, or

4) species listed as endangered by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

T = Threatened: listed species are those with:

1) 6 to fewer than 20 extant sites, or

2) 1,000 to fewer than 3,000 individuals, or

3) restricted to not less than 4 or more than 7 U.S.G.S. 7 and 1/2 minute topographical maps, or

4) listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

R = Rare: listed species have:

1) 20 to 35 extant sites, or

2) 3,000 to 5,000 individuals statewide.

U = Unprotected

V = Exploitably vulnerable; listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked.

NEW YORK STATE STATUS (communities): At this time there are no categories defined for communities.

continued on next page

FEDERAL STATUS (plants and animals): The categories of federal status are defined by the United States Department of the Interior as part of the 1974 Endangered Species Act (see Code of Federal Regulations 50 CFR 17). The species listed under this law are enumerated in the Federal Register vol. 50, no. 188 рр. 39526 - 39527.

_Chlank) = No Federal Endangered Species Act status.

- The taxon is formally listed as endangered.

- The taxon is formally listed as threatened.

.:.LT = The taxon is formally listed as endangered in part of its range and threatened in other parts.

PE = The taxon is proposed as endangered.

PT = The taxon is proposed as threatened.

C1 = Candidate, category 1 - There is sufficient information to list the taxon as endangered or threatened.

C2 = Candidate, category 2 - The taxon may be appropriate for listing but more data are needed.

3A = The taxon considered extinct by the U.S. Fish and Wildlife Service (USFWS).

3B = The taxon is no longer considered taxonomically distinct by the USFWS and thus is not appropriate for listing.

3C = The taxon has been shown to be more abundant, widespread, or better protected than previously thought and therefore not in need of official listing.

= The taxon is possibly extinct.

** = The taxon is thought to be extinct in the wild but extant in cultivation.

Additional codes:

(C2NL) = Heritage code indicating that the taxon is a candidate in some areas, not listed in other areas.

(E/SA) = Heritage code indicating that the taxon is endangered because of similarity of appearance to other endangered species or subspecies.

FEDERAL STATUS (ecological communities): At this time there are no federal status categories defined for ecological communities.

GLOBAL AND STATE RANKS (animals, plants, ecological communities and others): Each element has a global and state rank as determined by the NY Natural Heritage Program. These ranks carry no legal weight. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State. Infraspecific taxa are also assigned a taxon rank to reflect the infraspecific taxon's rank throughout the world.

GLOBAL RANK

G1 = Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres, or miles of stream) or especially vulnerable to extinction because of some factor of its biology.

G2 = Imperiled globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.

G3 = Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g. a physiographic region), or vulnerable to extinction throughout its range because of other factors.

G4 - Apparently secure globally, though it may be quite rare in parts of its range, especially at the periphery.

G5 - Demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.

GH = Historically known, with the expectation that it might be rediscovered.

X = Species believed to be extinct.

= Status unknown.

ATE RANK

SI = Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.

S2 = Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.

S3 = Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.

S4 = Apparently secure in New York State.

S5 = Demonstrably secure in New York State.

SH = Historically known from New York State, but not seen in the past 15 years.

SX = Apparently extirpated from New York State.

SA = Accidental or casual in the state.

SE = Exotic, not native to New York State.

SP = Element potentially occurs in the state but there are no occurrences reported.

SR = Reported in the state but without persuasive documentation.

SU = Status unknown.

TAXON (T) RANK: The T-ranks (T1 - T5) are defined the same way the Global ranks (G1 - G5) are but the T-rank only refers to the rarity of the subspecific taxon of the species as a whole.

T1 through T5 = See Global Rank definitions above.

Q = Indicates a question exists whether or not the taxon is a good taxonomic entity.

? = Indicates a question exists about the rank.

OFFICE USE: Information for use by the Natural Heritage Program.

SIGNIFICANT HABITAT DATABASE REPORTS (Use of this database is slowly being discontinued as the data is integrated into Heritage databases) REPORT ID: Significant habitat file code.

NAME OF AREA: Site name where the significant habitat is located.

TYPE OF AREA: Type of significant habitat.
COUNTY/TOWN OR CITY: County and town where the significant habitat is located.

QUADRANGLE: Name of the USGS 7.5 minute topographic map where the significant habitat is located.

LATITUDE: Latitude coordinate (degrees, minutes, seconds) for the location of the significant habitat.

LONGITUDE: Longitude coordinate for the location of the significant habitat.

1122/96

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

APPENDIX F

LETTERS/MEMORANDUMS/MISCELLANEOUS ITEMS

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- F-1. Memorandum (W/Endorsements) Describing the Revision of Harbor Defense Projects (to Include Montauk Point) in the Continental United States, 19 July 1938 (B-43).
- F-2. Memorandum Endorsement Directing the Acquisition of 486.66 Acres of Land at Montauk, Long Island, New York (Due to a Military Necessity) for an Approved Harbor Defense Installation Site, 26 August 1941 (B-44).
- F-3. Memorandum Changing the Designation of Battery 113 of Montauk Point to Battery Dunn, 10 August 1942 (B-45).
- F-4. Memorandum Regarding the Shipment of 16" Guns for Battery Dunn of Montauk Point, 9 October 1942 (B-46).
- F-5. Memorandum (W/Endorsement) Regarding Housing Construction at Camp Hero, Montauk Point, New York, 14 November 1942 (B-47).
- F-6. Table Containing Information Regarding 6-Inch Gun Batteries, To Include Battery 216 of Camp Hero, circa 1943 (B-48).
- F-7. Table Containing Information Regarding 16-Inch Gun Batteries, To Include Batteries 112 and 113 of Camp Hero, circa 1943 (B-49).
- F-8. Memorandum (W/Enclosures) Regarding the Obscurement of Camp Hero, 4 May 1943 (B-50).
- F-9. Memorandum Regarding the Antiaircraft Defense Project for Camp Hero, 14 September 1943 (B-51).
- F-10. Department of the Army General Orders Regarding Discontinuation of Harbor Defense Sites to Include Camp Hero, 3 January 1950 (B-52).
- F-11. Department of the Army General Orders Placing Camp Hero in an Inactive Status, 3 January 1958 (B-53).
- F-12. Historical Data Card Reflecting Camp Heo History, circa 1961 (B-54).

- F-13. U.S. Naval Institute Proceedings Illustrating the Final Era of American Harbor Defenses, January 1968 (B-55).
- F-14. Letter (w/attachments) Describing the History of Camp Hero (B-56).
- F-15. Book Exerpt Showing the Lineage of Coast Artillery Regiments, the $11^{\rm th}$ and $242^{\rm nd}$ Coast Artillery Regiments were Assigned to Fort H.G. Wright and Manned Camp Hero During World War II, 1984 (B-57).
- F-16. Book Exerpt Describing Camp Hero Activity, unknown date (B-58).
- F-17. United States Air Force Book Exerpt Provides a Historical Summary of Air Force Radar Equipment at Camp Hero/Montauk, 1984 (B-59).
- F-18. Defense Environmental Restoration Program Site Eligibility Policy Clarification for Ordnance and Explosive Waste at Formerly Used Defense Sites1, 5 March 1994 (B-143).

WAR DEPARTMENT The Adjutant General's Office Washington

AG 660.2 (7-15-38) (Misc.)-E

July 19, 1938.

Subject: Revision of Harbor Defense Projects, Continental

United States.

SECRET Auth: T.A.G.

onited blaces,

Initials: E.R.H.

To: President of the Harbor Defense Board.

Date: July 19, 1938

12 mar 6-7/1.299

- 1. With reference to the recommendations contained in paragraph 3 of your letter (AG 660.2 (4-26-38)), dated April 26, 1938, subject: "Revision of Harbor Defense Projects, Continental United States", the submission of additional information is desired concerning the following:
 - a. Whether or not the batteries and accessory installations proposed in subparagraphs 3 a. b., and c. will be located on existing military reservations, or will require the peacetime acquisition of additional real estate.
 - b. Where location of defensive elements would require the acquisition of real estate, such information as can be tentatively furnished, covering the extent and location of such acquisitions.
 - c. The estimated cost of:

Batteries - including auxiliaries, as for example, magazines, fire control stations, power plants, etc.

Additional Real Estate - where previous estimates are available, the percentage increases of the new estimate over the old.

Additional barracks, quarters, power plants, sewerage, etc.

d. The increase or decrease in estimated cost of the proposed installations as compared to those included in the present approved projects for the areas concerned.

INCLOSURE 2.

- 1 .

F-1:

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e. The increase or decrease in personnel requirements for peacetime maintenance at the proposed installations, as compared to those included in present approved projects.

By order of the Secretary of War:

E. R. Householder. Adjutant General.

662.1/L-2

1st Ind.

War Department, Office, Chief of Coast Artillery, July 30, 1938. - To: The Adjutant General.

- 1. Reference is made to paragraph 1 a, basic letter. (Acquisition of additional land.)
- a. LOS ANGELES AND SAN DIEGO. It is understood that as a result of reconnaissances made by the Chief of Engineers, available sites on military reservations for 16-inch fixed gun batteries of two guns each can be utilized in the vicinity of Fort Rosecrans and in the vicinity of Fort MacArthur. Accordingly no peace time acquisition of additional real estate appears to be required at those stations. The precise location of seacoast batteries should originate with the local site board (paragraph 30, AR 100-20).
- b. MONTAUK POINT. The approved site board report (Report of the Harbor Defense Board of First Corps Area (OCCA 662/CD-21, 1-30-33)) provides for a 100 acre site in the town at East Hampton, Suffolk County, Long Island, New York, for the location of a 16-inch fixed gun battery of two guns at Montauk Point. This location was provided as an alternate site for the railway battery now in the approved project. Reference is made to the 8th Indorsement, subject "Recommendation for Acquisition of Land for Seacoast Armament, Harbor Defenses of Narragansett Bay and Long Island Sound" dated the Headquarters, First Corps Area, May 3, 1938 (OCCA 601/17-B), which states the cost of the land in question was at that time approximately \$50,000. The fire control stations and accessories for the 14-inch railway battery in the approved project apply without modification to the proposed 16-inch fixed gun battery of two guns.
 - c. CAPE HENIOPEN. A site for the 16-inch fixed gun battery

of two guns proposed at Cape Henlopen, Delaware, is available on the United States Fort Reservation, shown on Exhibits 7-A and 8-A of the approved project of the Harbor Defenses of The Delaware, Inclosure 1 and 2. The present approved site of the 14-inch railway battery is on the quarantine station owned by the United States and contiguous to the United States Fort Reservation. Accordingly no peace time acquisition of real estate is required. The fire control stations and accessories for the 14-inch railway battery in the approved project apply without modification to the proposed 16-inch fixed gun battery of two guns.

- d. CAPE CHARLES. The installation of a 16-inch fixed gun battery of two guns in the vicinity of Cape Charles, Virginia, will require the acquisition of approximately 100 acres of land, unless the battery is located on Fishermans Island, owned by the United States. An estimate of \$250 per acre, total \$25,000 was submitted by Mr. H. A. Wise, Cape Charles, Virginia, on July 15, 1938, as a fair value of farm land in that vicinity. The peace time acquisition of land for distant fire control stations for this proposed battery is not considered necessary. The precise location of seacoast batteries should originate with the local site board (paragraph 30, AR 100-20).
- CAPE HENRY. Due to the restricted area of Fort Story, it is impossible to state at this time whether a two gun 16-inch fixed seacoast battery can be installed there without the procurement of additional land. It is a question requiring consideration by the local site board. However, a map study does indicate possibility of emplacing such a battery on the present reservation. The installation of a 16-inch fixed battery was approved by the Secretary of War in the 38th Indorsement, dated the War Department, August 9, 1929 on letter subject "Inquiry as to land available near Cape Henry, Virginia, for 15-inch gun battery approved for Fort Story, Virginia, " dated The Adjutant General's Office, April 30, 1926, (AG 472.3 44-30-26) (Misc. E) (OCCA 662/6-C-28), but at a later date a 14inch railway battery was substituted in the project for the 16-inch battery. The Secretary's approval provided for the acquisition of 38.9 acres of Land southeast of Fort Story at an estimated cost of \$144,000. It is understood that this land has now increased greatly in value and probably could not be purchased for less than \$389,000.
- 2. Reference is made to paragraph 1 b, basic letter. (Extent of acquisitions).
- a. MONTAUK POINT. The extent and location of the 100 acre tract required for the 16-inch fixed gun battery of two guns at Montauk Point is shown on Exhibit 14-B of the approved project for the Harbor Defenses of Long Island Sound. The site is located in the town of East

Hampton, Suffolk County, Long Island, New York, Inclosure 3.

- b. CAPE CHARLES. The location of the 100 acre tract required for the 16-inch fixed gun battery of two guns in the vicinity of Cape Charles, Virginia, will be on the mainland of Cape Charles, shown on Exhibit 3-A of the approved project for the Harbor Defenses of Chesapeake Bay, Inclosure 4, or on Fishermans Island, shown on Exhibit 24-B of same project, Inclosure 5.
- c. CAPE HENRY. The location of the 38 acre tract which may be required in order to install the 16-inch gun battery at Fort Story is shown on Exhibit 2-A to the approved project for the Harbor Defenses of Chesapeake Bay, Inclosure 6.
- 3. Reference is made to paragraph 1 c, basic letter. (Estimated costs).
- a. The estimated cost of batteries, including auxiliaries, as, for example, magazines, fire control station, power plants is shown on Inclosure 7.
- b. The estimated costs of additional real estate, where previous estimates are available and the percentage increases of the new estimates over the old are shown as follows:

	Location	Original Cost Estimate	Increase
Montaul	c Point	\$ 50,000	None. Estimate made in 1938.
Cape Cl	narles	25,000	None. Estimate made in 1938.
Fort S	tory %	144,000	150%. \$4,000 per acre in- creased to \$10,000 per acre.

- c. Additional power plants, sowerage, etc. Power plants and battery sewerage are included in the cost of emplacement shown on Inclosure 7. No additional barracks and quarters are required.
- 4. Reference is made to paragraph 1 d, basic letter. (Comparison of costs).
 - a. The increases or decreases in estimated cost of the pro-

posed installations as compared to those included in the present approved project for the areas concerned are shown on Inclosure 7.

b. To summarize, it is estimated that:

- (1) To substitute 16-inch fixed batteries of two guns each for the 14-inch railway batteries now included in the projects for Montauk Point, Cape Henlopen, and Fort Story will cost a total of \$2,829,950 in excess of the cost of the 14-inch railway batteries. If land is to be procured at Fort Story it may be necessary to add as much as \$389,000 to this figure.
- (2) To substitute a two gun 16-inch fixed battery at Cape Charles for the 14-inch railway battery now approved for Fort Monroe will cost \$1,035,974 in excess of the cost of the 14-inch railway battery; and
- (3) To augment the defenses at Fort Rosecrans and Fort MacArthur by a two gun 16-inch fixed battery at each place will cost a total of \$4,258,190.
- 5. Reference is made to paragraph 1 e. basic letter. (Personnel requirements). The increases in personnel requirements for peace time maintenance at the proposed installations as compared to these included in present approved project:

<u>Location</u> <u>Increase</u>

Harbor Defenses of Los Angeles	1 NCO 6 Privates
Harbor Defenses of San Diego	1 NCO 6 Privates
Montauk Point	None
Cape Henlopen	None
Cape Charles	None
Fort Story	None

Upon installation, the 16-inch fixed gun batteries of two-guns each will probably be constituted in Class B for maintenance, on a caretaking status. The same personnel required to maintain 14-inch railway batteries will be required to maintain the proposed 16-inch fixed gun batteries of two guns each. One non-commissioned officer and six privates are required additionally for the maintenance of each of the 16-inch fixed batteries of two guns proposed at the Harbor Defenses of San Diego and the Harbor Defenses of Los Angeles. This additional personnel can be made available from present garrisons of those harbor defenses.

- 6. The type of two gun 16-inch fixed emplacement referred to in the foregoing tabulations is that recommended by the Chief of Engineers for future two gun 16-inch fixed emplacements, in letter to The Adjutant General, dated May 31, 1938, subject "Type Emplacement, 16-inch gun on Barbette Carriage with Steel Cover Protection," (C of E 662B) (OCCA 662/E-22). The estimated cost of Engineer work for a battery of this type exclusive of land and reserve ammunition storage, is given as \$950,000 in the same letter. The Ordnance cost of installation, including overhead cover, is \$1,040,000 per battery. In this regard reference is made to 2d Indorsement dated July 15, 1938, on same letter (00 660.2/299),
- 7. The foregoing tabulations of relative costs of 14-inch railway and 16-inch fixed batteries of two guns indicate the lesser cost of the railway battery. However, it is desired to point out the deficiencies of major caliber railway artillery gun batteries.
- a. The 14-inch railway batteries installed in Panama and in the Harbor Defenses of Los Angeles have not proved satisfactory in all respects. Numerous operating deficiencies have developed which are inherent with major caliber railway gun batteries.
- b. The 14-inch railway gun has less power, less accuracy, and is considerably more difficult to maintain than the 16-inch fixed mount.
- c. The 14-inch railway mount requires that an expensive gun block be installed before a traverse greater than 7 degrees can be effected.
- d. On the same coast, the 14-inch railway gun has no tactical mobility, since it cannot be moved from place to place in anticipation of attacks from a highly mobile hostile fleet.

: 1

- e. It is practically impossible to protect the luinch railway gun by material overhead cover.
- f. Camouflage for a luinch railway battery is very difficult, for the telltale railway tracks always point to the emplacement.
- g. Since the 14-inch railway gun is not tactically mobile, an equal number of 14-inch railway guns will be required as would be needed if 16-inch fixed guns were substituted.
- h. A 16-inch fixed gun battery is much more powerful, more accurate and can be given overhead protection.

- i. The transient status of railway bridges and access tracks and the effect of weather conditions on railway road beds are deficiencies always to be encountered in the employment of major caliber railway artillery gun batteries. If, as is doubtful, a 14-inch railway gun can be taken over the present tracks and trestles, it is most improbable that such movement could be made two years from now either in the region of Cape Henry or Cape Charles. In these cases the serving railroad facilities are said to be scheduled for abandonment.
- 8. It is believed the importance of the missions assigned to the harbor defenses in the Continental United States justifies the additional expense involved in the substitution of 16-inch fixed batteries for 14-inch railway batteries.

OSCAR WESTOVER,
Major General,
Chief, Air Corps.
President, Harbor Defense Board.

7 Incls.
(1-6 Exhibits
7 Cost data in dup.)

(Inclosures omitted)

CONFIDENTIAL

SUBJECT: Asquisition of Land, Montauk Point, Long Island, M. T.

AG 601.1 (6-14-41)100-D

11th Ind.

LFL/gwd-1712

War Department, A.G.O., August 26, 19Al. - To: Under Secretary of War.

The Secretary of War directs that you be advised as follows:

. There is a military necessity for the acquisition of approximately 468,666 acres of land at a cost of approximately \$275,000, at Montauk, Long Island, M. Y., as a site for approved harbor defence installations, as outlined in the inclosed papers.

b. Funds for this project will be made available by the Chief of Coast Artillery and the Chief of Engineers.

g. So much of these papers is removed from a confidential status as is necessary to acquire the land in question.

CARL ROBINSON

19 Incls. n/c

Adjutant General.

COPIES TO: V Chief of Coast Artillery, ref. his 9th Ind., August 12, 1941, 601/13-D., w/cy of 10th Ind. Chief of Engineers, ref. his 8th Ind., August 6, 1941, C. of E. 662B(Long Island)69, w/cy of

9th & 10th Inds.

Commanding General, First Corps Area, w/cy of basic ltr., lst, 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th & 10th Inds.





601/12-D

- 11 -

CONFIDENTIAL

SUBJECT: Designation of Battery 113.

TO:

THE RESIDENCE OF THE PROPERTY OF THE PROPERTY

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Chief of Engineers.

Battery 113 at Montauk Point, Harbor Defenses of Long Island Sound, is designated "Battery Dunn" in honor of the late Colonel John M. Dunn.

By order of the Secretary of War:

Adjutant General.

Copies furnished:

Commanding Generals:
Army Ground Forces.
Army Air Forces.
Services of Supply,
All Armies.

All Service Commanders, Chiefs of Supply Services, Services of Supply. Divisions of the War Department General Staff. Publication Branch, AGO.

Chief, Statistics Branch, War Department

General Staff.
Commanding Officers:

Augusta Arsenal, Ga. Benicia Arsenal, Calif. Raritan Arsenal, N. J.

Rock Island Arsenal, Ill.

San Antonio Arsenal, Tex.

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TO INSURE PROMPT ATTENTION
IN REPLYING REFER TO:

WAR DEPARTMENT

OFFICE OF THE CHIEF OF ORDNANCE

WASHINGTON, D. C.

ATTENTION OF

Tos

SPOTE

October 9, 1942.

Subject: 16" Guns, Battery Dunn, Harbor Defense of Long Island Sound, Montank Point, Long Island, New York.

Office of the Chief of Engineers, Washington, D. C.

1. In order to relieve storage conditions at the watervliet Arsenal, it will be necessary to make immediate shipment to the above installation of the 2 - 16" guns assigned to Battery 13. It is understood that such an arrangement will be satisfactory to your office and the District Engineer, New York, N. Y.

2. It is also understood that the District Engineer will arrange for the delivery of these guns from the railroad terminus to the battery site, and funds to cover this movement will be furnished on receipt of information as to the amount involved.

3. Accordingly, shipping order number 128636 has been issued to cover the above shipment, and a copy of this order forwarded under separate cover.

For the Chief of Ordnance:

Filmy

D. B. WILLETS, Major, Ord. Bept., Assistant.

Copy the ODistrict Angineer, New York.

[57] Commanding General, First Service Command.

Office of Chief of Engineers, Room 6131, New Lar Dept Clig., 21st and Virginia Ave., N. ...

Field Dervice, General Supply (Er. Lorris)

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November 14. 1942.

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(ltr fr MES, Boston, Mass., file 600.1, dated Mor. 14, 1942, subj. "Housing Construction, Camp Hero, Montank Point, New Yorks - cont d.)

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- a Stat Priority -Site , consisting of
 - 1 Pirehouse

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 - Administration building
 - A Surd Was
 - 1 Seating Room

Date of apposplishments 6-1-4). Resident Provision of medical facilities for unit assigned.

- e. 5th Priority—Cite P, consisting of
 - . L Barehouse
 - A Motor Repair Shop

Date of speeds labount: 6-1-43.

Beasons Provision of storage and repair facilities for anil.

- f. 6th Priority-Site H, consisting of:
 - 1 PX and P.O.
 - 1 Recreation Building

Date of accomplishments 6-1-43. Reasons Prevision of facilities for unit assigned.

7th Priority-Site E, consisting of

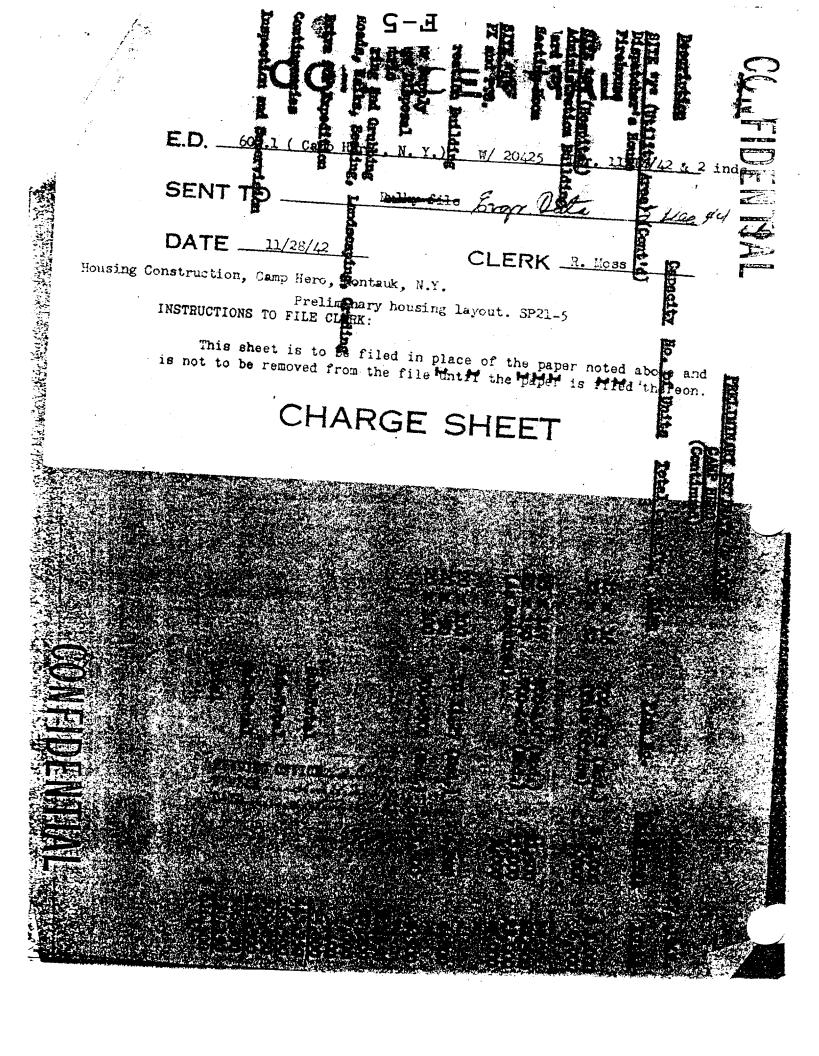
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24 :		W Karr. Bay	: Pt. Judith 9a	e Peb. 1943	: Ing. 1942	A
25 :		: Narr. Bay	: Warren Pto you	reb. 1943	: Ing. 1942	A
-26 :		: Long Is Sound	: Wontank Pt. On		: Oct., 1942	A
27 :	219	: Sandy Hook	: Havesink	المتلاحية المراجع	: Dec 19/2	A
28 :		: Delaware	: Cape Henlopen Jan	4 Mars 1943	: Sept. 1942	A
29 :		: Long Is. Sound			e Sept. 1942	A
30 r					: Bept. 1942	A .
31 :		* Portland	: Peak Island det	1 Apr. 1943	: Kov. 1942	A
32 :		: Chos. Bay	: Fisherman Is.	1 Apr. 1943	: Dec. 1942	A
33 ı	,	: Boston	: Outer Brewster 26	: Apr. 1943	: Nov. 1942	A
34 :	•	r Puget Sound	: Partridge Point Me	4 Apr. 1943	: Dec. 1942	A
35 :		S San Diego	: Coronado Heights	a Apr. 1943	: Oct 1942	Ā
36 :	222	: Delaware	: Cape Henlopen : >	& Apr. 1943	: Oct. 1942	A
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37 :	235	: Galveston	: Bt. Sen Jacinto 716		: Bopt. 1942	
38	240	Los Angeles		4 July , 1943	; Dot. 1942	À
39	213	Harr. Bay		12 1943	: Nov. 1942	A
40	206	Boston		, May 1943	, Dec. 1922	B
41 3	237	San Diego		is May, 1943	, Apr., 1943	B B
42 1	206	Boston		12 June, 1943	: Mar. 1943	B
43 :	210	New Bedford		Jime, 1943	: Teb. 1923	B B
44 2	230	Charleston		1943 June 1943	1 May 1943	
45	247	Columbia		4. June, 1943	: June, 1943	B
46	223	Dolavare		4 Junes, 1943	1 Feb. 1943	B =
47	202	Portland		4 June 1943	1 June, 1943	B =
48	204	Portsmouth		4 July 1943	1 July, 1943	B
49	265	Roosevelt Rds.	2 Pineros Island 7H	d July, 1943	: Har. 1943	B
50 :		Roosevelt Rds.	1 Mt. Pirate 710	4 July, 1943	TAPE 1949	*B 🚅
51 · 2	266	Roosevelt Rds.	: Point Mula 70	y July, 1943	1 May, 1943	B
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56 :	311	Roosevelt Rds.	: Cape San Juan	nec 1963	: June, 1943	B
57 1	31.5	Roosevelt Rds.	# H111 411 St. Thoma		: June, 1943	B
58	226 :	Chesapeake Bay	: Ft. Story	micAvg. 1943	: Jan. 1943	B _
59 :	208 :	Boston		Wing. 1943	: Sept. 1943	T 25
60 :	220 :	Sandy Hook		4 Sept 1943	: Hay, 1943	
61 :	249	Puget Sound		14 Sept. 1943	: May, 1943	Þ
62 :	245	Columbia	: Ft. Stevens	mly Sopt. 1943	: Sept. 1943	B
63 :	205	Portsmouth	: Hr. Ft. Foster &	M Sept. 1943	: Oct. 1943	B :=
64 :	233	: Pensacola	: Ft. McBae	4 Sept. 1943	: June, 1943	В
65 :	242 :	Los Angeles	: Sunset Beach - Qu	# Sept. 1943	: June, 1943	B
66 :		Key West		4 0dt. 1943	: May, 1943	·B
67 :		Long Is. Sound		k Odt. 1943	: July, 1943	B
68 :	218	So. New York	: Ft. Wadsworth Se	7: Oct. 1943	: Oct. 1943	B
69 :	241	: Los Angeles		E Opt. 1943	: Sept. 1943	В
70 :	243	: San Francisco		14 Hov. 1943	: June, 1943	B
71 :	229	Ches. Bay	: Ft. Wool (Gates) &	H Hdv. 1943	: June, 1943	B
72 :	246	: Columbia	: Ft. Columbia S.	M Nov. 1943	: Nov. 1943	В
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2 ;	120	Ches. Bay	: Ft. Story July:		: Sept. 1942 A
· 3 - 1	118	Delaware		Dec. 1942.	
. 4	122	Ches. Bay	: Ft. Custis Dec :	7eb1943	1943 - A
-5	113	Long Is. Sd.			Mar - 1943 A
6	116	Sandy Book			May 1943 A
7	131	Puget Sound			June, 1943 A
8	127	Los Angeles			Mar, 1943 A
9 10	126	San Diego		July, 1943	May, 1943 A
	104	Boston		Sept. 1943	May, 1943 4
	121	Ches. Bay	: Ft. Story Julye	Sept. 1943	70b. 1943 A
12	112	Long Is. Sd.		0et- 1943	1 Hay, 1943 A
13		Roosevelt Rds.	Pt. Mata Redonda Culp		Indefinitely
14	153	Roosevelt Rds.	: Mt. Pirata Sent	Ded. 1943)	deferred *
15	102	Portland	: Peak Island	Nov. 1943	Oct. 1943 A
16.	103	Portsmouth	: Frost Point Par	Dec 1943	: Nov. 1943 A
17	: 109	Narr. Bay	: Ft. Greene Not	Dec. 1943	: June, 1943 A
	132		: Cape Flattery Deci	Jan. 1944 3	: Dec. 1943 B
19	: 117	Sandy Hook	: Jamaica See Air- :		5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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20	105	Boston	: Deer Island gang	Mer. 1944	: Dec. 1943 B
	129	San Francisco	: Ft. Barry 34:		: Dec. 1943 B
22	154	Roosevelt Rds.	: Mt. Jalobra Mchi	May, 1944)	: Indefinitely
23 ;	1 55	Roosevelt Rds.			: deferred *

Informal information from Operations Division, War Department General Staff (Lt. Colonel Wilson).

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May 4, 1943

CE 618.33(Long Island) Ref. CH 39922 and CH 40101

Obscurement of Camp Hero, Long Island, N. Y., and Highlands, New Jersey.

Col. Albert H. Burten. Fortifications Branch, Construction Division. O.C.E.

The Chief. Engineering Branch. Construction Division, O.C.E. ATTENTION: Col. Saint-Gaudens Rm. 7002.

1. There are inclosed herewiths

g. Letter dated February 19, 1943, from the Histrict Engineer. New York, New York, subject "Obscurement of Camp Hero, Long Island, New Tork* file C. of E. 618.33(Long Island)CH 39922.

- h. Letter from the District Engineer, New York, New York, dated March 19, 1943, subject "Chacurement of Highlands, New Jersey" file 618.33(Highlands, New Jersey)CH 40101.
- 2. Your comments and recommendations are requested as to the adequacy of the proposed plans as recommended by the District and Division Engineers.
- 3. In this connection attention is invited to Paragraph 2 g 9 of War Department directive subject "Passive Protection Measures" dated March 5, 1943, file AG 381(2-25-43)OB-S-SPAAG-N.
- 4. This effice has previously issued directives that camouflage nets should be procured and installed in front of the guns of the casemated batteries.
- 5. Funds requested have already been made available in separate correspondence. As these are fiscal year funds end must be obligated prior to June 30, 1943, decision as to the scope of the work to be done must be expedited. Accordingly, prompt reply by your Branch is desired.

BURTON

BFD

AHB

2 Inole:

C. of E. 618.33 (Long Inland) CH 39922, w/5 Inda. and 7 incls., (Incls. in dupl.)

C. of E. 618.33 (Highlands, H. J.) OH 40101, W/ 3 Inde. and 7 incls.

DECLASSIFIED

t NY 44.1/6.18

WAR DEPARTMENT UNITED STATES ENGINEER OFFICE NEW YORK DISTRICT ROOM 601, 120 WALL ST. NEW YORK, N. Y.

Fort NY 44.1/6.18 (NAE-ST)

February 19, 1943.

Subject: Obscurement of Camp Hero, Long Island, N. Y.

To:

The Chief of Engineer,

U. S. Army,

Washington, D. C.

Thru:

The Division Engineer,

North Atlantic Division.

618.33 (Long Island)(2-19-43) Reference is made to Circular Letter No. 1086 dated January 17. 1942, subject: "Dispersion, Concealment, and Camouflage of All Camps and Stations.*

- Forwarded herewith is a preliminary study of the obscurement of Camp Hero, Long Island, N. Y. The following items are included:
 - a. An aerial photograph of Camp Hero and vicinity.
- b. A tone rendering of the proposed scheme for the obscurement of Camp Hero.
 - c. A working layout for the same.
- d. A detailed estimate of the construction cost for the obscurement of Camp Hero.
 - 3. The construction is estimated to cost:

Total Cost

\$ 297,703.00

Funds previously

authorized

157,703.00

Additional funds \$ 140,000.00 necessary

This office recommends that the work listed in the estimate be authorized and instructions for the same be forwarded to this office at the earliest possible date.

4 Incls.

#1-Aerial Photo (In tripl.)

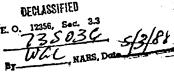
#2-Tone Rendering *

#3-Dwg. CAM-21-8 "

#4-Prel. Estimate *

/s/E. W. GARBISCH, Lt. Col., Corps of Engineers, Acting District Engineer.





n 39922

CONFIDENTIAL

Subject: Obscurement of Camp Hero, Long Island, N.Y. (2-19-3)

NA 618.3 (Camp Hero, L.I., N.Y.) 1

lst Ind.

NADE 4

Office, Division Engineer, NORTH ATLANTIC DIVISION, New York City, Warch 4, 1943

To: The District Engineer, NEW YORK, N.Y.

- 1. The following additional information is requested to accompany the preliminary study of the Obscurement of Camp Hero:
 - a. Paragraph 1. Reference should also be made to paragraph 6, Circular Letter No. 1216, dated February 17, 1942.
 - b. General plan showing all batteries, plotting rooms, control posts, fire towers, and other vital installations. Also the locations of cantonment and other building areas, lighthouse, parking spaces, hotels, ponds, etc., both within and adjacent to the reservations. It is impossible to adequately review the project without having this complete information.
 - c. Reference is made to item "Ground toning 85,000 sq. 7ds. 4 10¢". What treatments are proposed and the locations of same.
 - d. Reference is made to item "Grading 36,650 cubic yards @ \$1.00". Where and for what purpose is the grading to be carried out.
 - e. State Obscurement measures accomplished to date.
 - f. The altitude from which the aerial photographs submitted with the basic communication were made, together with the focal length of the camera. If available, the submission of oblique photographs is also requested.
- 2. Your attention is invited to the fact that basic communication has not been signed.

For the Division Engineer:

/s/CLARENCE E. BOESCH Colonel, Corps of Engineers

4 Incls. n/c (1 copy withdrawn)

DECLASSIFIED

WCL WARS, Date

CONFERENTIAL

CONFIDENTIAL

Fort NY 44.1/6.18 (NYE-2L)

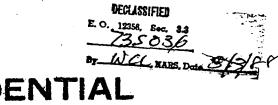
Subject: Obscurement of Camp Hero, Long Island, N. Y.

2nd Ind.

U. S. Engineer Office, New York District, New York, N. Y. March 16, 1943. To: The Division Engineer, North Atlantic Division.

- Reference is made to paragraph 1 of the 1st Indorsement. The following information is furnished:
- a. Par. 1 b: Inclosure No. 1 is marked to indicate the locations of the following features:
 - 1-AM-1.0.
 - 1-AM-1.1.
 - 1-AM-3.0.
 - 3-AM-0.41.
 - 3-AM-0.42.
 - 3-AM-0.31.
 - 3-AM-0.85.
 - Reservoirs.
 - Access Roads.
 - (10) Lighthouse.

 - Proposed locations for cantonment area. (11)
 - (12)Parking space.
 - Old hotel.
 - Ponds. (14)
- b. Par. 1 c: "Ground toning 85,000 sq. yds. @ \$.10" applies to a spray application of bituminous coating or equal on the access roads.
- c. Par. 1 d: "Grading 36,650 cubic yards @ \$1.00" applies to obscurement grading on casemated installations.
 - d. Par. 1 e: Obscurement measures accomplished to date include:
 - A portion of the planting on the scarred areas along (1) access roads.
 - (2) A portion of the planting at 1-AM-3.0.
 - A portion of the obscurement grading as defined in (3) par. 1 c above.



COMPTDENTIAL

Fort NY 44.1/6.18 (NYE-2L)

Subject: Obscurement of Camp Hero, Long Island, N. Y.

2nd Ind. (Cont'd.)

- e. The following data apply to the aerial photograph:
 - (1) Date: November 22, 1942.
 - (2) Hour: 12-30 PM EWT
 - (3) Altitude: 10,000 feet.
 - (4) Lens: 12" focal length.
 - (5) Approx. Scale: 1" 833'. (The reproduction is approximately 1" = 800'.

Prints of three oblique photographs are also inclosed.

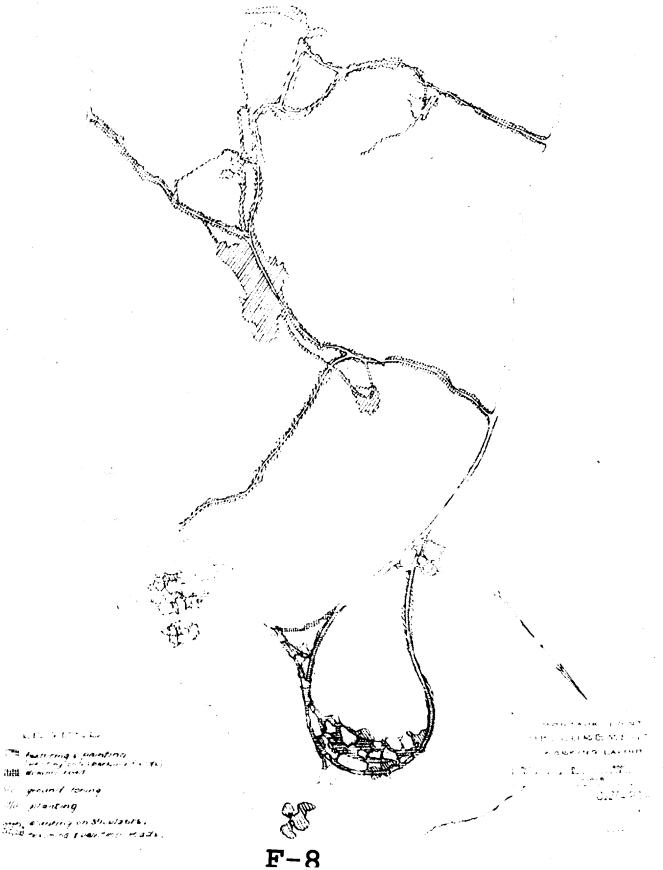
For the Acting District Engineer:

/s/CHARLES K. PANISH
Lt. Colonel, Corps of Engineers
Executive Assistant

7 Incls.
#1-Aerial Photo (In dupl)
#2-Tone Rendering " "
#3-Drwg. CAM-21-8 " "
#4-Prel. Estimate " "
Added:
#5-Oblique Photo No. 308.81 (In trip.)
#6- " " " 308.82 " "
#7- " " " 308.84 " "



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? Ground toning parking areas 9,500 sq. yd	E. 1 by 5003
? Simulated road 1,500 sq. yds. C 35,	
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Netting - lump sum	14,105
Sprinklers - lump sum (ad large sat	<u> 3,500</u>
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Inspection and Supervision Engineering Overhead Continguacies	10,000 7,000 7,000 27,000

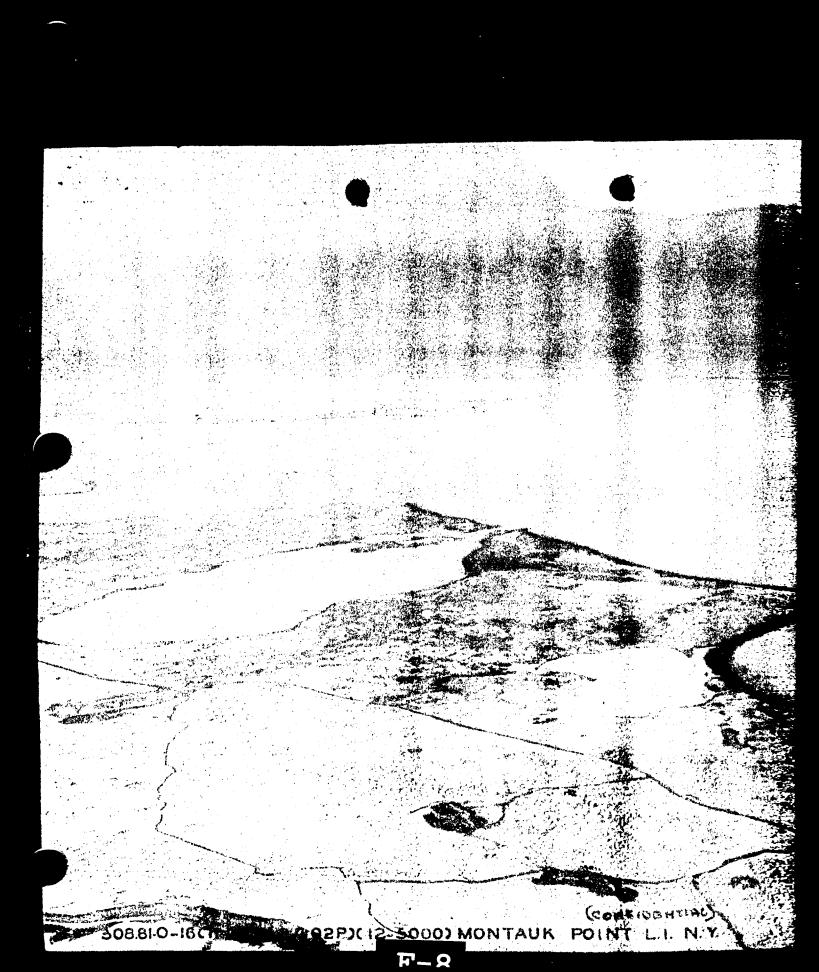
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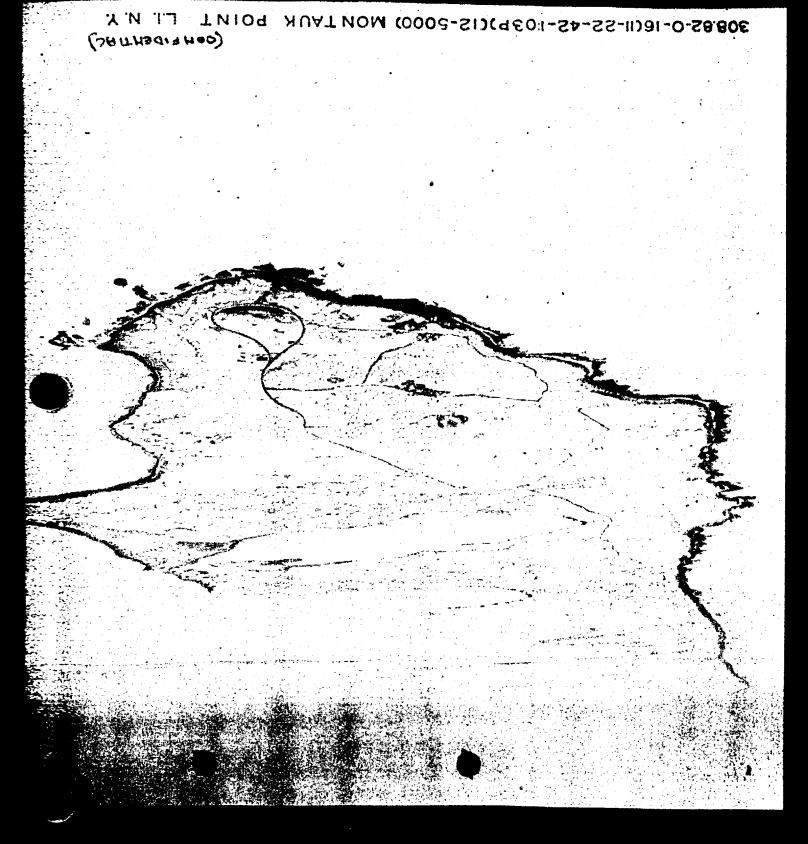
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Cal Cotter

SUBJECT: Antiaircraft Defense Project for Camp Hero.

AQ 660.2 (2 Sep 43)08-5-5 MD, AQD, 14 September 1943.

lat Ind.

KLB/mdd - 2B-939 Pentagon.

. To: Commanding General, Eastern Defense Command.

- 1. No fixed antisireraft armament is available or under procurement, nor scheduled for future production.
- 2. The antimireraft defense of the Fort Pond-Camp Hero area should be provided for by mobile or semi-mobile antimireraft units under the control of the Commanding General, Eastern Defense Command, in accordance with the priority and importance of the area as determined by you.

By order of the Secretary of War:

A. E. France Adjutant Constal.

INFORMATION COPY TO: (w/Cy basic letter)
| Director, Requirements Division, Army Service Forces (Attention: Seacoast Defense Projects Branch).

F-9

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660,2/13-A-

(NOTE.-DA General Orders 55, 1949, is the last of the series for 1949.)

General Orders) No. 1) DEPARTMENT OF THE ARMY
Washington 25, D. C., 3 Jan. 1950

- V. HARBOR DEFENSES.-1. Effective as of 1 January 1950, the following harbor defenses were discontinued:
- 2. Effective as of 31 December 1949, Fort H. G. Wright, Fishers Island, New York, and Camp Hero, Montauk Point, Long Island, New York, a subinstallation of Fort H. G. Wright, are excess to the needs of the Department of the Army.

BY ORDER OF THE SECRETARY OF THE ARMY:

OFFICIAL:

EDWARD F. WITSELL Major General, USA The Adjutant General J. LAWTON COLLINS Chief of Staff, U. S. Army (Note: DA General Orders 61 is the last of the series for 1957)

GO 1

GENERAL ORDERS)

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., 3 January 1958

No. 1

1. GENERAL COURTS-MARTIAL. The Commanding Officer, Seventh United States Army Support Command, Kefertal, Germany, is designated by the Secretary of the Army, pursuant to the Uniform Code of Military Justice, Article 22 (a) (6), to convene general courts-martial, effective 6 January 1958.
[AG 250.401 (3 Jan 58)]

II..KANSAS CITY CHEMICAL PLANT, MISSOURI. Effective 15 December 1957, the Kansas City Chemical Plant, Missouri, a Class II industrial activity, under the jurisdiction of the Chief Chemical Officer, located at the Kansas City Records Center, Missouri, a class II installation under the jurisdiction of The Adjutant General, is discontinued. The facilities formerly comprising the Kansas City Chemical Plant are consolidated with and made a part of the Kansas City Records Center, Missouri.

[AG 323.3 (12 Dec 57)]

III. CAMP HERO, NEW YORK. Effective 31 December 1957, Camp Hero, New York, a class I subinstallation of Fort Totten, New York, is placed in an inactive status.

[AG 323.3 (30 Dec 57)]

IV...SIGNAL CORPS PACKAGING STANDARDS OFFICE. Section II, DA General Orders 41, 1956, is rescinded.

[AG 323.3 (12 Dec 57)]

By Order of Wilber M. Brucker, Secretary of the Army:

MAXWELL D. TAYLOR, General, United States Army, Ohief of Staff.

Official:

HERBERT M. JONES,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army: A.

To be distributed on a need-to-know basis to all units and headquarters down to and including companies and batteries and to units and headquarters of comparable size and responsibility.

NG and USAR: B.

To be distributed on a need-to-know basis to all units and headquarters down to and including separate battalions (administrative) and to units and headquarters of comparable size and responsibility.

TAGO 8691B-Jan. 440483°-58

W. S. GOVERNMENT PRINTING OFFICE: 1888

INSTALLATION OR ACTIVITY	LOCATION	CLASSIFICATION	ASSIGNMENT	T/D	STUS
	•				
	Long Island, NY				
	FOST OFFICE ADDRESS 6 mi east of Montauk, Long Island, NY on US Hwy No. 27				
Cp Hero		I subinstal	l First Army		INACTIVE

HISTORICAL DATA

Seacost Defense Reservation in the vicinity of Montauk Point, Long Island, NY is DESIGNATED Cp Hero in honor of the late MAJOR GENERAL ANDREW HERO, JR, US Army - AG 680.9 (18 Apr 42)MR-M-SP, 2 May 1942. Also see - GO 58, WD, 29 Oct 1942.

Cp Hero, Montauk, Long Island, NY previously classified as a Special installation, ASSIGNED to Eastern Defense Command is RECLASSIFIED as a Class I installation, ASSIGNED to First Army effective 12 Jun 1946 - WD Cir 169, 11 Jun 1946.

RESCINDED; Cp Hero, Montauk, Long Island, NY (Sub-post of Ft H. G. Wright, NY) is RECLASSIFIED as a Class I sub-installation ASSIGNED to First Army - WD Cir 292, 25 Sep 1946.

Cp Hero (HD of L.I. Sound, NY) is placed in an INACTIVE STATUS effective 31 Jul 1947 - Cir 23, DA, 16 Oct 1947.

Ft H. G. Wright, NY a Class I installation, ASSIGNED to First Army will be placed in an INACTIVE STATUS; Cp Hero, NY a Class I subinstallation of Ft H.G. Wright, NY, will remain in an INACTIVE STATUS effective 31 May 1949 - Cir 72, DA, 10 May 1949.

Harbor Defense of Long Island Sound, NY will be DISCONTINUED; Cp Hero, NY will remain as a subinstallation of Ft H.G.

Wright, NY, ASSIGNED to First Army effective 31 May 1949 - 60 23, DA, 24 May 1949.

Cp Hero, Montank Point, Long Island, NY formerly Harbor Defenses of Long Island is excess to the needs of the Department of Defense, with the exception of that portion which the Department of the Air Force has expressed an interest in acquiring effective 31 Dec 1949 - AGAO-I 602 (27 Dec 49) CSGLD-N, 30 Dec 1949.

Op Hero, Montauk Point, Long Island, NY a subinstallation of Ft H. G. Wright is excess to the needs of the Department

of the Army effective 31 Dec 1949 - GO 1, DA, 3 Jan 1950.

Cp Hero, NY is DESIGNATED a Class I subinstallation of Ft Totten, NY effective 24 Jan 1951 - GO 20, First Army, 13 Feb 1951. REVOKED - GO 66, First Army, 14 May 1951.

Cp Hero, NY is ESTABLISHED as a Class I subinstallation of Ft Totten, NY effective 24 Jan 1951 - GO 20, DA, 18 Apr 1951 Cp Hero, NY a flass I subinstallation of Ft Totten, NY is placed in an INACTIVE STATUS effective 31 Dec 1957 - GO 1, DA, 3 Jan 1958.

US Army Garrison Cp Hero, Montauk, Long Island, NY is REDESIGNATED US Army Garrison (Inactive), Cp Hero, Montauk,

Long Island, NY under TD 61-1262-5, 1957 effective 31 Dec 1957 - GO 9, First US Army, 28 Jan 1958.

US Army Garrison (Inactive) Co Hero, Montauk, Long Island, NY is DISCONTINUED, TD 61-1362-5 is WITHDRAWN effective 1 Jan 1961 - GO 35, First US Army, 13 Feb 1961.

띡

US NAVAL INSTITUTE PROCEEDINGS JANUARY, 1968

American Harbor Defenses: The Final Era

The first half of the 20th century saw the maturation, zenith, and subsequent demise of America's network of harbor defense fortifications, a system that had endured without interruption for nearly 150 years.

Here, a 12-inch gun near San Francisco is fired during a 1940 exercise, on the eve of the enactment of a final program that would replace existing installations with the most powerful and extensive such defenses in U. S. history.

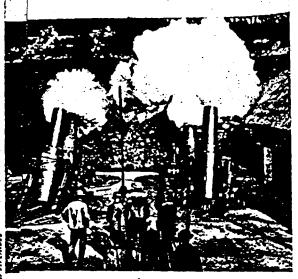
by Commander D. P. Kirchner, U. S. Navy, and Captain E. R. Lewis, U. S. Army Reserve

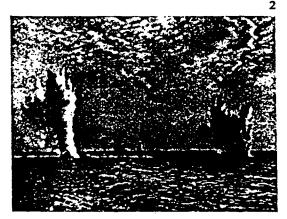


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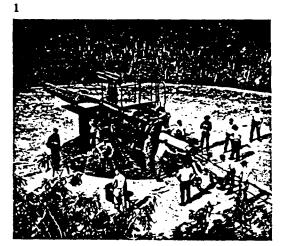
F-13



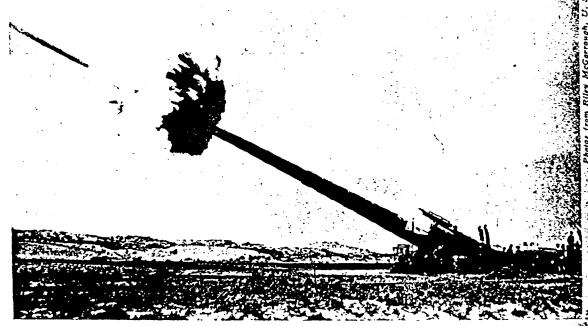




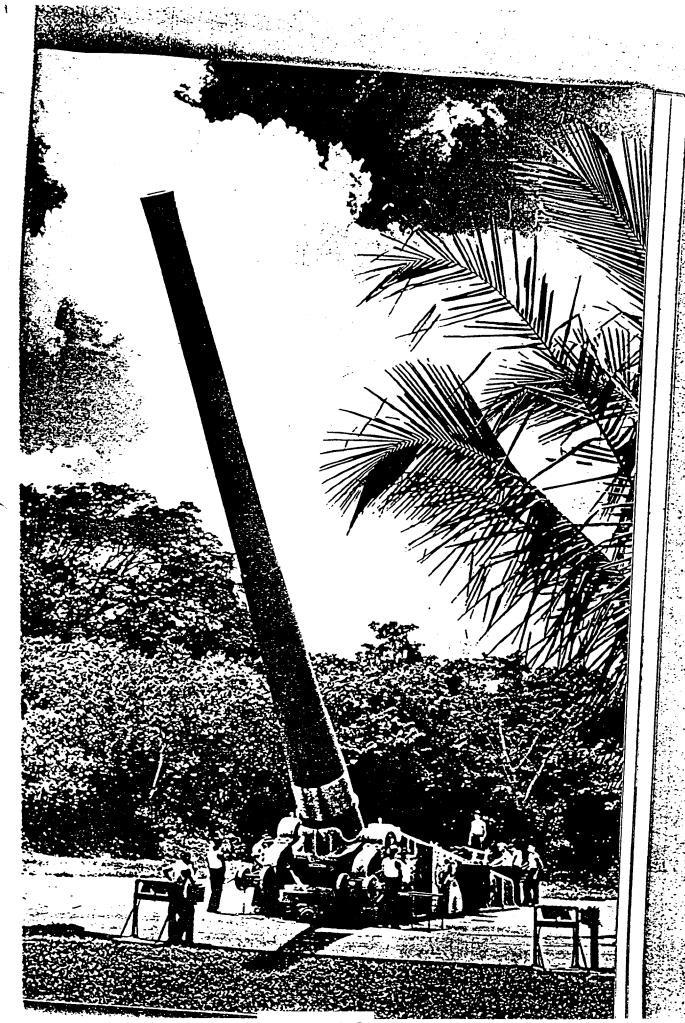
As late as the collapse of France in 1940, most of the nearly 700 fixed guns in the American harbor defense system were weapons that had been installed prior to 1910. Included were about 250 12-inch mortars, emplaced in groups to fire clusters of 700-pound projectiles in high arcs onto the decks of enemy ships. Photo 1 shows such a battery at Fort Monroe, Virginia, during firing practice in 1918. In Photo 2, mortar rounds straddle a towed target sled. The stubby pieces had a maximum range of about 15,000 yards. Other major-caliber weapons included 8-, 10-, 12-, and 14-inch flat-trajectory guns, most of which were mounted on disappearing carriages that used recoil energy to lower the tubes behind earth and concrete parapets for servicing and loading. In Photos 3 and 4, a 600-pound shell is loaded and fired from a 10-inch disappearing gun at Fort Monroe. In the days before high-angle shipboard gunnery, such armament was almost invulnerable to naval weapons except for a few moments just prior to firing. Range of the 8-, 10-, and 12-inch guns was about eight to nine miles; the 14-inch guns could reach 13 miles.







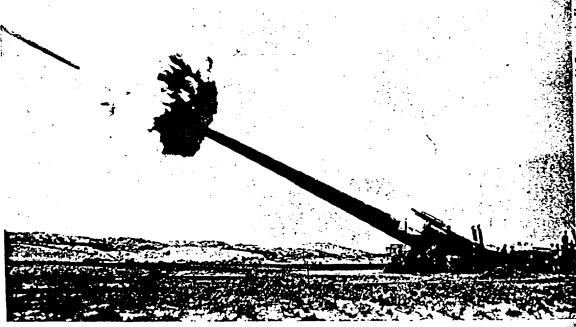
During and immediately following World War I, artillery coverage of the most vital harbor defense areas was extended through the addition of a small number of 12-inch guns on new high-angle carriages that increased their range to more than 15 miles. Although effective, these guns were highly vulnerable to air attack as may be seen in Photo 1, showing an installation on Corregidor. A few batteries of a new 16-inch weapon, the Army Model 1919, provided the harbor defenses with the most powerful service cannon ever produced in the United States. Seen in Photo 2, this gun had a range of nearly 50,000 yards with a 2,340-pound projectile. The cancellation of a dozen capital ships under the Washington Naval Treaty of 1922, however, rendered surplus a large number of new Mark II Navy guns, and these were made available for use in all subsequent 16-inch installations. One of four such guns mounted at the Pacific entrance to the Panama Canal is seen in Photo 3. Also added were several models of railway artillery, the largest being a 14-inch gun having a range of over 42,000 yards with a 1,560-pound projectile. One of two used in the Canal Zone is seen in Photo 4.



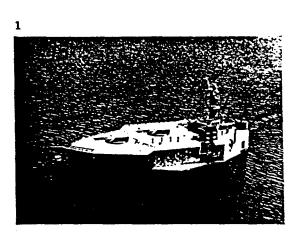
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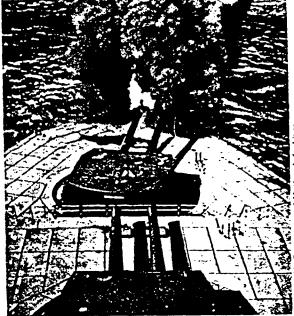


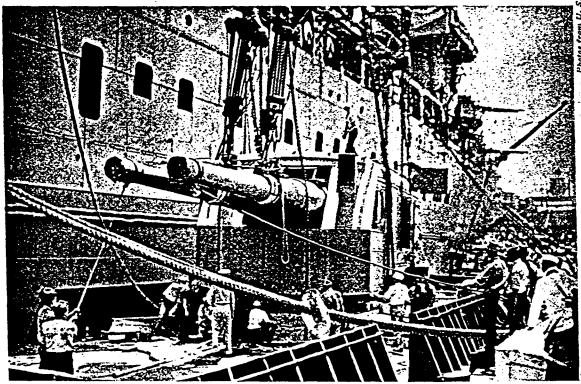




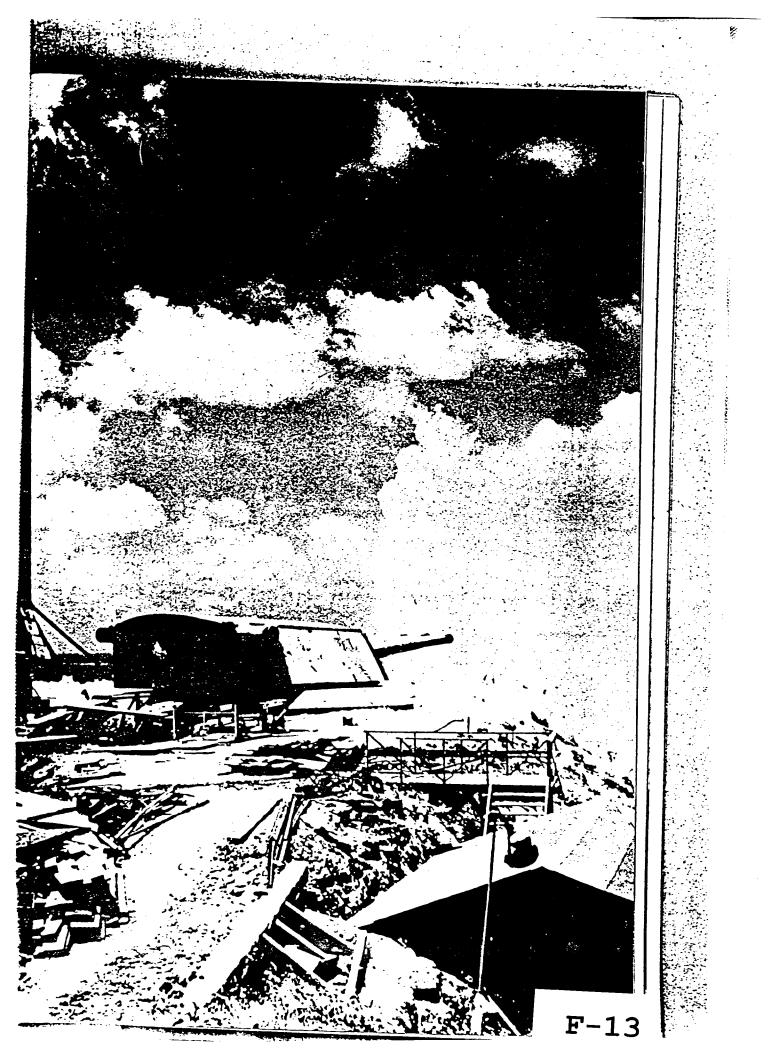
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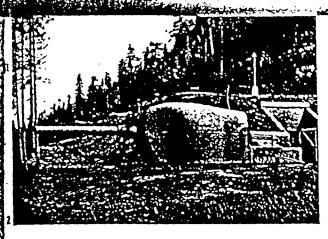


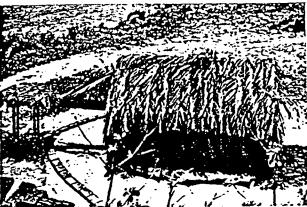




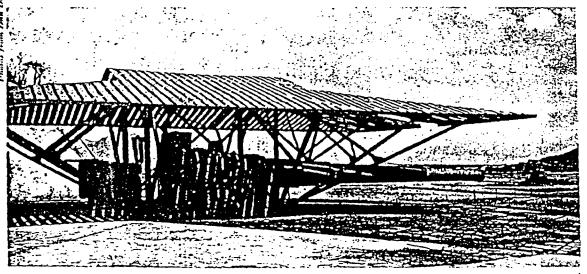
Prior to World War II, the United States had only once constructed a turreted harbor defense installation. Fort Drum, seen in Photos 1 and 2, was completed at the mouth of Manila Bay shortly after World War I and became known as the "concrete battleship" because of its distinctive shape and main armament of Army-designed 14-inch guns and turrets. The fort was the only unit of the Manila Bay defenses to remain intact throughout the long Japanese siege that ended with Corregidor's surrender in May 1942. In the early part of World War II, because of their immediate availability, several Navy gun turrets were adapted for harbor defense on Oahu, Hawaii. Eight 8-inch, twin-gun turrets from the carriers USS Lexington (CV-2) and USS Saratoga (CV-3) were installed at crucial points on the island, as were two 14-inch, triple-gun turrets salvaged from the battleship USS Arizona (BB-39). In Photo 3, one of the Lexington's turrets is removed at Pearl Harbor for transfer to the Army in March 1942. In Photo 4, Battery Pennsylvania, one of the turrets from the Arizona, is proof-fired in August 1945.







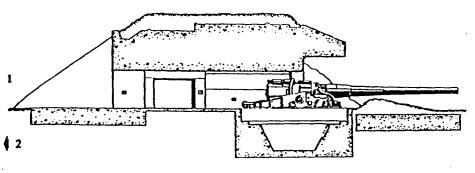


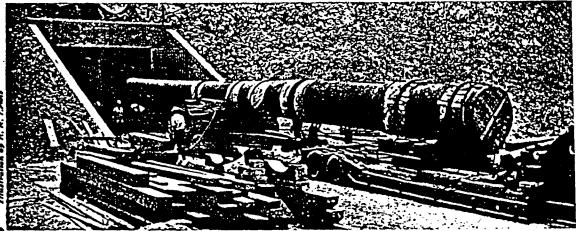


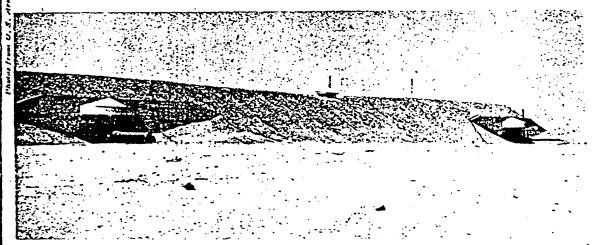
The vast harbor defense program initiated in 1940 provided for replacement of practically all existing pre-World War I heavy armament by far more powerful weapons having overhead protection. There were 125 new batteries to be constructed, each with a pair of 6-inch or 16-inch guns, most of them in the continental United States. Magazine, service, and power rooms were located between the guns and covered with several feet of reinforced concrete and earth. Protection for the 6-inch guns, which had a maximum range of 27,000 yards, consisted of heavy cast steel shields. In Photo 1, a newly emplaced 6-inch gun near San Francisco is proof-fired. Photo 2 shows a gun and magazine entrance in the Pacific Northwest. An identical gun, near San Juan, Puerto Rico, is seen under Caribbean camouflage in Photo 3. A small number of new two-gun, 8-inch and 12-inch installations were also included in the program. In Photo 4, an 8-inch gun, once part of the armament of the USS Minnesota (BB-22), overlooks Kaneohe Bay, Oahu, from under Hawaiian-type camouflage. Many old 5-, 6-, and 7-inch Navy deck guns, such as that in Photo 5, were also supplied for emergency use early in the war.



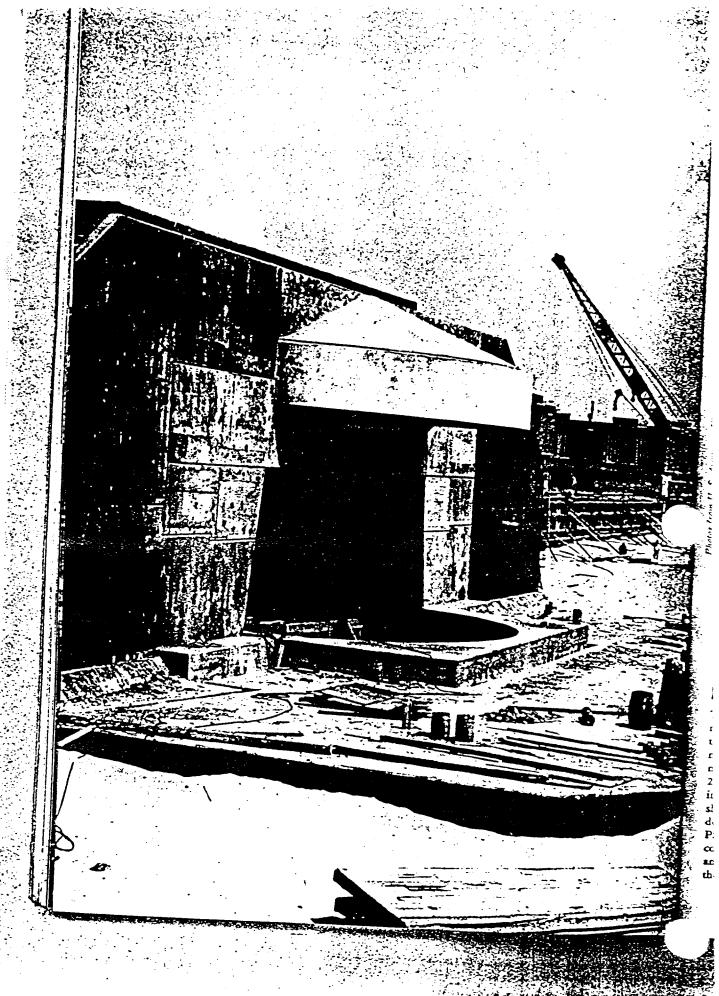
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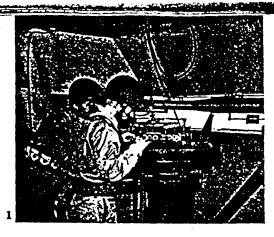


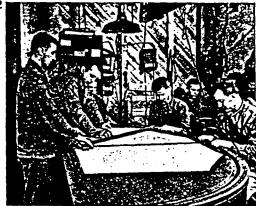


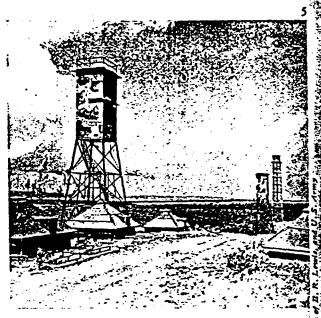
The 1940 harbor defense program included plans for construction of over three dozen new batteries of Mark II 16-inch guns, as well as for retention and modernization of the few 12-inch and 16-inch installations of the post-World War I period. In all of these major-caliber works the massive cover over the magazines extended out over the armament itself. Each gun was thus situated within its own casemate, a chamber covered by 20 to 25 feet of concrete, steel, and earth. A cross section of a representative 16-inch installation, less the structural and reinforcing steel, is seen in Illustration 1. Photo 2 shows a partially completed casemate at Fort Story, Virginia, with its projecting canopy designed to protect gun and carriage from a direct hit. A 143-ton, 16-inch tube, seen in Photo 3, is readied for installation through the rear of the casemate. Photo 4 shows a completed battery with the two guns separated by 500 feet of magazines, passageways, and earth cover. The 45,000-yard, 16-inch batteries could outrange nearly any ship in the world and greatly reduced the number of guns required for coverage of a given area.

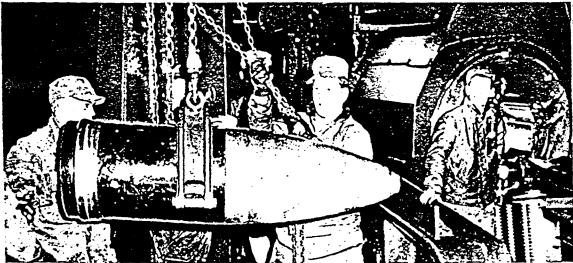


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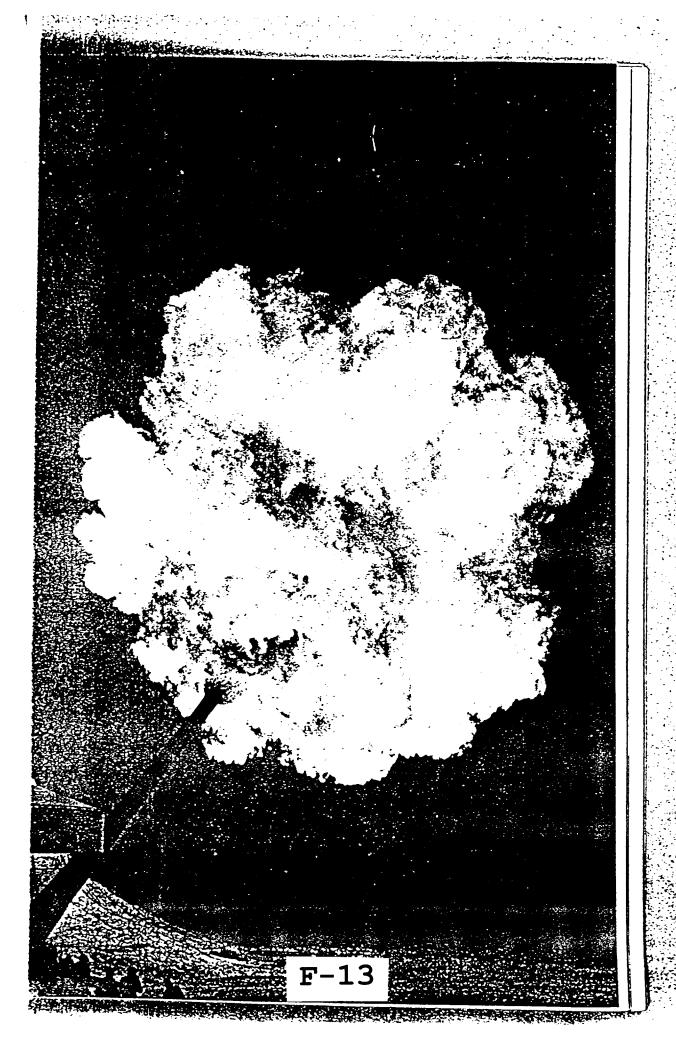








Every long-range-gun installation was served by a network of up to a dozen fire-control observation stations situated along the coast for miles in either direction from the bartery. Each station generally contained two optical instruments, one for obtaining target angles for transmittal to a central battery plotting room, and one for observing the fall of shot and obtaining correction data. Typical observation and plotting facilities are shown in Photos 1 and 2. In Photo 3, a 16-inch projectile is transported to its gun via ceiling trolley, and in Photo 4 a 16-inch gun at Fort Story, Virginia, is fired during night practice. As the war progressed, an early form of fire-control radar was introduced, and by 1945 most batteries could be directed by either radar or optical means. Fire-control facilities visible in Photo 5 include two observing stations and (disguised as a water tower) a seacoast artillery radar. Within three years after the war's end, however, both systems were obsolete, as was the harbor defense artillery itself. The era of missiles and sophisticated fire direction had begun.





Into limbo: their usefulness ended, harbor defense guns are cut up for scrap at Fort De Russy, Oahu, in 1948.

THE WORLD WAR II HARBOR DEFENSE ARMAMENT PROGRAM

The following is a brief summary of World War II American harbor defense installations, as projected in the major program initiated in 1940:

Characteristics of Program Armament ¹	16-inch	12-inch	8-inch	6-inch
Range in yards Projectile weight in pounds	45,000 2,240	30,000 975	35,000 240	27,000 105
Number of Batteries in Program				
New batteries projected Retained batteries to be modernized (i.e., given overhead cover) Totals	38 6 44	3 11 14	11 0 11	87 0 87
Breakdown of Batteries by General Location				
Continental United States ² Pacific Bases ³ Atlantic Bases ⁴	35 4 5	8 1 5	2 7 2	51 14 22

¹ The 12-inch and 6-inch guns and all four types of carriages were of Army design and manufacture. The 16-inch guns were almost entirely from stock made available on cancellation of battleships Nos. 49-54 and battlecruisers Nos. 1-6. The 8-inch guns were from stock removed from the battleships USS New Jersey (BB-16), USS Kansas (BB-21), USS Minnesota (BB-22), and USS New Hampshire (BB-25), in 1924.

Because of a series of cutbacks in harbor defense construction as the course of World War II gradually reduced the threat to American shores, the number of batteries actually completed was considerably smaller than that projected for the program. Final completion of program armament ranged from a low of about 50 per cent of the 16-inch batteries to a high of about 90 per cent of the 12-inch batteries. Also, wartime installation of readily available substitute armament, including turrets from the USS Lexington (CV-2), USS Saratoga (CV-3) and USS Arizona (BB-39) resulted in figures other than those originally projected.

² Eighteen locations: Portland, Maine; Portsmouth, New Hampshire; Boston; New Bedford; Narragansett Bay; Long Island Sound; New York City; Delaware River; Chesapeake Bay; Charleston; Key West; Pensacola; Galveston; San Diego; Los Angeles; San Francisco; Columbia River; and Puget Sound.

² Nine locations: Balboa, Canal Zone; Dutch Harbor, Kodiak, Sitka, and Seward, Alaska; Pearl Harbor, Honolulu, Kaneohe Bay, and the North Coast of Oahu, Hawaii.

⁴ Seven locations: Cristobal, Canal Zone; San Juan and Roosevelt Roads, Puerto Rico; Trinidad; Jamaica; Bermuda; and Argentia, Newfoundland.

17 D Street, S.E. Washington, D.C. 20003 22 November 1968

Patrick F. Bowe 1405 S. College Fort Collins, Colorado 80521

Dear Mr. Bowet

This is in reply to your October 29 letter to the Department of the Ammy, concerning coastal defenses in the vicinity of Montauk Point, New York

Camp Hero was a World War II facility, part of the Harbor Defenses of Long Island Sound. It comprised about 480 acres acquired for the most part in 1942, and it was named in honor of Major General Andrew Hero, a Chief of Coast Artillery during the 1920's.

Three batteries of gums were installed on the reservation between 1942 and 1944. Their locations are shown in the attached plan. The easternmost battery, known as Battery 216, consisted of a pair of 6-inch gums with a range of about 27,000 yards. The two 16-inch gun batteries, of two guns each, were named, respectively, Battery Dunn and Battery 112. Their guns had a range of about 45,000 yards and were emplaced within casemates, more commonly known today as "bunkers." Each battery's casemates were five hundred feet apart, and between the casemates stretched a series of concrete and earth covered galleries containing power-generating rooms, ammunition magazines, latrines, air-conditioning equipment, etc.

All seacoast batteries were stripped of their armament during the period 1947 - 1949, but the concrete emplacements may still be seen near every coastal harbor of consequence in the United States. Casemates of 16-inch batteries essentially identical with those of Batteries Dunn and 112 can be found in several locations between Portland, Maine, and the entrance to Chesapeake Bay, and between San Diego and Puget Sound. Remnants of the 6-inch batteries, which were much more common, may be seen as well along the southern Atlantic and Gulf Coasts.

Both types of hatteries, along with the guns used, are illustrated in the pictorial section of the January, 1968, issue of the U.S. Naval Institute Proceedings, available in most libraries. Also shown is a cross section of a 16-inch casemate.

The manning details for such batteries varied somewhat, but ordinarily consisted of about 160 men per 16-inch battery and about 100 per 6-inch.

Very truly yours,

B. R. Lewis

1 incl.

F-14

X Camp Hero

Gb 2

CAMP HERO

Seacoast Defense Reservation in the vicinity of Montauk, L. I., New York is designated Camp Hero, in honor of Haj. Gen. Andrew, Jr., USA., by Ltr d. May 2, 1942; GO 58, WD, October 29, 1942. Hero,

Effective 31 July 1947, Camp Hero (Harbor Defenses of Long Island, New York) is placed in an inactive status, in accordance with provisions of Circular #2, WD, 1947, by Circular #23, DA, October 16, 1947.

Effective 31 May 1949, Fort H. G. Wright, a Class I installation under the jurisdiction of the Commanding General, First Army, will be placed in an inactive status. Camp Hero, N. Y., a Class I sub-installation will remain in an inactive status. Circular #72, DA, 10 May 1949.

Effective 31 December 1949, Camp Hero, Long Island, New York (Harbor Defenses of Long Island Sound, New York) is excess to the needs of the Department of Defense, with the exception of that portion which the Department of the Air Force has expressed an interest in acquiring. Ltr. 30 Dec 1949, AG-AO-I-602 (27 Dec 49) CS-GID-M, dated 30 Dec 49.

Effective 31 December 1949, Camp Hero, a sub-installation of Fort H. G. Wright, is excess to the needs of the Department of the Army. GO #1, DA, 3 Jan 1950.

Effective 24 January 1951, Camp Hero, New York, is established as a Class I sub-installation of Fort Totten, New York. GO #20, DA, 18 Apr 1951.

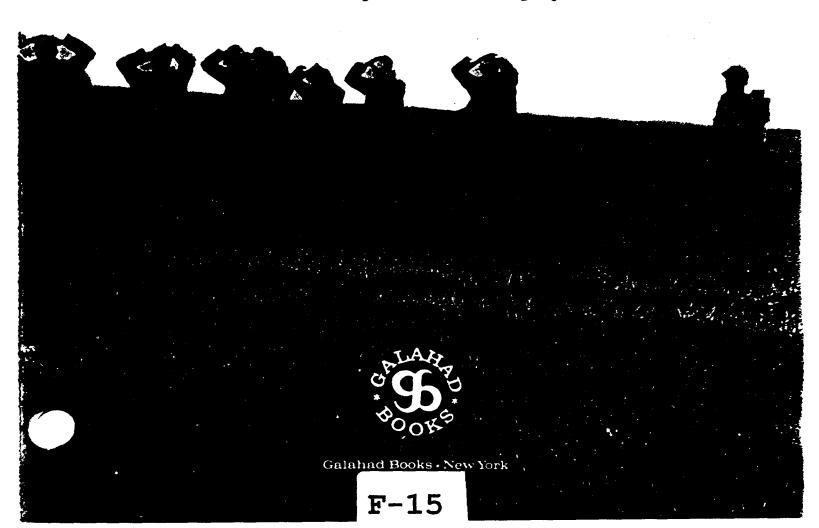
Source: Organization and Directory Section Operations Branch Office of The Adjutant General

26 December 1957

C-95-28

Shelby L. Stanton
Captain, U.S. Army, Retired
Author of <u>Vietnam Order of Battle</u>

Foreword by Russell Weigley





7th Coast Artillery Regiment (Harbor Defense) (Type B)

Stationed at Ft Hancock N.J. under Harbor Defenses of Sandy Hook; moved to Ft Tilden N.Y. 23 Sep 42 and returned to Ft Hancock 20 May 43; there regimental assets absorbed into New York Harbor Defenses and HHB assigned to XXII Corps 23 Feb 44; HHB transferred to Ft Leonard Wood Mo 15 Mar 44 where inactivated 7 Apr 44.



8th Coast Artillery Regiment (Harbor Defense) (Type B)

Stationed at Ft Preble Maine under Harbor Defenses of Portland; 1st and 2nd Bns not completely formed until Feb 41 and Battery G (Searchlight) activated Jun 41; regimental assets absorbed into Portland Harbor Defenses and HHB assigned to IX Corps 25 Feb 44; HHB transferred to Cp Shelby Miss 27 Mar 44 where inactivated 18 Apr 44.



9th Coast Artillery Regiment (Harbor Defense) (Type A)

Stationed at Ft Banks Mass under Harbor Defenses of Boston; 1st and 2nd Bns activated 10 Feb 41 and 3rd Bn activated 1 Jun 41; regimental assets absorbed into Boston Harbor Defenses and HHB assigned to XXIII Corps 23 Feb 44; HHB transferred to Cp Hood Tex 17 Mar 44 where inactivated 12 Apr 44.



10th Coast Artillery Regiment (Harbor Defense) (Type B)

1 Jan 40 activated at Ft Adams R.I. under Harbor Defenses of Narragansett Bay; 1st and 2nd Bns activated 10 Apr 41; regimental assets absorbed into Narragansett Bay Harbor Defenses and HHB assigned to XXII Corps 25 Feb 44; HHB transferred to Cp Forrest Tenn 14 Mar 44 where inactivated 10 Apr 44.



11th Coast Artillery Regiment (Harbor Defense) (Type B)

Stationed at Ft H.G. Wright N.Y. under Harbor Defenses of Long Island Sound; moved to Winthrop N.Y. 3 Aug 40 and returned to Ft H.G. Wright 31 Aug 40; there regimental assets absorbed into Long Island Sound Harbor Defenses and HHB assigned to XXII Corps 23 Feb 44; HHB transferred to Ft Leonard Wood MO 14 Mar 44 where inactivated 7 Apr 44.



13th Coast Artillery Regiment (Harbor Defense) (Type A)

Stationed at Ft Barrancas Fla under Harbor Defenses of Key West; 2nd Bn activated 1 Aug 40 at Ft Moultrie S.C. and joined regiment at Ft Barrancas 24 Apr 42 from duty with Harbor Defenses of Charleston; 3rd Bn inactivated 17 Jan 42; relocated to Ft Pickens Fla where HHB redesignated Harbor Defense of Pensacola 31 Aug 44; 1st and 2nd Bns redesignated 181st and 13th CA Battalions, respectively. The 3rd Bn had departed Charleston P/E 27 Jan 42 and became the 276th CA Bn at Bora Bora 17 Dec 42.



240th Coast Artillery Regiment (Harbor Defense) (Type A) Maine National Guard

16 Sep 40 inducted into federal service at Portland Maine and moved to Ft McKinley Maine 23 Sep 40 under the Harbor Defenses of Portland; transferred to Ft Williams Maine 2 Jan 42 and to Ft Levett Maine 5 Oct 44; there regiment (less HHB 3rd Bn and Btry I which had been inactivated 18 Apr 44) redesignated as 185th CA and 186th CA Battalions.



241st Coast Artillery Regiment (Harbor Defense) (Type C) Mass. National Guard

16 Sep 40 inducted into federal service at Boston Mass and moved to Ft Andrews Mass 23 Sep 40 under the Harbor Defenses of Boston; transferred to Ft Dawes Mass 12 Dec 41 and Ft Heath Mass in Nov 43; arrived at Ft Banks Mass in Mar 44 where regimental HHB, 3rd Bn HHB and Btry L inactivated 7 Oct 44; remainder of regiment redesignated 187th CA and 241st CA Battalions, less 4th Bn which had been designated 3rd Bn, 8th CA Regt.



242nd Coast Artillery Regiment (Harbor Defense) (Type A) Connecticut National Guard

16 Sep 40 inducted into federal service at Bridgeport Conn and moved to Ft H.G. Wright N.Y. 23 Sep 40 and to Ft Terry N.Y. 7 Nov 40 under the Harbor Defenses of Long Island Sound; 3rd Bn redesignated 2nd Bn, 23rd CA Regt 13 Sep 43; remainder of regiment redesignated there as 190th CA and 242nd CA Battalions 7 Oct 44, less 2nd Bn HHB which was inactivated.



243rd Coast Artillery Regiment (Harbor Defense) (Type A)

R.I. National Guard

16 Sep 40 inducted into federal service at Providence R.I. and moved to Ft Adams R.I. 22 Sep 40 under the Harbor Defenses of Narragansett Bay; relocated to Ft Getty R.I. 14 Mar 41 where regiment redesignated 189th CA and 243rd CA Battalions 7 Oct 44, less HHB of 2nd and 3rd Bns and Btry D which were inactivated.



244th Coast Artillery Regiment (155mm Gun) (Mobile)

New York National Guard

16 Sep 40 inducted into federal service at New York N.Y. and moved to Cp Pendleton Va 23 Sep 40; served in Ft Jackson-Ft Bragg area from 29 Sep 41 until returned to Cp Pendleton 3 Dec 41; HHB and 1st Bn inactivated 17 May 44 and 2nd Bn redesignated 289th CA Battalion 5 Jun 44; 3rd Bn redesignated 259th CA Battalion 20 Jan 43 on New Caledonia.

Campaigns: Pacific Theater without inscription



245th Coast Artillery Regiment (Harbor Defense) (Type C) New York National Guard

16 Sep 40 inducted into federal service at Brooklyn N.Y. and moved to Ft Hancock N.Y. 24 Sep 40 under the Harbor Defenses of Sandy Hook; transferred to Bendix N.J. 31 Oct 41 and returned to Ft Hancock N.J. 6 Nov 41; transferred to Ft Wadsworth N.Y. 20 May 43 and returned again to Ft Hancock N.J. 1 Mar 44; HHB of 1st—4th Bns and Btrys L and M inactivated there 7 Oct 44 and remainder of regiment redesignated as 192nd CA and 245th CA Battalions.

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Harbor Defenses of Long Island Sound

Located at Long Island Sound N.Y. with HHB at Ft H.G. Wright N.Y. and initially guarded by the 11th Coast Artillery, reinforced in Sep 40 by the 242nd Coast Artillery; composed of Ft Michie (Great Gull Island N.Y.), Ft Terry (Plum Island N.Y.), Ft H.G. Wright (Fishers Island N.Y.), and other installations including Cp Hero (Montauk Point N.Y.).

Harbor Defenses of Los Angeles

Located at Los Angeles Calif with HHB at Ft MacArthur Calif and initially guarded by the 3rd Coast Artillery; composed of Ft MacArthur (San Pedro Calif), Bolsa Chica Seacoast Battery (Los Angeles Calif), Oxnard Seacoast Battery (Oxnard Calif), Manhattan Beach Subpost (Manhattan Beach Calif), Point Vicente Seacoast Defenses (Los Angeles Calif), and White Point Seacoast Battery (Los Angeles Calif).

Harbor Defenses of Manila and Subic Bays

Located on Luzon Philippine Islands with HHB at Ft Mills P.I. and initially guarded by the 59th and 60th Coast Artillery as well as the 91st and 92nd Coast Artillery (Philippine Scouts); composed of Ft Drum (El Fraile Island), Ft Frank (Carabao Island), Ft Hughes (Caballo Island), Ft Mills (Corregidor Island), and Ft Wint (Grande Island in Subic Bay); evacuated Ft Wint on 24 Dec 41 and other garrisons surrendered to Japanese forces on 6 May 42.

Campaigns: Philippine Islands



Harbor Defenses of Narragansett Bay

Located at the entrance of Rhode Island Sound with HHB at Ft Adams R.I. and initially guarded by the 10th Coast Artillery, reinforced in Sep 40 by the 243rd Coast Artillery; composed of Ft Adams (Newport R.I.), Ft Burnside (Jamestown R.I.), Ft Church (Little Compton R.I.), Ft Getty (Jamestown R.I.), Ft Greene (Narragansett R.I.), Ft Greble (Jamestown R.I.), Ft Kearney (Saunderstown R.I.), Ft Varnum (Narragansett R.I.), Ft Wetherill (Jamestown R.I.), Brenton Point Tactical Position (Newport R.I.), Cp Burlingame (Charlestown R.I.), and miscellaneous tactical positions.

Harbor Defenses of New Bedford

Located at New Bedford Mass and Buzzards Bay with HHB at Ft Rodman Mass and guarded by the 23rd Coast Artillery; composed of Ft Rodman (New Bedford Mass), Barney's Joy Outpost (South Dartmouth Mass), Butler's Point Gun Position (New Bedford Mass), and various minor installations.



Harbor Defenses of New York (Sandy Hook)

Located at New York City and vicinity and initially known as the Harbor Defenses of Sandy Hook with HHB at Ft Hancock N.J. guarded by the 7th and 52nd Coast Artillery, reinforced in Sep 40 by the 245th Coast Artillery; composed of Ft Hancock (Sandy Hook N.J.), Ft Jay (Governors Island N.Y.), Ft Schuyler (New York N.Y.), Ft Tilden (Brooklyn N.Y.), Ft Wadsworth (Richmond N.Y.), and other coastal defense sites.



Harbor Defenses of Pensacola

Located at Pensacola Fla with HHB at Ft Barrancas Fla and initially guarded by elements of the 13th Coast Artillery; composed of Ft Barrancas, Mt McRee, and Ft Pickens (all at Pensacola Fla).

Harbor Defenses of Portland

Located at Portland Maine guarding Casco Bay with HHB at Ft Williams Maine and initially guarded by the 8th Coast Artillery, reinforced in Sep 40 by the 240th Coast Artillery; composed of Ft Levett (Cushing Island Maine), Ft Lyons (Cow Island Maine), Ft McKinley (Great Diamond Island Maine), Ft Preble (South Portland Maine), Ft Williams (Cape Elizabeth Maine), and battery sites on Jewell's Island, Long Island, and Peaks Island.

had the right of way bulldozed. The Caterpillar tractor's blade cut through the sand to ground water, and a marvelous bog, thirty feet wide and a mile or more long, was created. Upon reflection, it seems to me that Superintendent Roy Lester may have known exactly what he was doing—building the perfect public cranberry bog.

No matter. The bog is there, just north of the railroad tracks, over which a train sways now and again to and from Montauk, at speeds and over terrain reminiscent of the guerrilla scenes in the film version of Lawrence's adventures in Arabia. Indeed, Westerns were made along these tracks, back in the days before the moviemakers abandoned Long Island City for Hollywood, and Valentino played "The Sheik" among the dunes of Napeague in the late summer of 1922.

East of the ITT radio towers-from them are transmitted Morse messages to ships at sea: "Come home, all is forgiven"; "Disregard my 1121Zulu. Proceed Persian Gulf"; one of the towers, a replacement after the 1954 hurricane, used to stand at Pearl Harbor, where it witnessed the events of December 7, 1941-a spur was built from the railroad tracks south across the highway during World War II. One day a sixteen-inch railway gun rolled down it to a position behind the dunes. I do not know if this behemoth was ever fired. If it was, I doubt if any - record exists, at least locally. The similar weapons at Fort Hero near Montauk Point were fired several times in wartime drills, and the event lives in Montauk memory. The concussion rattled windows many miles away. The big guns might have been used but were not, for the Navy had the situation well in hand on the last day of the war in Europe, when an apparently lunatic U-boat captain torpedoed a large coal barge between Block Island and Watch Hill, Rhode Island, more or less behind the battery at Montauk but within range. He died for his sins and his

fanaticism, as did all his crew, beneath an hours-long barrage of depth charges.

Such matters, while generally discussed despite warnings about Loose Lips, were not to be written about then. Nor was another feature of eastern Long Island life during the early 1940s—the parade of five-cubic-yard Colonial Sand and Gravel trucks that rumbled, day and night, trunk to tail like the elephants of Hannibal's army, toward Fort Hero. They came heavily laden from some quarry far to the west, thundering past every two or three minutes. Through East Hampton and Amagansett they roared, the pounding of their wheels cracking chimneys and gradually crumbling the yellowish concrete with which Route 27 was surfaced in those days. Across Napeague Beach they trundled, bearing sand like coals to Newcastle over a landscape all sand to another landscape equally sandy, sand to be made into concrete and poured into hollows dug in the sand of Montauk Point, concrete for great-gun emplacements.

No doubt the specifications were drawn in such a way as to exclude the lesser sands of Montauk and Napeague. We wondered, and we gossiped, but when the war was finally over and such questions could be raised in print, people were too tired, or too pleased that the war had ended, to bother. The big guns were cut up with acetylene torches, the sole victim of their deadliness an unfortunate workman who sliced with his torch into a portion of recoil mechanism still under pressure, but the tunneled concrete emplacements remain. The last I knew they were Montauk's official fallout shelters, stocked with dry biscuits and canned water against Armageddon.

The Napeague Beach sand which was not good enough for the Army is quartz sand, flecked with tiny pebbles of tan or gray feldspar, red garnet grains, and streaks of iron sand—magnetite. Our children, when younger, liked to drag a dime-store magnet

June 1997



Searching the Skies

The Legacy of the United States Cold War Defense Radar Program

United States Air Force Air Combat Command

Global Power for America

New York

L-10/LP-45/Z-45 — Camp Hero/Montauk (A-1, A-3, A-5, A-9/GCI)

An AN/TPS-1B long-range search radar was activated at this site in June 1948. This site fed into a primitive control center established at Roslyn. This site was incorporated into the Lashup and subsequent permanent network with the 773rd AC&W Squadron overseeing the facility. In 1951 AN/CPS-5 and AN/TPS-10A height-finder radars were placed on the site. A year later AN/FPS-3 and AN/FPS-5 radars were operating. Between 1955 and 1956 an AN/FPS-8/GPS-3 made an appearance at the tip of the Long Island site. In the spring of 1957 this site received one of the first AN/FPS-20 units along with a pair of AN/FPS-6 height-finder radars. During 1958 Montauk began SAGE operations. In December 1960 the first of the specific frequency diversity radars, an AN/FPS-35, became operational at Montauk. This powerful radar caused radio interference problems in the vicinity. These problems caused this radar to be taken out of service in 1961. With the problems resolved, the radar was operational again in 1962 and by 1963 an AN/FPS-26 had replaced one of the AN/FPS-6 height-finder radars. In 1963 the site also had become an FAA/ADC joint-use facility. Around 1965 the site was removed from joint-use status. Montauk came under TAC jurisdiction in 1979. The facility was decommissioned in the early 1980s. A site at Riverhead (Z-315/J-52) assumed coverage.

L-6 — Pine Camp (A-1)

Pine Camp became operational using an AN/CPS-5 radar in June 1950. In 1951 an AN/TPS-10A radar became operational. In June 1952 coverage was assumed by site P-49 at Watertown.

L-7 — Schenectady (A-1)

This Lashup site was activated in 1950. The site used both the AN/CPS-5 and AN/TPS-10A radars. Operations continued until February 1952 when coverage was assumed by site P-50 at Schuylerville.

L-8 — Seneca (A-1)

This Lashup site at the Ordnance Depot used AN/CPS-5 and AN/TPS-10A radars. Operations lasted from June 1950 until coverage was assumed by site P-14 at Bellevue Hill, Vermont, in September 1951.



U.S. Army Corps of Jineers WASHINGTON, D.C. 70314-1000

REPLY TO ATTENTION OF:

CEMP-RF (200-1a)----

1 5 MAR 1994

MEMORANDUM FOR COMMANDERS, MAJOR SUBURDINATE COMMANDS (EXCEPT CETAD)

SUBJECT: Prince Environmental Restoration Program (DERP) - Site Eligibility Policy Clarification for Ordnance and Explosive Waste (OEW) at I and Defense Site (FUDs)

- 1. Huntsville Divition and others have raised policy insues regarding Ligibilit, of ordnance mediation at sites where ordnance resulted from acts of war, or live fire training exercises or disprol on property ich was never owned but was clearly used by DoD.
- 2. Accordingly, the following clarification was developed and is authorized for implementation:
- a. As current policy on DERP-FUDS site eligibility states:
 "Sites which were used for the disposal of DoD materials or
 wastes where the installation or at. Aty responsible fit. The
 materials or waste is inactive may be considered eligible."
 However, only "sites within the fift states, districts,
 territories, commonwealths, and post ssions over which: United
 States has jurisdiction are eligible for the FUDS program."
- b. Sites meeting the above criteria, even though never owned, but obviously used by DoD either for ordnance firing or disposal, are eligible sites and will be added to the DELL-FUDS inventory is discovered. (Note: "off-shore" ordnance sites, beyond 100 yards of mean high tide, will not be added to the inventory database except in special cases where a public exposure pithway exists.)
- c. At an eligible site, cleanup of foreign ordnance may be proposed as an eligible project.
- d. Sites contaminated by acts of war are not authorized for DoD remediation under DERP, and wil not be proposed unless the site was "owned by, leased to, possessed by, or otherwise under the jurisdiction of the Secretary of Defense at the time of activities which resulted in hazard.

CEMP-RF (200-1a)

SUBJECT: DERP Site Eligibility Policy Clarification of OEW at FUDS

3. This action was coordinated with the office of: The Director____ of Environmental Programs; Environmental Law Division of the Judge Advocate General, and General Counsel.

-4--- POC: Mr. Jim Coppola (202) 504-4992. ____

FOR THE DIRECTOR OF MILITARY PROGRAMS:

KA CARY JONES

Chief, Environmental Restoration

Division

Directorate of Military Programs

CF: DASA (ESOH) DAIM-ED-R

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX G

REAL ESTATE DOCUMENTS

APPENDIX G

Real Estate Documents

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- G-1. Report of Excess Real Property, .03 Acres Containing Fire Control Tower and Auxiliary Power Plant, 9 May 1950 (B-60).
- G-2. Real Estate Letter Granting the Transfer of 96 Acres (more or less) of Department of the Army Camp Hero Land to the Department of the Air Force, Circa 1951 (B-61).
- G-3. ENG Form 836 (Final), Camp Hero Real Property Management and Disposal Report, 6 January 1956 (B-62).
- G-4. Real Estate Letter (W/Attachments) Granting Transfer of 8.1 Acres of Department of the Army Camp Hero Land to the Department of the Air Force, 20 December 1956 (B-63).
- G-5. Real Estate Memorandum (W/Endorsements) Concerning the Disposal of Camp Hero Real Estate, 31 March 1960 (B-64).
- G-6. Real Estate Memorandum (W/Endorsements and Disposal Report) Concerning the Disposal of Camp Hero Real Estate, 20 October 1960 (B-65).
- G-7. Real Estate Memorandum (w/attachments) Granting the Transfer of 192.25 Acres of Department of the Army Camp Hero Land to the Department of the Air Force, 31 March 1964 (B-66).
- G-8. Standard Form 118 (w/attached determination of surplus), Report of Excess Real Property for Camp Hero Cable Line Easements, 9 December 1965 (B-67).
- G-9. Real Estate Letter Cancelling License Agreement for Camp Hero Subterranean Communication Cable, 16 December 1965 (B-68).
- G-10. Quitclaim Deed for the Transfer of a Camp Hero Perpetual Underground Cable Easement, 25 May 1966 (B-69).
- G-11. Real Estate Memorandum for Record Terminating (by Abandonment) the Permit for a Camp Hero Drainage Ditch, 1 May $1967 \, (B-70)$.

- G-12. Real Estate Memorandum Endorsement Reporting the Excess Status of Camp Hero Department of the Army Lands, 30 October $1968 \ (B-71)$.
- G-13. Real Estate Disposal Report No. 283 Reporting the Facts Concerning the Proposed Disposal of Remaining Camp Hero Department of the Army Lands, 30 April 1969 (B-72).
- G-14. Standard Form 118, General Services Administration Report of Excess Real Property Reporting 119.26 Acres of Camp Hero Land Excess to the Needs of the Department of the Army, 10 November 1972 (B-73).
- G-15. Real Estate Memorandum (w/attachment) Granting the Transfer of 6.25 Acres of Department of the Army Camp Hero Land to the Department of the Air Force, 26 December 1972 (B-74).
- G-16. Quitclaim Deed for the Transfer of 119.26 Acres of Camp Hero Land to the State of New York, 18 July 1974 (B-75).
- G-17. Real Estate Letter (w/attachments) Granting the Transfer of Five (5) Acres of Department of the Army Camp Hero Land to the Department of Transportation (U.S. Coast Guard), 16 September 1974 (B-76).
- G-18. Real Estate Letter (w/attachment) Granting the Transfer of 1.29 Acres of Department of the Army Camp Hero Land to the the Department of Transportation (U.S. Coast Guard, 29 August (B-77).
- G-19. Real Estate Letter (w/attachments) Granting the Transfer of 17.40 Acres of Department of the Army Camp Hero Land to the the Department of the Navy, 26 June 1978 (B-78).
- G-20. Quitclaim Deed for the Transfer of 18.09 acres of Former Camp Hero Land to the State of New York, 8 February 1984 (B-79).
- G-21. Tax Assessment Maps and Listings, October 1997 (B-80).
- G-22. Montauk State Park Surplus Federal Property Conveyance Map (B-81).

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502 Harbor Defenses of Long Island Sound, New York ENGLT

The Honorable

The Secretary of the Air Force

Dear Mr. Secretary:

Reference is made to communication dated 19 October 1949 from the Chief of Staff, United States Air Force, to the Director of Logistics, General Staff, Department of the Army, subject: "Camp Hero, Montauk Point, Long Island, New York," your file AFMAI, requesting the transfer from the Department of the Army to the Department of the Air Force of a portion of the Camp Hero Military Reservation for use as an aircraft control and warning station.

In compliance with request contained in above referenced communication, that portion of Camp Hero containing 96 acres of land, more or less, together with improvements thereon, and rights-of-way for access road and sewer line, as described in detail in the inclosure herewith, is hereby transferred to the control and jurisdiction of the Department of the Air Force.

The lands and rights-of-way easements transferred are described in the inclosed Ferimeter Description, Inclosure No. 2, and shown on the inclosed map, entitled "Real Estate, Camp Hero Military Reservation," Inclosure No. 3. The improvements transferred are listed and described on Inclosure No. 4, entitled "Buildings and Facilities at Camp Hero to be Transferred to Department of the Air Force," and shown on the Layout Plan attached thereto.

Authority for the transfer is contained in the National Security Act of 1947 as amended (61 Stat. 508; 5 U.S.C. 171 1) and the Act of Congress approved 11 July 1919 as amended (63 Stat. 495, 559; 10 U.S.C. 1274).

The District Engineer, Corps of Engineers, in New York, will communicate with the Commanding General, Continental Air Command, Mitchel Air Force Base, for the purpose of effecting transfer of accountability for the property.

Sincerely yours,

(Signed) Frank Pace, Jr.

Frank Pace, Jr. Secretary of the Army

Perimeter Description

All that tract or parcel of land situate in the Town of Easthempton. County of Suffolk, State of New York, being part of Camp Hero Military Reservation and more particularly described as follows: Beginning at the intersection of the northerly boundary of the Camp Hero Military Reservation with the easterly side of Access Road "A". Said point being easterly along said northerly boundary 1500 feet more or less from the northwesterly corner of said Military Reservation. Running thence (1) in an easterly direction 640 feet along said northerly reservation boundary to a point; thence (2) S 34° E 1990 feet more or less; thence (3) N 56° N 100 feet to a point 250 feet northwesterly, at right angles, from the centerline of the gun mounts of Battery Dumm; thence (4) N 360 E 780 feet more or less, parallel to said centerline and 250 feet northwesterly therefrom to a point 200 feet northeasterly from a line perpendicular to the centerline of the aforesaid gun mounts and passing thru the center of the northeasterly gun mount; thence (5) S 84° E 500 feet to a point; thence (6) S 36° W a distance of 1075 feet more or less to a point on the prolongation of course (2) above; thence (7) S 34° E 1110 feet more or less to the northerly side of Montank Highway; thence (8) along the northerly side of said Highway in a westerly direction 1110 feet more or less to a point 1000 feet southwesterly, at right angles, from course (7) above; thence (9) N 34° N 1870 feet more or less to a point 50 feet southwesterly at right angles from the northeasterly side of Access Road "A", thence (10) in a northwesterly direction parallel to said Access Road "A" and 50 feet southwesterly from the northeasterly side thereof a distance of 880 feet more or less to a point; thence (11) at right angles in an easterly direction, crossing Access Road "A" a distance of 50 feet to the easterly side thereof; thence (12) in a northerly direction along the easterly side of Access Road "A" a distance of 1120 feet more or less to the point or place of beginning.

Containing 96.0 acres of land, more or less.

Together with two easements for access roads, said easements being more particularly described as follows:

(I) Beginning at the northwesterly corner of the above described 96.0 acre parcel at the intersection of the northerly boundary of the Camp Hero Military Reservation with the easterly side of Access Road "A": Running thence (1) in a southerly direction along the easterly side of said road a distance of 1120 feet more or less to a point: thence (2) at right angles westerly, crossing Access Road "A", a distance of 50 feet to a point; thence (3) in a northerly direction, parallel to course (1) above, a distance of 1120 feet more or less to the northerly reservation boundary; thence (4) along said northerly boundary in an easterly direction 50 feet more or less to the point or place of beginning.

(II) A strip of land 20 feet in width and approximately 1100 feet in length, including all of Montauk Highway adjoining the above described 96.0 acre parcel on the south.

Containing within the two above described road easements a total of 1.8 acres of land, more or less.

Also two easements over existing sever lines, said easements to be 20 feet in width, the centerlines of which follow the centerlines of the existing severs, and are more particularly described as follows:

- (1) Beginning at a point on the centerline of the existing Sever Line "D", on the northerly side of Access Road "A", Said point being in the easterly boundary of the above described 96.0 acre parcel. Running thence in a northerly direction 570 feet more or less along the centerline of said existing Sever Line "D" to its intersection with the centerline of Sever Line "E"; thence along the centerline of said Sever Line "E" in an easterly direction, crossing Access Road "A" and along the northerly side of Access Road "D", a distance of 1225 feet more or less to the centerline of existing Sever Line "T"; thence in a southerly and southwesterly direction along the centerline of said existing Sever Line "T" a distance of 2000 feet more or less to the mean low water line of the Atlantic Ocean.
- (2) Beginning at a point on the centerline of existing Sever Line "J" on the northerly side of Montauk Highway, in the easterly boundary of the 96.0 acre parcel above described. Running thence along the centerline of said existing Sever Line "J" in a general northeasterly and northwesterly direction a distance of 1850 feet more or less to the centerline of existing Sever Line "Z".

Containing within the two above described 20 foot easements a total of 2.60 acres of land, more or less.

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INSTRUCTIONS

All numbers will be rounded to the nearest dollar or acre in preparing this report

- A. REPORTS WILL BE PREPARED MONTHLY AS OF THE 16TH
- A. REPORTS WILL BE PREPARED MONTHLY AS OF THE 1811 DAY OF FACH MONTH.

 B. REPORTS WILL BE FREPARED IN QUADRUPLICATE FOR THE FOLLOWING DISTRIBUTION: Original and one copy will be forwarded so as to reach the Chief of Engineers, ATTENTION ENGLIF, not later than the 28d day of the month in which the report is prepared. One copy forwarded to the Division office and one copy retained in the
- One copy forwarded to the Division onice and one copy commencing with the month in which the installation or any portion thereof is placed in Standby, Inactive, Excess, or Surplus status and continued until excess or surplus property is disposed of by transfer, sale, termination of lenses, or otherwise, but if another portion of the installation is placed in a continue of the con ptus property is disposed of by transfer, sale, termination of lenses, or otherwise, but if another portion of the installation is placed in a management or disposal status at a later date and the report resumed, all previous actions subsequent to 1 July 1918, will be reflected; where the installation or portion thereof is inactive or Standin; the report may be suspended when the granting of temporary use of facilities made available for such purposes shall have been encuplected or definite infortention shall have been received that temporary use of facilities at installations or portions thereof in Standiny or Inactive status caused be granted. Only military installations are definitively placed in a Standiny or Inactive status; therefore, reports covering Givil Works or Atomic Energy Commission Projects are required only in connection with Excess or Surplus statuses. Where no progress has been made during a reporting period, a "Negative ENG Form 336" may be submitted identifying the installation, the State, the Division, the District, and the reporting period with the words, "No Progress since rejort sheed . . .", posted in PART 11 of the report.

 D. PART I will identify the installation as to name, location, department and type and set forth the entire acreage either acquired or being acquired. The acreage will be divided to abow Fee Owned, Public Lands (Pablic Lands (Pablic Domain and Lands transferred from other Government Agencies), Lessed, and Lesser Interests. If an Installation is part Industrial and part Command, the acreages of these parts similarly broken down
- (Public Domain and Lands transferred from other Government Agencies), Leased, and Lesser interests. If an installation is part Industrial and part Command, the acreages of these parts similarly broken down will be reflected in "Remarks." State, County or municipally owned lunds will not be shown as Irbuils Lands.

 E. PART II will reflect information as to areas which have been placed in a "Standby," "Inactive," "Excess," or "Surplus" status. A separate line will be used for each report of status, but subsequent withdrawals or adjustments affecting an area will be reflected by net figures with an explanation under "Remarks." The date will be that on which the Appropriate Authority approved the status. A symbol P or E will be used to denote whether the area in a Portion of or the Entire installation. The acreage will be divided as explained in PART I above, but will cover only the actual area or areas involved, the nature or use of the area will be reflected under "Nature of facilities," (. e. Housing Area, Warehouse Area, Modification Center No. 2, POW Carup, etc. and if the installation is comprised of both command and industrial portions the Symbol I (Industrial) or C (Command) will be used to indicate to which portion the area belongs. The cost of India that and construction will be shown under "Cost to Government." If the Corps of Engineers assumed custody the date will be shown, otherwise "NO" will be entered in the last column.

 F. PART III will reflect management of disposal actions taken in connection with areas listed under PART II. The reference column will indicate the area by referring to the line on which it is listed under PART II (A, B, C, etc.) and the appropriate column (1), (2), (3), or (4). No areas or portions of areas which were listed separately in PART II will be combined in a single line under PART III: however.

- It may be necessary to use several lines under PART III to reflect separate actions taken in connection with an area listed on a single line under l'ART II. The latter occurrence will be expicited under "Remarks" and if necessary a further division of acreuge recited.

 (1) TEMPORANY USE GRANTS will be reported by cumulative figures shorting the number of instruments, acres involved and annual consideration. When right of entry has been given but a formal instrument not executed and efficiency division with properties footnote under "Remarks" including date right of entry granted. After delivery of the instrument it will be reported "granted." "Purpose" will reflect type of interest Le for Lesse, Li for License and the proposed use of the area, such as agriculture, industrial, elec. Elators. proposed use of the area, such as agriculture, industrial, etc. Elatora-
- proposed use of the area, such as agriculture, industrial, etc. Elatoration where necessary will be made under "Remarks."

 Remarks or WAA on GSA will include only property formally reported by Forms SPII-5, SPA-5, WAA 1906, or GSA Form 30 for disposal last will not include leases reported for clearance purposes only. The following will be recorded: date of report, name of disposal agencies designated. (In case of bertaration of Surplus to WAA and its predecessor agencies, the date designation agency designated. (In case of bertaration of Surplus to WAA and its predecessor agencies, the date of designation of disposal agencies need not be recorded unlead resolidy available.) Disposition column will be utilized (a) to reflect assumption of costood by the disposal agency by recording the symbol "CT" followed by the date of assumption, or (b) to refer to further disposal actions recorded in subsequent portions of the report where the GE is designated disposal agency or is acting under specific direction of GSA. The symbol "TR" will refer to "Transfer to other Government Agencies." The symbol "LC" will refer to "Lasse Cancellations."

 The symbol "OIP "REFORMENT AGENCIES will include transfer, re-Tansfer to Offser OVERNMENT AGENCIES will include transfer, re-Tansfer to Offser OVERNMENT AGENCIES will include transfer, re-
- (2) TRANSFERS TO OTHER GOVERNMENT AGENCIES will include transfer, re-TRANSPERS TO OTHER GOVERNERST AGENCIES will include transfer, retrainier, or relinquishment of all types of interests or estates to another Government Agency not acting as a disposal agency. If property has been reported to GSA and so recorded under "Reported to WAA or GSA" the entry in the reference column will be preceded by the symbol "R." Entries in the second, third, and fourth columns will be made from Information or informational copies of documents received from OCE, except when leases are transferred at the direction of GSA Field Offices. The date restoration or building disposal (if required) is completed will be shown, otherwise the entry "noue" will be made. The last column will reflect the date of written acceptance either from a field or departmental level with appropriate notation in "Remarks." tion in "Remarks."
- tion in "Remarks."

 LASE CANCELLATIONS will include all-excess or surplus lenses which have been canceled or are proposed for cancellation. If kenses have been canceled for disposal to GSA (GSA Form 38), entry in the "Reference" column will be preceded by the symbol "R" and no entry will be made in "Reported to GSA" column. If lenses ha lecen reported to GSA (GSA Form 30) for clearwave purpuses on the symbol "R" will not be placed in the "Reference" column and to date they were "Reported to GSA" for clearance will be recorded. As explanatory entry, reflecting disposal status, reasons (or delay and expected termination date, will be made in "Remarks" for any lense that has been in an excess status for a period of 90 days or longer.
- that has been in an excess status for a period of 99 days or longer.

 OTHER DISPOSALS will include sales, termination of special contracts involving interests in resity, disposal of easements, etc. Entries most nearly applicable to the circumstances will be recorded with an explanation in "Resnarks" to explain unusual actions. If the property has leess formally reported to GSA (by GSA Form 30) the symbol "R" will precede the entry in the "Reference" column.

CAMP HERO, INSTALLATION NO. 2189 REMARKS PART II Public Lunds dature of Facility Cost to Government Ref. Authority Fee Leased 0.27** R 0.29*** C 96.94 1.68 621,068.00 Note 41,910.CU D Note 1 Talegione Equipm't 1.451.86 R Note 2 4.11

*Permit from Department of Navy for use of pier and loading crane. #Cost pertains to Lease W80-082eng882 only.

Note: 1st indorsement from ACofS, D/Army to CE, dtd 1-4-51, subj: "Withdrawal of Portion of Camp Hero from Surplus", file 04/02 104.

Note 1: 4th ind dtd 6-19-55 from DA, OC of E to hAD, subj: "Sale of Subterranean Communication Cable - Montauk Foint to East Hampton, Long Island, New York".

Note 2: 4th ind dtd 6-27-55 from Dep Chief of Staff for LOC, LCC/H 32612 to Ch of Eng, Bldg T-7, Gravelly Pt., Va. subj: "Acquisition of Land for Family Housing, P-45, Montauk Point, L.I., N.Y.

> (continued) (see attached sheet)

CAMP HERO, INSTALLATION NO. 2189 (cont'd)

PART III

Temporary Use Grants

Permit, Contract #22-3, effective 4-6-51, to D/AF for 50' right of way for access road "A" and 20' right of way, including Montauk Highway, containing a total of 2.60 acres. Permit, Contract #22-4, effective 10-21-55, to D/AF, for three 25' rights of way for utilities, containing 0.75 acres.

License, Contract #NYDRE (M) 1855, effective 1-13-55, to N. Y. Telephone Co. to maintain

and operate telephone cable line - no acreage.

Transfer or Retransfer to Other Government Agencies

Lease W30-082eng1939, Montauk Beach Co., transferred to Navy. A(3) Permit from Dep't of Navy for use of pier and loading crane. C(2)

96.94 acres transferred to Dept of the Air Force. C(1)

4.11 acres transferred to Dept of the Air Force.

Lease Cancellations

B(3) W19-016eng 435 0.29 acres

C(3) W30-082eng882

D

1.68

\$21,068.00

Other Disposals

\$41,910.00

Telephone Equipment * * * * on 8-28-50 a letter was written by oce to the Dept. of the nowy fairnally relinquishing Use Permit (no area) dated 6-1-45. The farmal acknowledgment of acceptance of accountability received from the

COPY

DEPARTMENT OF THE AIR FORCE HEADQUARTERS UNITED STATES AIR FORCE WASHINGTON 25. D. C.

AFCIE-ROO-6

20 DEC 1956

MEMORANDUM FOR DEPUTY CHIEF OF STAFF FOR LOGISTICS, DEPARTMENT OF ARMY

SUBJECT: Transfer of Land at Camp Hero, Montauk Point, New York, from the Department of the Army to the Department of the Air Force

- 1. It is advised that the Air Force desires to locate additional family housing on Camp Hero, Montauk Point, New York, to support the existing AC&W facility.
- 2. The proposed location for this construction, which is indicated in red on the attached map, comprises an area of approximately 8.1 acres.
- 3. If you concur in the location of these facilities, as indicated on the attached map, it is requested that the 8.1 acres of land be transferred to the Air Force.
- 4. Expeditious action on this matter is requested since the beneficial occupancy date for this construction is August 1957.

FOR THE CHIEF OF STAFF:

THOMAS H. GARRETT/s/

1 Incl
Family Housing Site Plan
(Dup)

THOMAS H. GARRETT Colonel, U.S. Air Force Chief, Real Estate Division Directorate of Real Broperty, ACS/I

oc: Comdr. ADC

SUBJECT: Transfer of portion of Camp Hero, New York, to the Jurisdiction of the Department of the Air Force

- 1. Reference is made to memorandum from the Department of the Air Force, dated 20 December 1956, requesting transfer of jurisdiction over approximately 8.1 acres of land within the Camp Hero Military Reservation, New York.
- 2. Pursuant to the authority contained in the Act of Congress approved 4 August 1949 (63 Stat. 546), as amended by Public Law 73, 84th Congress approved 15 June 1955 (69 Stat. 134), 14 U.S.C. 610, the Department of the Army transfers, without exchange of funds, jurisdiction of the above-designated land to the Department of the Air Force, effective this date. The property is more particularly identified in the inclosed map and copy of 8th indorsement to the District Engineer, United States Army Engineer District, New York, dated 10 May 1957.
 - 3. The requirements of Title 10, Section 2662, are inapplicable.

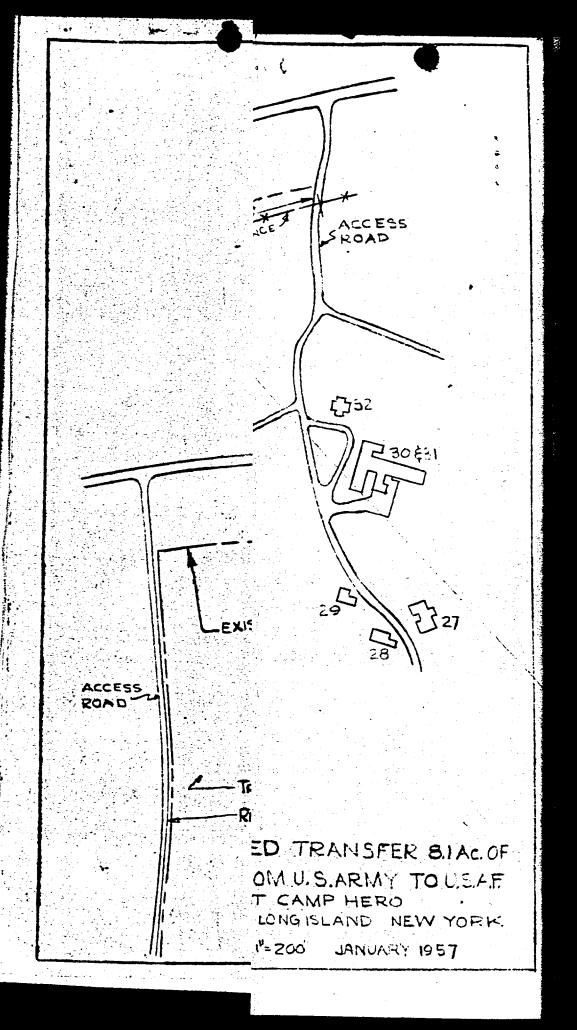
2 Incl

1. Map

2. Cy 8th Ind to NY Dist Engr dtd 10 May 57 Wilber M. Brucker Secretary of the Army

CC: Div Engr, USArmy Engr Div, N'Atlantic New York, N.Y.

co: Dist Engr, USArmy Engr Dist, N.Y., N.Y.



turout

HEADQUARTERS, FIRST UNITED STATES ARMY
GOVERNORS ISLAND, NEW YORK 4, NEW YORK

AHFEN(2)

31 MAR 1960

SUBJECT: Disposal of Real Estate - Camp Hero, Montauk Point, Long Island, New York

TO:

Commanding General

Fort Totten

Fort Totten, New York

- 1. Attention is invited to inclosed copy of message, ADAE-3-1055-60, dated 3 March 1960, from the Commanding General, 1st Region, US Army Air Defense Command, indicating that current planning does not envision the utilisation of Camp Hero for future ARADCOM deployment, Inclosure No. 1.
- 2. In view of the above and as Camp Hero is in inactive status with no foreseeable First US Army requirement, it is requested that action be initiated in accordance with paragraph ha, AR 405-90 to place this facility in excess status.
- 3. Maps and/or plot plans required by above reference will be submitted in triplicate.
- 4. Commitments affecting disposition will include identification of existing outgrants.

FOR THE COMMANDER:

1 Incl Copy Mag dtd 3 Mar 60

ROBERT E. WILSON CAPT, AGC Asst AG

Copy furnished: CG, lst Egn AA Def Comd

COPY

FOR OFFICIAL USE CIVLY

G-5

AUSEN (31 Mar 60) lat Ind SUBJECT: Disposal of Real Estate - Camp Hero, Montauk Feint, Long Island, New York

1960

HEADQUARTERS FORT TOTTEN, Fort Tetten, Flushing 59, New York, 23 MAY 800

- TO: Commanding General, First United States Army, Governors Island, New York 4, New York ATTENTION: AHFEN (2)
- 1. Reference paragraph 2, basic communication, in accordance with paragraph 4 a, AR 405-90, recommend that Camp Hero, Montauk Point, Long Island, New York, be placed in an excess status.
- 2. The following information is furnished in support of this recommendation:
- a. Emp Hero, Montauk Point, Long Izland, is a Class I sub-imstallation of Fort Totten, New York, situated approximately six miles east of Montauk, Long Island (see attached site plan, inclosure #2).
- b. Camp Hero has been on an inactive status since 3 January 156. This reservation comprises 3c2.64 acres of land and 38 buildings of semipermanent construction. The mission of Camp Hero is to maintain the post
 on a caretaker basis in accordance with General Order Nr. 1, Department
 of the Army, 1958. Two civilian employees have been retained to perform
 this mission. Buildings have deteriorated and require extensive maintenance
 and repairs. Exterior painting and replacement of deteriorated siding is
 required on all buildings. Utility lines are generally in good condition.
 Roads and grounds require maintenance and repairs. No contract work has
 been performed since inactivation.
- c. Camp Hero is a sub-installation of Fort Totten, New York, and is being maintained on a caretaker basis.
- d. Camp Hero comprises 362.64 acres of government owned land acquired in fee by the Federal government.
 - e. The real estate is now available for excess status.
- f. There are no contractual commitments which would affect disposition. There is a Cross Servicing Order and Acceptance Order Mr. 2-58, whereby the Department of the Army furnishes sewage treatment to the Department of the Air Force who, in turn, furnishes water and electricity to the Department of the Army on a common (free) basis. No fund transfers are involved.

AHSEM

1st Ind

SUBJECT: Disposal of Real Estate - Camp Hero, Mentauk Point, Long Island, New York

h. The following active outgrants are in effect at Comp Here:

Instr. Nr.	Туре	Term of Instrument	Grantee	Rights Granted
√ NY DRE (M) 298 €	Bl. Permit	25 April 1956 to 24 April 1961	Dept. of Air Force	To construct, use and main tain read acress .3 acres at Camp Here for access to highway.
√ NYDROS(H) 375	(Revo- cable)	13 Jan 1958 thru 12 Jan 1963	N. Y. Tele- phone Com- pany	To maintain and sperate existing telephone calls line running along Old Houtank Highway in Comp Here. May be terminated by Tel. Co. on 10 days written notice.
DA 30-075- eng-8870	Permit	13 April 1959 thru 12 April 1964	Dept. of Air Force	Use and occupy Bldg. The
NYDRE(M)383	% Permit (Revo- cable)	1 May 1958 thru 30 April 1963	•	To use and escapy 10 and acres for seasons to season system.

- 1. No neutralization work is required at the installation.
- j. The area involved does not include a post cemetery.

FOR THE COMMANDER:

Fon p. Danie Jr.

DOR P. DAVIS.

15 It, AGC Aust Adjutant

Added 1 incl: (in trip)
2. Drawing 18-02-01

2 Incls

1. n/c

Copy furnished: District Engineer, U. S. Engineer District

EOR OFFICIAL USE ONLY

AHFEN(2) (31 Mar 60) 2d Ind SUBJECT: Disposal of Real Estate - Camp Hero, Montank Point, Long Island, New York 2 4 JUN 1960

HEADQUARTERS, FIRST UNITED STATES ARMY, Governors Island, New York 4, MY

THRU: Commanding General, United States Continental Army Command, Fort Monroe, Virginia

TO: The Adjutant General, United States Army, Washington 25, D. C. ATTN: DCSLOG

1. References:

- a. Message, DA 463897, DCSLOG/N1, 5 February 1960.
- b. Message, ATLOG-FA 772304, CONARC, 8 February 1960.
- c. Message, AHFKD, Headquarters, First United States Army, 14 March 1960.
- d. Sixth indorsement, AHFEN(2) 602 (Camp Hero)-2, Headquarters, First United States Army, 19 December 1958, subject: "Quitclaim of Cable Easement Camp Hero and Prospect Hill, Montauk, New York."
 - e. AR 405-90, paragraph 4a.
- 2. In accordance with reference le, information is furnished that 359.54 acres of land at Camp Hero, Long Island, New York, as described in preceding indorsement and outlined in red on inclosed Project Map, File Number NED-PA-671, (Inclosure No 3) is no longer needed for the mission of this command and recommendation is therefore made that it be placed in excess status. Map (Inclosure No 3) has been added to differentiate between the area owned in fee by Department of the Army and the area cumed by Department of the Air Force, as referred to in paragraph 6 below.

- 3. In addition to above land, the government has easement rights over 3.10 acres which are being partially extinguished as explained in paragraph 7 below. Easement over remaining tract 27P comprising .25 acres is also recommended for excess action. Information is furnished that the data presented in paragraph 2d, preceding indorsement, represents 359.5h acres of land owned in fee and 3.10 acres over which the government has easement rights.
- 4. As indicated in Inclosure No 1, the First Region, United States Army Air Defense Command does not envision the utilization of Camp Hero for future ARADCOM deployment.

4

2 4 JUN 1360 -

AHFEN(2) (31 Mar 60)

SUBJECT: Disposal of Real Estate - Camp Hero, Montauk Point, Long Island, New York

- 5. Information required by reference 1e is contained in preceding indorsement and is approved. In addition to outgrants referred to in paragraph 2f of the same indorsement, there is pending a proposed outgrant to Department of the Air Force, authorizing use of Buildings Numbers T33, T37, T43 and additional areas as outlined in red on inclosed Site Plan, revised February 1958, of Camp Hero (Inclosure Nr 4). The District Engineer, United States Army Engineer District, New York is being instructed to advise the Air Force of the nature of the action contemplated by this indorsement, so that the Air Force may take appropriate action to protect their interests to the extent desired.
- 6. It should be noted that excessing action contained herein pertains only to that portion of Camp Hero under control of Department of the Army. The Air Force has fee title to 109.15 acres of Camp Hero comprising 3 parcels as shown by cross-hatching on inclosed Project Map (Inclosure Nr 3).
- 7. It should also be noted that certain cable easement areas were previously declared available for excessing action by reference 1d (Inclosure Nr 5). The District Engineer has advised this headquarters that part of these easements are in the process of being acquired by the Air Force; the remaining cable easements will be extinguished.

FOR THE COMMANDER:

5 Incl

added 3 Incl
3. Map NED-PA-671 (in trip)

4. Site Plan Cp Hero (in trip)

5. Cy 6th Ind, this hq, 19 Dec 58 (in trip)

Copy furnished:

CG, Fort Totten, N.Y.

DE, US Army Engr Dist, N.Y.

MARTHA R. DENNIS Captain, WAC Act Asst Adj Gen

Martin RDem

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KOR OFFICIAL USE ONLY

G-,5

100/N1 23750

lith Ind

SUBJECT: Disposal of Real Estate - Camp Hero, Montauk Point, Long Island, New York

Headquarters, Department of the Army, Office of the Deputy Chief of Staff for Logistics, Washington 25, D.C.

JUL 15 1960

TO: Chief of Engineers, Department of the Army, Washington 25, D.C.

- 1. Approximately 359.5h sores of fee-owned land with improvements and 3.1 acres of easement interest at Camp Hero, Long Island, New York, as described in 1st and 2nd Indorsements and shown on inclosures 3 and 4, are determined to be excess to Department of the Army requirements.
- 2. The Chief of Engineers will initiate action to dispose of the above property in accordance with applicable laws and regulations.

BY DIRECTION OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS:

(s) R. A. Flanders

5 Incls nc

E. A. FLANDERS Colonel, GS Acting Deputy Chief, Real Property Division

OOPI

Largera

MANA

20 October 1960

SUBJECT: Disposal of Camp Hero, Montauk Point, Long Island, New York - Congressional Clearance

THRU: Division Engineer
U.S.Army Engineer Division, North Atlantic
New York 7, Hew York
ATTENTION: NADRE-M

TO: Chief of Engineers
Department of the Army
Washington 25, D.C.
ATTENTION: ENGRE-MI

- 1. In accordance with EM 105-31-905, inclosed is Eng Form 2187-R for subject installation for presentation to the Armed Services Committees of Congress.
- 2. Subject installation was acquired in 1942 for the Department of the Army as a site for harbor defense installations and consisted of approximately 468.69 acres fee and 5.34 acres lesser interests acquired at a cost of approximately \$242,304.00. Approximately 109.15 acres fee and .96 acres easement have since been transferred to the Department of the Air Force. The present area of Camp Hero is comprised of 359.54 acres fee, 1.85 acres easement, 0.04 acres license and 0.25 acres permit.
- 3. In 1969 subject installation was declared excess and in 1951 was withdrawn from excess status and placed under jurisdiction of the Commanding General, First United States Army for use as a firing range and field exercise area for AAA units in the vicinity of New York. By General Order No. 1, dated 3 January 1958, Camp Here was placed on an inactive status. Current planning does not envision the utilisation of Camp Here for future Army Air Defense Command Deployment.
 - u. The cost of existing improvements was \$466,327.00.
- 5. This office has been advised that no contract work has been performed since impativation on 3 January 1958 and that the buildings, numbering approximately 32, have deteriorated and require extensive maintenance and repairs. Exterior painting and replacement of deteriorated siding is required on all buildings. Utility lines are generally in good condition. Roads and grounds require maintenance and repair.

NANRM 20 October 1960
Subject: Disposal of Camp Hero, Montauk Point, Long Island, New York Congressional Clearance

- 6. The following outgrants at Camp Hero have been issued:
- a. Permit (NYDRE(M)-2984) to Department of the Air Force of approximately .30 acres to construct, use and maintain a road. Said permit expires 24 April 1961.
- b. Permit (DA 30-075-Eng-8870) to Department of the Air Force to use and occupy Buildings T-33, T-37, T-26 and approximately 18 acres of land. Said permit terminates 24 April 1964.
- c. Permit (NYDRE(M)-3836 to Department of the Air Force to use and occupy approximately 19.68 acres of Seaward Extension Radio System. Said permit ends 30 April 1963.
- d. License No. NYDRE(M)-3750 to New York Telephone Company to maintain and operate the existing telephone cable lines running along and under Old Montauk Highway. License ends 12 January 1963.
- e. Included in transfer from Department of the Army to Department of the Air Force of 21 October 1950 were rights of way for utilities containing approximately 3.8 acres.
- f. Included in transfer from Department of the Army to Department of the Air Force of 21 October 1955 were rights of way for access roads and sever lines containing approximately 4.40 acres.
- g. There is a cross servicing order and acceptance order No. 2-59 whereby Department of the Army furnishes sewage treatment to the Department of the Air Force which furnishes water and electricity to Department of the Army on common (free) basis.
- 7. Subject property has been screened with the Department of the Havy and Department of the Air Force. Department of the Havy does not have a requirement for the premises. Commander, Air Defense Command, has advised that a request for transfer of the land permitted to the Department of the Air Force is being processed by 26th Air Division to Air Defense Command and that the request is expected to reach Deputy Chief of Staff, United States Air Force, Directorate of Civil Engineering, on or about 21 October 1960.
- 8. In accordance with letter from ENGLL dated 12 November 1959, Subject: "Agreement Congressional Conditions and Disposal Department of the Army Real Property", the following information is furnished:

HANRIE

20 -ctober 1960

Subject: Disposal of Camp Hero, Montauk Point, Long Island, New York - Congressional Clearance

- (1) There are no continuing Department of the Army activities housed on the property to be disposed of.
- (2) There are two wage board employees at Camp Hero who perform caretaker functions. These employees will be offered continued employment in different geographical areas where vacancies may exist. However, such employees have indicated that they would not want to leave Montauk Point area and will attempt to gain employment with the Department of the Air Force at Hontauk Point.
- (3) Neither this office nor First United States Army has issued releases concerning subject installation nor notified local Congressional delegations.
- 9. There are inclosed Final Project Ownership Map (2 sheets) of subject installation dated 12 May 1953 and Utilisation Inspection Report dated 3 March 1959. Tracts 3hE, 30E, 29E, 28E and 23L as shown on sheet 2 of inclosed map have been transferred by Department of the Army to Department of the Air Force by letter of transfer affective 21 June 1960.

FOR THE DISTRICT ENGINEER:

3 Inol
1.Eng Fm 2187-R(in trip)
2.Final Proj Oun Hap(2 sheets)- in the
3.Utiliz.Insp.Rpt
WILIAM A. ROWLAND
Chief, Real Estate Division
Lip
3.Utiliz.Insp.Rpt

bl

NAIRE-H (20 Oct 60) 5th Ind SUBJECT: Disposal of Camp Hero, Montauk Point, Long Island, New York -Congressional Clearance

U.S. Army Engineer Division, North Atlantic, New York, New York, 7 Harch 1961

TO: Chief of Engineers, Department of the Army, Washington, D.C. ATTENTION: ENGRE-MC

- 1. Reference is made to letter ENRE-MC, Camp Kilmer, N.J., 2h February 1961, to the Commissioner, Public Buildings Services, General Services Administration, this office and District Engineer, New York District information addressees. This letter suggested that the cost for surveying boundaries of excess real property be borne by the purchaser or by General Services Administration, with reimbursement from the fund provided by Section 20h(b) of the Federal Property and Administration Services Act of 19h9, as amended.
- 2. Relative to the field survey requirement set forth in paragraph 2, 4th Indersement, it is felt that an adequate perimeter description of the land to be transferred to the Department of the Air Force can be prepared without actual field instrument survey, by correlation of information indicated on Inclosures 2 and 6, with supplementary data developed by field reconnects ance with the 773d Radar Equatron, Hontauk AF Stations Long Islands
 - J. In connection with the excess land, if the need for an actual field survey develops it should be undertaken by the General Services Administration pursuant to procedure proposed in letter referred to in paragraph 1, above. Should the survey establish need for belancing land acresges, this may be done by amending the Department of the Air Force transfer of land document.
 - h. The handling of this transaction as outlined in paragraphs 2 and 3 above will eliminate the expenditure of military appropriations for such purpose.
 - 5. The New York District Engineer is being instructed to proceed with the course of action outlined in paragraphs 2 and 3 above.
 - 6. It is recommended that the transaction be reported to Congressional Committees on the basis of EMO Form 2187-R referred to in paragraph 1, 4th Indorpment.

FOR THE DIVISION ENGINEER:

Real Est

6 Incl. 5 w/d

J. L. STRAUSS — Chief, Real Estate Division

Copy furnished: DE, NY - NAMEH W/d

INCLS 1 THRU 3 NOT NECESSARY IN NAD FILE PART OF INCL 4 (USAF 4th Ind) IS IN FILE INCLS 5 AND 6 ATTACHED HERETO

Organic

ENGRE-MC (20 Oct 1960)

Gamp Hero, Montauk Point, Long Island, New York

SUBJECT: Disposal of Gamp Hero, Montauk Point, Long Island, New York

HQ, DA, OCofEngrs, Washington 25, D. C.,

APR 1 7 1961

TO: Director of Civil Engineering, DCS/O, HQ, USAF ATTN: Real Estate Division

- 1. Camp Here, Montauk Point, Long Island, New York, was determined excess to the Department of the Army by the Deputy Chief of Staff for Logistics on 15 July 1960. Subsequent screening action indicates no requirement by the Department of the Navy, but that the Department of the Air Force requires a major portion thereof.
- 2. Since the proposed transfer involves a major portion of the excess installation, there is inclosed a suggested disposal project (Incl 5) for your use in submitting the transfer and disposal action to DOD for approval and in making a report to the Armed Services Committees of Congress.

FOR THE ACTING CHIEF OF ENGINEERS:

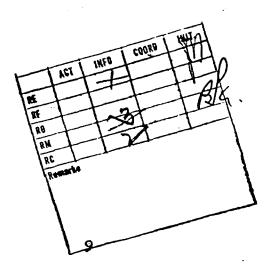
4 Incl
wd 2 Incl - Incls 1, 4
5. wd 2 cys

H. O'NEILL Chief, Management & Disposal Division Real Estate

Copies Turnished:

NAD

New York Dist



Je Bla Mr

SUBMITTED BY OFFICE OF THE CHIEF OF ENGINEERS REAL ESTATE DISPOSAL PROJECT NO.

Submitted pursuant to Title 10, United States Code, Section 2662, as amended.

Name of Installation:

Camp Hero Military Reservation.

Montauk Point, New York

Using Service:

First United States Army

Interest:

Fee, Essement, License and Permit

Former Use:

Harbor Defenses

Areas

359.54 Acres Fee 1.85 Acres Easement 0.04 Acre License

0.25 Acre Permit

Acquisition Cost, including cost of existing improvements:

Land Improvements **\$205,148,57** 466, 327.00 \$671,475.57

Proposed Action:

- Transfer of approximately 260 acres fee to Department of the Air Force.
- 2. Report the remainder of Camp Hero to General Services Administration as excess real property.

Authority:

- 1. For transfer to Department of the Air Force - Title 10. United States Code, Section 2571a.
- 2. For reporting to General Services Administration as excess real property - Federal Property and Administrative Services Act of 1949, as amended.
- 1. Camp Hero, situated 6 miles East of Montauk, Long Island, was acquired for Department of the Army in 1942 as a site for harbor defense installations. In 1949 this installation was placed in excess status and in 1951 was withdrawn from excess and placed under the jurisdiction of

Incl 53

Anision G-6

Commanding General, First United States Army, for use as a firing range and field exercise area for AAA Units in the vicinity of New York. By General Order No. 1, dated 3 January 1958, Camp Hero was placed on an inactive status.

- 2. a. Current planning does not envision the utilisation of Camp Hero for future ARADCOM deployment.
- b. The Department of the Air Force has requested the transfer of approximately 260 acres fee at Camp Hero for use by Hontauk Air Force Station, New York.

Contained within the requested area are the storm sewer drainage system and sewage facilities of Montauk Air Force Station, water well #5, said Stations emergency source for water, access roads (including the only entrance to the main Station and housing area), Trailer Court, small arms range, Fire House, Installations Shops, Motor Pool, softball diamond, auto hobby shop, skeet range, and paints and oils storage area.

A portion of the requested area is in the path of the Forward Propogation Tropospheric Scatter Signal used for communications and data with Texas Tower #3. It is required that this area remain free from any structure that would cause reflection and/or obstruction of the signals.

An area to the east would serve to protect Department of the Air Force in connection with possible radiation hazards from the AN/FPS-35 antenna.

The remainder of the 260 acres fee consists of dense brush and undergrowth on uneven terrain, containing swampy areas, which would serve as a security screen.

The area requested by Department of the Air Force is estimated to comprise approximately 260 acres. If transfer to the Department of the Air Force is authorized, same can be accomplished upon completion of a field survey.

3. Camp Here was maintained on a caretaker basis from inactivation in January 1958 to Nevember 1960.

On 1 Enventer 1960 the U. S. Army Engineer District, New York assumed care and custody of said installation. Care and custody is perferred on a contract basis. Said contract commenced 1 November 1960 ending 30 June 1961 and recites a consideration of \$17,60h.80. The buildings, numbering approximately 32, have deteriorated and require extensive maintenance and repair. The roads and grounds require maintenance and repair. The utility lines are generally in good condition.

- 4. Does not apply.
- 5. No acquisition by Department of the Army is planned for similar property in the vicinity.
 - 6. The estimated annual care and maintenance costs are \$10,000.00.
- 7. It is respectfully requested that approval of the Committees for the disposition herein outlined be given.



DEPARTMENT OF THE ARMY WASHINGTON 25, D. C.

81 MAR 1964

MEMORANDUM FOR THE SECRETARY OF THE ATR FORCE

SUBJECT: Transfer of a Portion of Camp Hero Military Reservation, Montauk, New York, to Department of the Air Force

Pursuant to your request and under authority contained in Title 10, United States Code, Section 2571, as amended, the Department of the Army hereby transfers approximately 192.25 acres of land, a portion of Camp Hero Military Reservation, Montauk, New York, as described in Exhibit "A" and outlined in red on maps marked Exhibit "B" and Exhibit "C," each attached hereto and made a part hereof, together with all buildings, improvements, facilities, and utilities located thereon, to the Department of the Air Force.

The requirements of Title 10, United States Code, Section 2662, as amended, have been met.

3 Inclosures

l. Exhibit A

2. Exhibit B

3. Exhibit C

STEPHEN AILES

Sooretary of the Army

G-7	
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1	U.S. Army Engr. Dist., New York			ATING	5. DIS- TRICT CODE		5. DATE		1 NST. • 3000 NUMBER 031-375	Credit Vou.	. /	8. CONTRAC NUMBER		
9. T		County AFB	10. OPER		10. OPERATING UNIT		10. OPERATING 11. DIS- UNIT TRICT CODE		13. AC- COUNTING NUMBER	14, AC- COUNT- ABLE OFFICE NUMBER	TYPE OF NEW CONSTI EXISTING FAC. CAPITAL IN OTHER (Speci	R. X BI	MSACTION BENF/O PHYSICAL COM. FINAN. COM. OTHER (Specify)	
ITEI NO		Y FACILITY (Category description)	NO. OF UNITS	TYPE	UNIT OF MEAS.	TOTAL QUANTITY		соѕт	DRAWII NUMBE		R	EMARKS		
	- 		20	21	22	23		24	25	_ _		26		
1	13290	Switch Board (Console)	1	P	-	2.00		700.00	FNY-249			No. 02		
2	13510	Telephone Cables	1	P	MI SF	17		000.00	FNY-249		c. No.			
3	21920	Post Engr. Fac.	1	P	SF	3 , 252 190		500.00	FNY-249	ارط کا	dg. No			
4 5	21920	11 11 11	1	P	SF	1710 130		1100.00			# #	1-27		
6	21920	11 11 11	li	ן ד	ST	190		000.00			11 H			
7	72210	EM Barracks w/o Mess	i	P	क्	1,427		200.00	FNX-578	R	11 11			
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11	72210	11 11 11	ī	P	SF	1,976		000.00	FNY-249		11 t	-		
12	72310	EM Mess Building	Ī	P	SF	3,016		100.00	FNY-248		H 11			
13	72310	n n n	ī	P	SF	5,040		500.00	FNY-249		n n	•		
14	72320	Latrine Building	1	P	SF	960		00.00			n 11			
15	72410	Officers' Quarters	1	P	SF	1,670		900.00	FNY-248	7	H H	•		
16	72410	и п	1	P	SF	1,670		900.00	FNI-238	7	17 11	1-25		
17	74053	Exch. Main Ret'l	1	P	STF	1,024	2,	100.00	FNY-284		** **	T_144		
18	81240	Elec. Distr. System	1 1	P	LF	3,650		00.00	FNY-247		Mc. No			
19	83120	Septic Tank	1 1	P	TG	50		000.00	Map #35		97 11	U/		
20	831.30	Ind Waste Treat.	1	P	রা	150		000.00	n	F	ac. No	•		
21	83220	Comb. Sewer	1	P	I.F	3,100		000.00	#		**	Uy		
22	84140	Reservoir	1	P	CAL	10,000	5,1	000.00	*1	1	17 11	10		

PERIMETER DESCRIPTION

PORTION OF CAMP HERO MILITARY RESERVATION

ALL those tracts or parcels of land situate in the Town of Easthampton, County of Suffolk, State of New York, being a portion of the Camp Hero Military Reservation and more particularly described as follows:

PARCEL NO. 1

Beginning at an iron pipe on the southeasterly side of New York State Highway Route No.27 at the most westerly corner of the Camp Hero Military Reservation. Running thence N 52039'29"E, along said highway boundary, 720.79 feet to a concrete monument; thence easterly, continuing along said highway boundary, on a curve to the right, a distance of 610 feet more or less to lands under the jurisdiction of The United States Air Force (Montauk Air Force Station); themce along said Air Force lands the fourteen (14) following courses and distances: (1) S 30°58'30"E 500.43 feet; (2) S 2047' 30"W 256.55 feet; (3) S 4024'10"W 166.74 feet; (4) S 1°44' 30"W 105.35 feet; (5) S 5°27'00"E 31.59 feet; (6) S 78°44'00"W 65.26 feet; (7) S 14005' 30"E 27.67 feet; (8) southeasterly, on a curve to the left, having a radius of 350.00 feet, an arc distance of 67.65 feet (chord of S 19°37'50"E 67.55 feet); (9) S 25°10'00"E 195.76 feet; (10) southeasterly, on a curve to the left having a radius of 500.00 feet, an arc distance of 171.45 feet (chord of S 34°59'30"E 170.62 feet); (11) S 44°48'50"E 89.40 feet; (12) southeasterly, on a curve to the left, having a radius of 325.00 feet, an arc distance of 184.89 feet (chord of S 61°06'40"E 182.40 feet); (13) S 77°24'30"E 222.62 feet; (14) S 33° 59' 10"E 1851.60 feet to the northwesterly side of Old Montauk Highway; thence in a general westerly and southwesterly direction, along said highway, being in part through lands of the Camp Hero Military Reservation, and part along the southerly boundary of said reservation, a distance of 1070 feet more or less to a three-fourths inch pipe set in the southwesterly boundary of said reservation; thence along the southwesterly boundary of said Camp Hero Military Reservation the three (3) following courses and distances: (1) N 39°35'23"W 2656.30 feet to a pipe; (2) N 50°24'11"E 400.00 feet; (3) N 39°36' 32"W 1441.22 feet to the point or place of beginning.

PARCEL NO. 2

Beginning at a point on the northwesterly side of Old Montauk Highway, in the boundary line between lands of Camp Hero Military Reservation on the northeast and lands under the jurisdiction of the United States Air Force (Montauk Air Force Station) on the southwest. Running thence

EXHIBIT "A"

along said Air Force lands the eight (8) following courses and distances: (1) N 34000'00"W 1092.57 feet; (2) N 3503'40"E 1073.22 feet; (3) N 53057'20"W 492.29 feet; (4) S 35059'20"W 787.20 feet; (5) S 53053'00"W 105.51 feet; (6) N 33058'30" W 1419.16 feet; (7) N 67°40'30"E 540 feet more or less; (8) northeasterly and northerly, 913 feet more or less to a point on the southeasterly side of New York State Highway Route No.27; thence northeasterly, along said highway 375 feet more or less to a point 25 feet casterly, measured at right angles from the center line of Access Road "A" leading southerly into the Camp Hero Military Reservation; thence in a general southorly direction, on a line parallel to the center line of said Road "A" and 25 feet easterly therefrom, a distance of .1150 feet more or less to a point 25 feet northerly, measured at right angles from the center line of Access Road "D" as said road leads easterly to Old Montauk Highway; thence easterly, on a line parallel to the center line of said Road "D" and 25 feet northerly therefrom, a distance of 1800 feet more or less to a point opposite the northwesterly side of an existing trail leading southwesterly and southeasterly to Old Montauk Highway; thence crossing said Road "D" and in a general southwesterly and southeasterly direction, along the northwesterly and southwesterly side of said trail, a distance of 1450 feet more or less to the northwesterly side of Old Montauk Highway; thence southwesterly, along the northwesterly side of said highway, a distance of 1800 feet more or less to the point or place of beginning.

Containing in the two above described parcels, a total of 192.25 acres of land, more or less.

	·	ation/Activity/Service)	2. OPER UNIT	ATING	3. DIS- TRIC CODI	T ATING	S, DATE		STANT.		3000000	CONTRACT
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		CAMP HERO MONTAUK POINT, N. Y. SIGN AND RETURN TO: CATTS OF ENGINEERS TO THE DISTRICT, ATTR: TRUPHRYI ACCUSE	ttache Y.C. FING D	,		1 ea. 1 ea. 2 ea. 7 ea.	WD AG WD AG DA Fo WD AG WD AG	From CHTE U.S. Army O Form 5- O Form 5- OF Form 5- OF Form 5- OF Form 5-	Camp Hero, M F, Real Esta Engineer Di 47	ontaul te Di stric	t, New York.
m s	ps, drawings, ntative of the	F COMPLETION: The facilities listed and specifications and change orders using agency except for the deficiency (2002) (2011) DISTATOR ENGLISHED	approved b	y the au	thorized r	STEP	IEIV J	y (Signature)	IR. Capt, U	SAF	DATE
,	1/1/2 4	I. P. SMITH	loor		iarch :	1964 TITLE (Post Eng	Engineer			VOUCHER NUMBER

TRANSFER 192.25 FEE ACRES FROM CAMP HERO TO MONTAUK AIR FORCE STATION (Z-45)

Camp Hero Tract No.	Original Area	Original Cost	Cost Per Acre	Area Transferred	Cost of Transferred Area
5	3.31	\$ 7,000.	\$2,114.80	1.00	\$ 2,114.80
9 A	3.66)	7,000.	1,912.57		-
9B	0.30)			0.30	573•77
11	264.66	93,500.	353.28	30.20	10,669.06
lliA				88.50	31,265.28
П¹В				23.56	8,323.28
12	15.00	3,800.	253.33	10.10	2,558.63
13	121.90	38,000.	311.73	38.59	12,029.66
TOTALS				192 . 25	\$67,534.48

FROM M & D FOLDER

STANDARD FORM 118
DECEMBER 1953
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
REGULATION 2-IV-201.00

REPORT OF EXCESS REAL PROPERTY

1. HOLL AGENCY NO.
NYD-162

DATE RECEIVED (GSA use ont

2. DATE OF REPORT

GSA CONTROL NO. (GSA use only)

3. TO (Furnish address of GSA regional offices)	
General Services Administration Utilization and Disposal Service	
30 Church Street, New York, N.Y.	10007

4. FROM (Name and address of holding agency)
Department of the Army
Washington, D. C,

5. NAME AND ADDRESS OF REPRESENTATIVE TO BE CONTACTED
Maurice Lustig, Chief, Real Estate Division
Department of the Army
New York District, Corps of Engineers,
New York, New York 10003

6. NAME AND ADDRESS OF CUSTODIAN Commanding General 2nd United States Army ATTN: AIABD-EIR

ATTN: AIABD-EIR Fort George G, Meade, Maryland

7. PROPERTY IDENTIFICATION

Camp Hero (Portion - Easements)
Installation No. 2189

8. PROPERTY ADDRESS (Give full location)

Montauk Point Suffolk County, New York

9.		SP	ACE DA	TA			10.	LAND		
USE	NUMBER OF BUILDINGS (1)	FLOOR AF (Sq. ft.		NUMBER OF FLOORS (3)	FLOOR LOAD CAPACITY (4)	CLEAR HEADROOM (5)	(From SF 118b)	ACRE OR SQUARE FEET		
A. OFFICE				1			A. FEE			
B. STORAGE							B. LEASED			
C. OTHER (See 9 F)			***				C. OTHER	1.77		
D. TOTAL (From SF 118a)						1	D. TOTAL	1.77		
E. GOV'T INTEREST: (I) OWNER				F. SPECIFY "	OTHER" USE ENTERED	IN C ABOVE		<u> </u>		
(2) TENANT				1						
11.	OST TO GOVER	NMENT			12. LEASEHOL	D(S) DATA (Use separ	ate sheet if ne	COSSACT)		
ITEM		SCHEDULE		COST	A. TOTAL ANNUAL RE	\$				
A. BUILDINGS. STRUCTURES. AND MISCELLANEOUS FAC	UTILITIES, ILITIES	A (Col d)	\$		B. ANNUAL RENT PER SQ. FT. OR ACRE C. DATE LEASE EXPIRES					
B. LAND		B (Col. f)	6	47,20	D. NOTICE REQUIRED	FOR RENEWAL				
C. RELATED PERSONAL PROP	ERTY	C (Col. h)			E. TERMINAL DATE O	F RENEWAL RIGHTS				
D. TOTAL (Sum of 11A, 11B,	and IIC)		\$ 6	47.20	F. ANNUAL RENEWAL	RENT PER SO. FT. OR	ACRE	s		
E. ANNUAL PROTECTION AN	D MAINTENANC	E COST (Gove	rnmen	t-owned or	G. TERMINATION RIGHTS (in days)					
13. DISPOSITION OF PROCEED	os	-			14. TYPE OF CONSTRU		ERNMENT			
16. HOLDING AGENCY USE					16. RANGE OF POSSIB	LE USES				
Underground cat	ole line	easement	s,							
17. NAMES AND ADDRESSES (

17. NAMES AND ADDRESSES OF INTERESTED FEDERAL AGENCIES AND OTHER INTERESTED PARTIES

18.	REMARKS

The excess property consists of Government-owned easements through privately owned land for underground communication cable which were originally acquired by the Department of the Army to serve harbor defense installations at montauk, Long Island, New York. The easements are reported to General Services Administration for screening purposes.

19. REPORT AUTHORIZED BY Department of the Army	Cont*d
MAURICE LUSTIG	SIGNATURE
Chief, Real Estate Division	Maurice Lusting
,	RINTING OFFICE 16—69840—2

											
GENE	RAL SERVI	CES ADMINISTRAT	TION	I. GSA	REGIONAL OFFICE	-	2. GSA CONTRO		ì		
UTII	LIZATION AN	D DISPOSAL SERVI	CE	2 D-NY-619 3. HOLDING AGENCY NUMBER: 4. TYPE OF APPROVAL REQUIRE							
5.5	TEDUKA	יוסא סב נווסחו	.uc	NYD-162 X A. REGIONAL ONLY							
		ION OF SURPL		5. DATE	REPORT OF EXCE	SS ACCEPTED	A. REGION	AL ONLY	1		
(Excess Re	al Property a	nd Related Person	al Property)		12/15/65		B. CENTRA	L OFFICE & REGIO	NAL		
6. PROPERTY IDENT	IFICATION			7. TYPE	OF DETERMINAT	ION (Check	one)		\dashv		
Camp Here	o (Portio	n-Easements)	•	X 1.	ORIGINAL	☐B. COR	RECTION		ł		
Installa							chec	, C, or D are ked, explain			
Montauk 1	Point, Su	ffolk County	, New York		RESCISSION	D. 0TH	ER . deta	ils in Block 1	1.)		
8. PF	OPERTY DE	TERMINED SURP	LUS.	9.	PROTECTION	AND MAINT	ENANCE OF P	ROPERTY			
A. BUILDINGS.	STRUCTURES.	UTILITIES, AND MIS	C. FACILITIES	A. ANNU	AL COST			\$ None			
USE	NO. BUILDINGS	AREA (Sq. Ft.)	ACQUISITION COST		GSA LIABLE FO						
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(3) OTHER (Specify,			\$	1					Ì		
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(4) TOTAL				1 – 6	AGENCY.	12 2087EC1	TO DISPOSAL BY	THE HOLDING			
LAND	5	1.77	\$ 647.20								
C. RELATED PERSON	AL PROPERTY	(Acquisition Cost)	\$. THE PROPERTY	IS SUBJECT	TO DISPOSAL BY	THE GENERAL	,		
D. GRAND TOTAL A]	SERVICES ADM						
		A(5), B(4) and C).	13 047.20	<u> </u>				·			
11. REMARKS (Use	reverse if s	note space is requ	ired)						-		
10-A S	reened a	gainst known	requirement	s of	Federal ag	encies	pursuant t	:0			
Ex	cess and	Surplus Rea	1 Property,	2-26c	(UDS P 40	000.1).					
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SIGNATURE AND TE		, , , , , , , , , , , , , , , , , , , ,	DATE	SIGNAT	URE AND TITLE			DATE			
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				1	REALTY SP	ECTYFT21		GEC 20			
GSA WASH DC 62-	67 8 8							GSA DECRY	143		

18. Remarks - continued

In addition, in accordance with applicable GSA regulations, General Services Administration is requested to act as Disposal Agency. No Government cable is located within the easement areas.

The cable easements were determined excess to Department of the Army requirements and Title 10, United States Code, Section 2662, does not apply.

The following schedules are attached to and made a part of this Report of Excess:

Schedule B - Standard Form 118b - Land

Schedule C - Easement Tract Descriptions

Schedule D - Report of Title

Schedule E - Final Real Estate Project Map (two sheets)

1. HOLDING AGENCY NO. STANDARD FORM 118b PAGE 1 OF 1 PAGES
OF THIS SCHEDULE DECEMBER 1953 NYD-162 PRESCRIBED BY GENERAL LAND 3. GOVERNMENT INTEREST GSA CONTROL NO. (GSA SERVICES ADMINISTRATION REGULATION 2-1V-201.00 LEASE LICENSE PERMIT X EASEMENT SCHEDULE B-SUPPLEMENT TO REPORT OF EXCESS REAL PROPERTY INFORMAL AGREEMENT FEE **EXCESS REAL PROPERTY** TRACT LINE TRACT NAME OF FORMER OWNER OR LESSOR ACQUIRED TYPE OF RESTRICTIONS ON USE OR TRANSFER OF ACRES OR ANNUAL AND ADDRESS ACQUISITION GOVERNMENT INTEREST NO. NO. (Acres or COST SQUARE FEET RENTAL eq. (t.) (c) (d) (c) (f) (g) (h) (i) (a) (b) EASEMENTS 1 2 20E 0,22 3 Thyrza B, Powler, et al 0,22 75.00 21E Nydia Bruno 0.090.09 80,00 5 0.20 31 E Montauk Beach Co., Inc. 0.30 66.22 6 Montauk Beach Co. 32E Inc 0.63 0.63 208.00 7 Montauk Beach Co. 0.43 0.43 142,38 33E lnc 8 35B Alfred W. Jones . 0.18 0.18 75,00 9 36E Alfred W. Jones 0.02 0.02 Cook included in Tract 358 above 10. 11 TOTALS 1 77 1.77 007 30 12 13 14 15 16 17 18 19 21 22 23 24 25 26 27 28 29 30 31 32 TOTAL

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SCHEDULE "C" - EASEMENT TRACT DESCRIPTIONS

Perpetual easements for the location, construction, maintenance, operation, patrol, replacement and removal of underground communication cable across, through and under the following described easement tracts, situated in the Town of Easthampton, County of Suffolk, State of New York:

TRACT 21E

BEGINNING at a point on the northeasterly boundary time of land of the Mary Benson Estate, said point being N 24° 00' E. 1,925'+ from the northerly sideline of the Montauk Highway; thence N 24° 00' E. 740'+ through land of the grantor to the mean high water line of Block Island Sound.

CONTAINING 0.09 of an acre of land, more or less.

TRACT 20E

AN easement over a certain parcel of land located on the northerly side of Montauk Highway, situated in the Town of Easthampton, County of Suffolk, State of New York, being $2\frac{1}{2}$ feet each side of the following described center line;

BEGINNING at a point on the northerly side line of Montauk Highway, said point being 80 feet, more or less easterly along said side line from the intersection of said side line with the easterly side line of the access road; to Camp Hero at Gate #3 extended; thence north 24° 00'E 1925 feet, more or less to land of Nydia Bruno.

CONTAINING 0.22 of an acre of land, more or less.

TRACT 31E

BEGINNING a a point on the southeasterly boundary of lands nor or formerly of Alfred W. Jones, being Lot 1 in Book 535, as shown on map of the Montauk Beach Development Co., which point is located north 3,484.15 feet and east 10,425.31 feet from USC and G Triangulation Station LOD. Running thence S 41 15'04:4" E, through lands now or formerly of the Montauk Beach Co. Inc., 1458 feet more or less to lands of the United States of America.

CONTAINING 0.20 of an acre of land, more or less.

TRACT 32E

BEGINNING at a point in the northwesterly line of Lot 2 in Block 535 of lands of one Alfred W. Jones, said point being north 4,289.43 feet and east 9,463.78 feet from U.S.C. and G. Triangulation Station LOD; thence crossing

land of the Montauk Beach Co. Inc. north 59 degrees 06 minutes 24.4 seconds west 4,597.63 feet, more or less, to the mean high water line of the Block Island Sound.

CONTAINING 0.63 of an acre of land, more or less.

TRACT 33E

BEGINNING at a point in the northeasterly line of Lot 3 in Block 535 of lands of one Alfred W. Jones, said point being north 4,029.34 feet and east 10,127.19 feet from U.S.C. and G. Triangulation Station LOD; thence crossing lands of the Montauk Beach Co. Inc., the following three courses and distances; (1) north 64 degrees 06 minutes 20.6 seconds east 2,769.34 feet to a point; (2) north 22 degrees 07 minutes 41.6 seconds east 42.54 feet to a point; (3) north 26 degrees 48 minutes 29.6 seconds east 350.80 feet to Site No. 15, lands of the United States of America.

CONTAINING 0.43 of an acre of land, more or less.

TRACT 35E

BEGINNING at the easterly limits of Lot 1, Block 535, the coordinates of said point being north 3,484.15 feet and east 10,425.31 feet from U.S.C. and G. Triangulation Station LOD; thence north 41 degrees 15 minutes 04.4 seconds west 643.62 feet to a point in Lot 3, Block 535, the coordinates of said point being north 3,986.04 feet and east 10,000.93 feet from U.S.C. and G. Triangulation Station LOD; thence north 59 degrees 06 minutes 24.4 seconds west 625.96 feet to the northerly limits of Lot 2, Block 535, the coordinates of said point being north 4,289.43 feet and east 9,463.78 feet from U.S.C. and G. Triangulation Station LOD.

CONTAINING 0.18 of an acre of land, more or less.

TRACT 36E

BEGINNING at a point in Lot 3, Block 535, the coordinates of said point being north 3,986.04 feet and east 10,000.93 feet from U.S.C. and G. Triangulation Station LOD; thence north 64 degrees 06 minutes 20.6 seconds east 140.36 feet to the easterly limits of Lot 3, Block 535, the coordinates of this point being north 4,029.34 feet and east 10,127.19 feet from U.S.C. and G. Triangulation Station LOD.

CONTAINING 0.02 of an acre of land, more or less.

SCHEDULE "D"

REPORT OF TITLE

CAMP HERO, NEW YORK

On the basis of my examination of the real estate audit records of the New York District, Corps of Engineers, New York, I certify that the United States acquired valid title to perpetual easements for the location, construction. maintenance, operation, patrol, replacement and removal of underground communication cable across, through and under approximately 1.46 acres of land at Camp Hero, New York, designated and described in this Report of Excess as Tracts 31E. 32E. 33E. 35E and 36E upon the filing of a Declaration of Taxing in a Condemnation Proceeding, Civil No. 65, entitled: "United States of America, Petitioner. vs. 2.10 acres of land, more or less, situate in the Town of Easthampton, County of Suffolk, State of New York, and R. Stuyvesant Pierrepont, et al, Defendants", in the United States District Court, Eastern District of New York on 28 June 1944, subject to any state of facts that may be disclosed by a physical inspection and by an accurate and adequate survey of the property. I certify also that the United States acquired valid title to perpetual easements for the same purposes specified hereinabove in, over, across and through approximately 0.31 of an acre of land at Camp Hero, New York designated and described in this Report of Excess as Tracts 20E and 21E by the filing of a Declaration of Taking in a Condemnation Proceeding, Civil No. 76 entitled: "United States of America, Petitioner, vs. .22 acres of land, more or less, situate in the Town of Easthempton. County of Suffolk. State of New York and R. Stuyvesant Pierrepont. et a1. Defendants". in the United States District Court, Eastern District of New York on 3 May 1945 and by Easement Deed from Nydia Bruno dated 11 September 1944, and recorded on 21 September 1944 in the land records of Suffolk in Book of Deeds 2390, at Page 485, respectively, subject to any state of facts that may be disclosed by a physical inspection and by an accurate and adequate survey of the property and subject to a reservation in favor of the grantor of easement Tract 21B, her heirs and assigns the right to pass over the premises to the extent that such right does not interfere with the easement.

DATE: 7 December 1965

FRANCIS A. GRANITO Realty Specialist

DEPARTMENT OF THE ARMY NEW YORK DISTRICT, CORPS OF ENGINEERS 111 EAST 16TH STREET NEW YORK, N. Y. 10003

IN REPLY REFER TO NANRE-M

16 December 1965

Long Island State Park Commission Belmont Lake State Park Babylon, Long Island, New York

Gentlemen:

Reference is made to License Agreement dated 27 May 1944, executed by the Executive Secretary of the Long Island State Park Commission, by and between the State of New York, "Licensor", and the United States of America, whereby the Government was granted a license to construct, operate, maintain, renew and remove a subterranean communication cable along and under the right of way and property of the Licensor to serve harbor defense installations at Camp Hero, Montauk, New York. The License Agreement is referred to and designated in the real estate records of this office as Tract 22L, Camp Hero Military Reservation, New York.

Please be advised that the rights granted under said License Agreement are no longer required by the Government and notice is hereby given that effective 17 January 1966, the License Agreement is cancelled.

It is respectfully requested that this Notice of Cancellation be acknowledged by returning the original copy of this letter, appropriately completed as indicated below, for inclusion in the Real Estate Files of this office. The carbon copy of the Notice of Cancellation may be retained for your records.

Sincerely yours,

MAURICE LUSTIG

Chief, Real Estate Division

Cancellation of License Agreement dated 27 May 1944 between the State of New York and the United States of America known as Tract 22L, at Camp Hero Military Reservation, Montauk, New York, is hereby acknowledged.

Dated.

12/20/65

LONG ISLAND STATE PARK COMMISSION

y: Lenglab

EXECUTIVE SECRETARY

Title

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

CONFORMED

QUITCLAIM DEED

THIS INDENTURE, made this 25.7 day of 1966, between the UNITED STATES OF AMERICA, acting by and through the ADMINISTRATOR OF GENERAL SERVICES, under and pursuant to the powers and authority contained in the Federal Property and Administrative Services Act of 1949 (63 Stat. 377) as amended, and Regulations and Orders promulgated thereunder, party of the first part, and MONTAUK BEACH COMPANY, INC., a New York corporation having its principal place of business at Montauk, New York, party of the second part,

WIINESSETH:

That the party of the first part, for and in consideration of the sum of FOUR HUNDRED SEVENTEEN and 20/100 (\$417.20) DOLLARS, lawful money of the United States, paid by the party of the second part, the receipt of which is hereby acknowledged, does hereby remise, release and forever quitclaim unto the party of the second part, its successors and assigns, without representation or warranty, express or implied:

A perpetual easement for the location, construction, operation, patrolling and maintenance of underground cables in and over the following described lands situate at Montauk Point, County of Suffolk, State of New York, being an easement 6 feet in width, the center line of which is described as follows:

TRACT 31E

BEGINNING at a point on the southeasterly boundary of lands now or formerly of Alfred W. Jones, being Lot 1 in Block 535, as shown on map of the Montauk Beach Development Co., which point is located north 3,484.15 feet and east 10,425.31 feet from USC and G. Triangulation Station LOD. Running thence S 41° 15' 04.4" E, through lands now or formerly of the Montauk Beach Co., Inc., 1458 feet more or less to lands of the United States of America, containing 0.20 of an acre of land, more or less.

TRACT 32E

BEGINNING at a point in the northwesterly line of Lot 2 in Block 535 of lands of one Alfred W. Jones, said point being north 4,289.43 feet and east 9,463.78 feet from U.S.C. and G. Triangulation Station LOD; thence crossing land of the Montauk Beach Co., Inc. north 59 degrees 06 minutes 24.4 seconds west 4,597.63 feet, more or less, to the mean high water line of the Block Island Sound, containing 0.63 of an acre of land, more or less.

TRACT 33E

BEGINNING at a point in the northeasterly line of Lot 3 in Block 535 of lands of one Alfred W. Jones, said point being north 4,029.34 feet and east 10,127.19 feet from U.S.C. and G. Triangulation Station LOD; thence crossing lands of the Montauk Beach Co. Inc., the following three courses and

distances; (1) north 64 degrees 06 minutes 20.6 seconds east 2,769.34 feet to a point; (2) north 22 degrees 07 minutes 41.6 seconds east 42.54 feet to a point; (3) north 26 degrees 48 minutes 29.6 seconds cast 350.80 feet to Site No. 15, lands of the United States of America, containing 0.43 of an acre of land, more or less.

TO HAVE AND TO HOLD the premises herein granted, with the appurtenances unto the said party of the second part, its successors and assigns forever.

Said property transferred hereby was duly determined to be surplus, and was assigned to General Services Administratio for disposal pursuant to the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended, and applicable rules, orders and regulations.

IN WITNESS WHEREOF, the party of the first part has caused this instrument to be executed in its name by Arthur Miller, Regional Administrator, Region 2, General Services Administration, who has hereunto affixed his hand and seal the day and year first above written.

In the presence of

UNITED STATES OF AMERICA Acting by and through the ADMINISTRATOR OF GENERAL SERVICES

By 20102/16

PAUL F. CIRILLO

STATE OF NEW YORK)

OUNTY OF NEW YORK)

On this the day of property of the personally appeared Arthur Miller, Regional Administrator, Region 2, New York, General Services Administration, residing at 53-40 Oceania Street, Bayside, New York, to me known and known to me to be the individual described in and who executed the foregoing instrument and to be the Regional Administrator, Region 2, New York, General Services Administration, duly delegated, empowered and authorized by the Administrator of General Services, and who acknowledged that he executed the foregoing instrument for and on behalf of the Administrator of General Services, acting for and on behalf of the United States of America for the purposes and uses therein described.

(Signed) First E. Conillo

Paul F. Clritto
Notary Public - State of New York
No. 30-5699750
Qualified In Nassay County
Cort. filed with the New York Co. Clerk
Commission Expires March 30, 1963

GENERAL SERVICES ADMINISTRATION



UTILIZATION AND DISPOSAL SERVICE 30 Church Street

Region 2

New York, New York 10007

June 15, 1966

IN REPLY REPER TO: 2UR

Mr. Maurice Lustig Chief, Real Estate Division U.S. Army Engineer District, New York Corps of Engineers 111 East 16th Street New York, New York 10003

Dear Mr. Lustig:

Subject: Camp Hero (Portion-Easements)

Installation No. 2189

Montauk Point, Suffolk County, N.Y.

D-NY-619

This will refer to your Report of Excess dated December 9, 1965, submitted on the subject property.

On May 25, 1966, this agency released the Government's right, title and interest in easement Tract Nos. 31E, 32E and 33E to the owner of the underlying fee, the Montauk Beach Co. Inc., Montauk, New York. The purchase price was \$417.20 payable in cash on closing.

In this connection, we enclose a conformed copy of the quitclaim deed used in the transaction.

Sincerely yours,

Albert Wilson

Chief, Real Property Division

Enclosure

G - 10

1 May 1967

CAMP HERO, N. T. - INSTALLATION NO. 2189

Termination by Abandonment, of Permit for Drainage Ditch - Tract 27P

A drainage ditch permit dated 19 July 1943 was obtained from the Estate of Mary Penson, deceased, and Thyrza Benson Fowler. This permit was included in the declaration of excess of subject installation effective 15 July 1960.

During the course of negotiations for termination of the permit, it was ascertained from Manufacturers Hanover Trust Company which company was trustee of the Estate of Mary enson that all of her properties were sold in parcels to various purchasers. It was also ascertained that prior to her death all of Thyrza Tenson Fowler's properties were sold in parcels to various purchasers.

In order to obtain a release from the present land owners, it would be necessary to conduct a time consuming and expensive title search of County Clerk records. In the interest of economy, it is considered in the best interest of the government to drop the permit containing 0.25 of an acre from the records under abandonment as outlined in paragraph 7 af of EP 405-1-101 dated 10 March 1967.

MAURICE LUSTI; Chief, 'eal "state Division LOG/IM-RPB 10264 (4 Oct 68) 3rd Ind SUBJECT: Report of Excess Status, Facility - Camp Hero, Montauk Point, New York

DA, ODCSLOG, Washington, D. C. 20310 30 007 1968

TO: Chief of Engineers, DA, Washington, D. C. 20315

- 1. Report of Excess on subject installation has been reviewed and it is determined that disposal action should proceed.
- 2. This correspondence is forwarded for continuance of action pursuant to applicable laws and regulations. \cdot

FOR THE DEPUTY CHIEF OF STAFF FOR LOGISTICS:

4 Incl nc

CF: CGUSCONARC CG First US Army WILLIAM M. LOCKWOOD

Chief, Installations
Inanagement Division

DEPARTMENT OF THE ARMY SUBMITTED BY OFFICE, CHIEF OF ENGINEERS REAL ESTATE

DISPOSAL REPORT NO. 283

3 0 APR 1969

Submitted pursuant to Title 10, United States Code, Section 2662.

Name of Installation:

Camp Hero, New York

Using Service:

First United States Army

Interest:

Fee

Former Use:

Harbor Defenses

Area:

167.29 Acres

Original Cost:

Land:

\$136,940

Improvements:

64,300

Total:

\$201,240

Land Acquisition Date:

1942

Proposed Action:

Report to General Services Adminis-

tration and transfer to Coast Guard

and a fer the feet of the said of the said

Authority:

Federal Property and Administrative Services Act and 10 U.S.C. 2571(a)

- 1. This statement is submitted for the purpose of reporting to the Committees on Armed Services of the Senate and House of Representatives the facts concerning the proposed disposal of Camp Hero, Montauk, Long Island, New York.
- 2. Camp Hero, located six miles east of Montauk, Long Island, New York, was established in 1942 as a harbor defense installation on 468.69 acres of land acquired in fee for this purpose at a cost of \$241,451. Losser interests were acquired in 3.10 acres of land at a cost of \$853, and 2.24 acres were leased at an annual rental of \$1,350. Camp Hero was determined excess to Army requirements in 1949, was reactivated in 1951 for use as a firing range and field exercise area for Antiaircraft Artillery units in the vicinity of New York, and was inactivated again in 1958. The major portion of the fee land comprising 301.40 acres was transferred to the Department of the Air Force for establishment of the Montauk Air Force Station. The Department of the Army has disposed of all leaseholds as well as other lesser interests, including 1.04 acres of lesser interests which were transferred to the Department of the Air Force. The portion of Camp Hero remaining under the control of the Department of the Army consists of 167.29 acres of land acquired by the United States in fee in 1942 at a cost of \$136,940. Improvements on this area, including three barracks, range facilities

and miscellaneous appurtenances, were constructed at a cost of \$64,300.

- 3. The Department of the Army has retained the remainder of Camp Hero in its inventory of real property pending determination of a possible requirement for the facility for Army Air Defense purposes. It has now been determined that the Army has no need to retain Camp Hero. The Department of the Navy currently utilizes, under permit, a land area of approximately 10,000 square feet, in the northeasterly corner of the reservation, for minor testing facilities, and maintains an electric transmission line 1,160 feet long to serve the facility area. Although the Department of the Navy does not consider this use sufficiently substantial to merit obtaining possession of the property by transfer, that Department desires to continue the use for an indefinite period. Since neither the Department of the Navy nor the Department of the Air Force desires to acquire any portion of Camp Hero which remains with the Department of the Army, the property has been determined excess to the needs of the Department of Defense.
- 4. The Department of the Army proposes to report the real property constituting Camp Hero to the General Services Administration for disposal as excess property. However, the United States Coast Guard, Department of Transportation, has indicated a possible need for approximately 64.33 acres of the installation. If a request therefor is received, and is approved by the Department of Defense, the Department of the Army will transfer this area to the Coast Guard, and report the remainder of Camp Hero to the General Services Administration. The report of excess will be subject to reservations (1) of continued indefinite use by the Navy of the testing facility area and the right to operate and maintain the electric transmission line to service the facility area, together with all necessary access rights thereto; and (2) of easement interests for utility lines, height restriction and access for the benefit of the adjacent Montauk Air Force Station.
- 5. This disposal action has been approved by the Assistant Secretary of Defense (Installations and Logistics).

DECEMBER 1963
PRESCRIBED BY GENERAL
SERVICES ADVINISTRATION
REGULATION 2-IV-201.00
1105-108

REPORT OF EXCESS EAL PROPERTY

MYD-236A***
L DATE C FORT 10 h / 1972

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General Servic Property Manag 26 Federal Pla	ement & D za .	stration isposal	Serv	Department of the Army Washington, D. C.								
New York, N. Y	_ L0007											
5. NAME AND ADDRESS OF RI	EPRESENTATIVE	TO BE CONTAC	TED D	duicion	6. NAME AND ADDRESS OF CUSTODIAN							
MAURICE LUSTIG, Department of the New York Distriction	he Armv	eal Esta	Le D	TATRION	Commande							
New York Distri	ct, Corps	of Engi	neer	's	Fort Ham							
26 Federal Plaz	a, New Yo	rk, N. Y	. 10	007	Brooklyn	, New York						
7. PROPERTY IDENTIFICATIO	N				8. PROPERTY ADDRESS	(Give full location	1)					
Camp Hero, New	York Inst	. No. 21	.89		Suffolk	County, Mon	tauk Poin	t.				
(portion)					New York	• •		•				
(POT 1101)												
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AND MISCELLANEOUS FAC	ILITIES	A (Col d)	\$ 55	5,800.00	C. DATE LEASE EXPIRE	<u> </u>						
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This Correction Report of Excess, NYD-236A is submitted for the purpose of revising the description of the excess area previously submitted on Report of Excess, NYD-236 dated 15 August 1972 and certain facts and statistics as therein delinested.

•	19. REPORT AU	THORIZED BY DEP	ARIMENT OF	THE ARMY		**	36
	NAME				SIGNATURE		
	· ·	MAURICE LUS	STIG	* 14.5			J
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18. Remarks (Continued)

The installation is presently comprised of 167.29 acres of land in fee, acquired at a cost of \$136,940.09.

The entire area is excess to Department of the Army requirements and will be disposed of as follows:

- a. Approximately 6.25 acres of land in fee, together with improvements, will be transferred to the Department of the Air Force.
- b. Approximately 41.78 acres of land in fee, together with improvements, will be transferred to the Department of Transportation (United States Coast Guard).
- c. Approximately 119.26 acres of land in fee is excess to Department of Defense requirements and is reported to General Services Administration for disposal.

In any disposal of the excess property by GSA, the deed of conveyance should contain reservations for approximately 26.39 acres of land in easement interests required by the Department of the Air Force for utility lines, sewage outfall, height restrictions and access for the benefit of the adjacent Montauk Air Force Station. A description of easement areas required are contained in Exhibit "C" attached hereto and made part hereof.

The excess property has been screened against known defense needs of the Department of Defense with negative results, except for the areas required by the Department of the Air Force and Department of Transportation (United States Coast Guard).

The disposal action has been approved by the Assistant Secretary of Defense (Installations and Logistics) and a Disposal Report was submitted to the Congressional Armed Services Committees on 30 April 1969, pursuant to Title 10, United States Code, Section 2662.

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The following exhibits are made a part of this Report:

Schedule B - Standard Form 118b- Land

Schedule C - Perimeter Description

Schedule D - Final Project Map

Schedule E - Report of Title

DEPARTMENT OF THE ARMY WASHINGTON, D.C. 20310

26 DEC 1972

THE RESERVE THE PARTY OF THE PA

MEMORANDUM FOR: SECRETARY OF THE AIR FORCE

SUBJECT: Transfer of a Portion of Camp Hero, Montauk Point, New York

Pursuant to your request and by direction of the Assistant Secretary of Defense (Installations and Housing), there are hereby transferred to the Department of the Air Force, without reimbursement, approximately 6.25 acres of land, with improvements, comprising a portion of Camp Hero, Montauk Point, New York. The property transferred is more particularly described in the attached transfer assembly.

The authority for this transfer is Title 10, U.S.C., Section 2571(a).

The requirements of Title 10, U.S.C., Section 2662, as amended, have been met.

('Signed)'

Kenneth E. BeLiett

Acting Secretary of the Army.

l Incl Transfer Assembly

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The UNITED STATES OF AFFRICA, acting by and through the Regional Director,

Now theast Region, Bureau of Outdoor Recreation, with offices at 600 Arch Screet,

Philadelphia, Pennsylvania, pursuant to authority delegated by the Secretary of the

Interior, and as authorized by the Federal Property and Administrative Services Act

of 1949 (63 Stat. 377), as amended, and particularly as amended by Public Law 91-485

(84 Stat. 1084), and regulations and orders promulgated thereunder (hereinafter referred

to as Grantor), for and in consideration of the use and maintenance of the property

herein conveyed for public park or public recreation purposes in perpetuity by the

State of New York, with offices at South Swan Street Building, South Mall, Albany,

New York (hereinafter referred to as Grantee), does hereby remise, release, and quit
claim to Grantee, its successors and assigns, subject to the reservations, exceptions,

restrictions, conditions, and covenants hereinafter set forth, all right, title, and

interest of the Grantor in and to the following described property situated at Montauk

Touner Cast Hartered

Point, A County of Suffolk, State of New York, and more particularly described as follows:

TRACT NO. 1

BEGINNING at a point in the southeasterly boundary line of the Camp Hero Military Reservation, having coordinates N 313,054.15 and E 2,589,754.70 in the Long Island Lambert System, as shown on Map File FNY 19, Montauk Point, L.I., N.Y., Property Survey General Map dated April 1941 as Corner No. 33, running thence more or less along the high water line of the Atlantic Ocean the following eight (8) courses and distances: (1) S \(\frac{1}{3}\)° O9' 31" W, 735.67 feet; (2) S 56° 59' 2\(\frac{1}{3}\)" W, 953.25 feet; (3) S 27° O5' O2" W, 350.16 feet; (4) S 68° \(\frac{1}{3}\)" W, \(\frac{1}{3}\)" W, \(\frac{1}{3}\)" W, \(\frac{1}{3}\)" Feet; (5) S 28° \(\frac{1}{3}\)" W, \(\frac{1}{3}\)" W, \(\frac{1}{3}\)" W, \(\frac{1}{3}\)" S 76° 52' \(\frac{1}{3}\)" W, \(\f westerly boundary of the Camp Hero Military Reservation, 1090.35 feet to Corner No. 42 on the southerly side of Old Montauk Highway, as shown on the above mentioned map, File No. FN; 19, dated April 1941; thence along the southerly right of way of said highway, 820 feet, more or less, to the westerly boundary of lands proposed for transfer to the U.S. Air Force as Well Site No. 5; thence along the boundary of said Well Site the following courses and distances: \$ 16° 53' 25" E, 110.88 feet; N 73° 06' 35" E, 150 feet; N 16° 53' 25" W, 110.88 feet to the southerly right of way of Old Montauk Highway; running thence along said southerly right of way of Old Montauk Highway, 2250 feet, more or less, to the westerly boundary of Tract No. 7 in the Camp Hero Military Reservation as extended southeasterly; running thence N 25° 12' 16" W, 50 feet, more or less, to the northerly right of way of Old Montauk Highway; thence N 25° 42' 16" W, 365.09 feet to the northwesterly boundary of said Tract No. 7; thence N 29° 39' 58" W, 199.12 feet along the southwesterly boundary of Tract No. 6 to the easterly side of an existing trail, said point having coordinates N 312,953.21 and E 2,588,365.04 in the Long Island Lambert Coordinate System; running thence north and easterly along the easterly side of said existing, trail 600 feet, more or less, to the southerly side of Access Road "D"; thence N 420 30' W, 50 feet, more or less, to the northerly side of

REAL USTATE TO STATE OF A TRANSFER TAX CHEW YORK + Lautica octions = 00.00 + 16 autica octions = 16 autica octions

Access Road "D"; thence along said northerly side of Access Road "D" and along lands proposed for transfer to the U.S. Coast Guard the following courses and distances: S 60° 00° E, 110 feet; S 80° 00° E, 280 feet; N 81° 20° E, 180 feet to the northerly right of way of Old Montauk Highway; running thence S 57° 30° E, 590 feet to the point of beginning.

This tract contains 72.14 acres of land, more or less, and was formerly a portion of Camp Hero Military Reservation as designated on Department of the Army, Real Estate Final Project Map, File No. NED-PA-671 (Sheet 1 of 2), dated February 1947.

TRACT NO. 2

BEGINNING at a point in the southerly side of the right of way of New York State Route 27, said point being 100 feet distant from the centerline of Access Road "A" leading southerly into the Camp Hero Military Reservation; running thence east along the southerly side of said right of way of Route 27 a distance of 150 feet to an iron pipe; thence along the southerly side of said right of way 563.8h feet to a concrete monument; thence S 70° 18' 3h" E, a distance of 525.23 feet to a concrete monument set in the southerly right of way of Route 27; thence along a left curve of a circle whose radius is 205.99 feet, a distance of 72.61 feet to a point on a concrete monument which is S 17° 50' 19" E, a distance of 72.23 feet on the chord thereof; thence along a right curve of a circle whose radius is 345.09 feet, a distance of 116.38 feet to a point on a concrete monument which is S 18° 16' 31" E, a distance of 115.83 feet on the chord thereof; thence S 43° 21' 19" E, a distance of 634.47 feet to a concrete monument located on the U.S. Government property line; thence S 71° 59' 16" W, 41.6 feet; thence S 03° 45' W, 390 feet to a point; thence N 69° 45' E, 330 feet to a point in the easterly side of Access Road "D"; running thence westerly along the northerly side of Access Road "D"; running thence westerly along the northerly side of Access Road "D", 1550 feet to a point 25 feet northerly measured at right angles to the centerline of Access Road "D" and its intersection with Access Road "A"; thence in a northerly direction 1180 feet to the point of beginning.

This tract contains 47.12 acres of land, more or less, and is also known as Tract No. 1-C and Tract No. 14-A in the Camp Hero Military Reservation.

The property herein conveyed contains 119.26 acres, more or less, and was formerly a portion of Camp Hero, Installation No. 2189, D-NY-692, under the administrative jurisdiction of the Department of the Army, an agency of the United States Government.

TOGETHER WITH the appurtenances and improvements thereon and all the estate and rights of the Grantor in and to said premises.

SUBJECT TO an agreement between the New York Telephone Company and the United States of America for the maintenance and operation of an existing telephone cable line running along and under Old Montauk Highway, Montauk Point, New York.

SUBJECT TO any and all outstanding reservations, easements, and rights-of-way, recorded and unrecorded, for public roads, railroads, pipelines, drainage ditches, water courses, sewer mains and lines, and public utilities affecting the property herein conveyed.

TO HAVE AND TO HOLD the above premises, subject to the easements, reservations, exceptions, restrictions, conditions, and covenants herein enumerated and set forth, unto the Grantee, its successors and assigns, forever.

There are excepted from this conveyance and reserved to the Grantor all oil, gas, and other minerals in, under, and upon the lands herein conveyed, together with the right to enter upon the land for the purpose of mining and removing the same.

The Grantor also reserves a restrictive easement over a 2h.79-acre tract of land between the Old Montauk Highway and the Atlantic Ocean, and as hereinafter described to minimize interference with reception of signals by the "ALRI" installation. No structure situated on the property hereinafter described shall exceed elevation 95 M.S.L. and structures shall be of non-metallic outer surface. The property subject to this restrictive easement is more particularly described as follows:

Beginning at a point in the centerline of the Right-of-Way of Old Montauk Highway known as Point 36, having co-ordinate values of N 310,955.80 and E 2,586,910.75 in the Long Island Lambert System as established by the Coast and Geodetic Survey in this area, and shown on Map File FNY 19 dated April 1941; thence S 01° 06' 37" W, 35.51 feet to Corner No. 1 which is on the southerly side of the Right-of-Way of Old Montauk Highway, said point being the true point of beginning; running thence N 69° 25' 3h" E along the southerly side of said Right-of-Way, 176.53 feet; thence N 64° 31' 38" E, along the southerly side of said Right-of-way, 112.94 feet; thence N 59°. 1h' 35" E along the southerly side of said Right-of-Way, 245.18 feet; thence N 42° 29' 35" E along the southerly side of said Right-of-Way, 127.00 feet; thence 90° 00' 00" E, 695.48 feet to a point on the top of cliff on the ocean's edge. Thence S 06° 41' 22" W, 2.85 feet to Corner 37 of the survey of 1942, FNY 19; thence S 280 41' 43" W, 590.10 feet to Corner 38 of the said 1942 survey; thence S 520 50' 20" W, 303.57 feet to Corner 39 of said 1942 survey; thence 5 76° 52' 14" W, 408.82 feet to Corner 40 of said 1942 survey; thence S 39° 13' 54" W, 980.52 feet to Corner 41 of said 1942 survey; thence N 39° 36' 32" W, 395.17 feet along the westerly boundary line as established in 1942 survey; thence N 30° 00' 00" E, 1066.41 feet to a point on the southerly side of the Right-of-Way of Old Montauk Highway; thence S 670 12' 19" E, along the southerly side of said Right-of-Way, 3.68 feet to Corner 1, containing 24.79 acres, more or less.

There is further reserved to the Grantor an easement for a sewage outfall line between Old Montauk Highway and the Atlantic Ocean to insure continued discharge of treated effluent from the sanitary sewage system to the ocean in, on, over, under, and across the following described property:

Beginning at a point in the center line of the right-of-way of Old Montauk Highway known as point C having co-ordinate values of N 312,110.24 and E 2,588,342.95 in the Long Island Lambert System as established by the Coast and Geodetic Survey in this area, and shown on Map File FNY 19 dated April 1941 thence S 25° 00' 00" E, 40.70 feet to a point (corner 1) on the southerly side of the right-of-way of Old Montauk Highway, said point being the point of beginning; running thence east along the southerly side of the right-of-way of said highway along a curve to the right 90.08 feet having a radius of 855.12 feet, thence east along the southerly side of the right-of way of said highway along a curve to the right 56.99 feet, having a radius of 855.12 feet, thence east along the southerly side of said highway along a curve to the right 82.13 feet, having a radius of 855.12 feet, thence S 25° 00' 00" E, 238 feet to the shore of the Atlantic Ocean, thence S 42° 14' 59" W, 216.87 feet, along the shore of the Atlantic Ocean, thence N 25° 00' 00" W, 211.30 feet to Corner 1, containing 1.6 acres, more or less.

Pursuant to authority contained in the Federal Property and Administrative Services Act of 1949, as amended, and applicable rules, regulations and orders promulgated thereunder, the General Services Administration determined the property to be surplus to the needs of the United States of America and assigned the property to the Department of the Interior for conveyance to the State of New York.

It is understood and agreed by and between the Grantor and Grantee, and Grantee by acceptance of this deed does acknowledge that it fully understands the terms and conditions set forth herein and does further covenant and agree for itself, and its successors and assigns, forever, as follows:

- 1. The property shall be used and maintained for the public purposes for which it was conveyed in perpetuity as set forth in the program of utilization and plan contained in the application submitted by Grantee on the 3rd day of October, 1972, which program and plan may be amended from time to time at the request of either the Grantor or Grantee, with the written concurrence of the other party, and such amendments shall be added to and become a part of the original application.
- 2. The Grantee shall within 6 months of the date of this deed erect and maintain a permanent sign or marker near the point of principal access to the conveyed area indicating that the property is a park or recreational area and has been acquired from the Federal Government for use by the general public.
- 3. The property shall not be sold, leased, assigned, or otherwise disposed of except to another eligible governmental agency that the Secretary of the Interior agrees in writing can assure the continued use and maintenance of the property for public park or public recreational purposes subject to the same terms and conditions in the original instrument of conveyance. However, nothing in this provision shall preclude the Grantee from providing related recreational facilities and services compatible with the approved application, through concession agreements entered into with third parties, provided prior concurrence to such agreements is obtained in writing from the Secretary of the Interior.
- In From the date of this conveyance, the Grantee, its successors and assigns, shall submit biennial reports to the Secretary of the Interior, setting forth the use made of the property during the preceding two-year period, and other pertinent data establishing its continuous use for the purposes set forth above, for ten consecutive reports and as further determined by the Secretary of the Interior.
- 5. If at any time the United States of America shall determine that the premises herein conveyed, or any part thereof, are needed for the national defense, all right, title, and interest in and to said premises, or part thereof determined to be necessary to such national defense, shall revert to and become the property of the United States

of America.

- 6. As part of the consideration for this deed, the Grantee covenants and agrees for itself, its successors and assigns, that (1) the program for or in connection with which this deed is made will be conducted in compliance with, and the Grantee, it: successors and assigns, will comply with all requirements imposed by or pursuant to the regulations of the Department of the Interior as in effect on the date of this deed (43 C.F.R. Part 17) issued under the provisions of Title VI of the Civil Rights Act of 1964; (2) this covenant shall be subject in all respects to the provisions of said regulations; (3) the Grantee, its successors and assigns, will promptly take and continue to take such action as may be necessary to effectuate this covenant; (4) the United States shall have the right to seek judicial enforcement of this covenant; (5) the Grantee, its successors and assigns, will (a) obtain from each other person (any legal entity), who, through contractual or other arrangements with the Grantee, its successors or assigns, is authorized to provide services or benefits under said program, a written agreement pursuant to which such other persons shall, with respect to the services or benefits which he is authorized to provide, undertake for himself the same obligations as those imposed upon the Grantee, its successors and assigns, by this covenant, and (b) furnish a copy of such agreement to the Secretary of the Interior, or his successor; and that this covenant shall run with the land hereby conveyed, and shall in any event, without regard to technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law and equity for the benefit of, and in favor of the Grantor and enforceable by the Grantor against the Grantee, its successors and assigns.
- 7. In the event there is a breach of any of the conditions and covenants herein contained by the Grantee, its successors and assigns, whether caused by the legal or other inability of the Grantee, its successors and assigns, to perform said conditions and covenants, or otherwise, all right, title and interest in and to the said premises shall revert to and become the property of the Grantor at its option, which in addition to all other remedies for such breach shall have the right of entry upon said premises, and the Grantee, its successors and assigns, shall forfeit all right, title and interest in said premises and in any and all of the tenements, hereditaments and appurtenances thereunto belonging; provided, however, that the failure of the Secretary of the Interior to require in any one or more instances complete performance of any of the conditions or covenants shall not be construed as a waiver or relinquishment of such future performance,

but the obligation of the Grantce, its successors and assigns, with respect to such future performance shall continue in full force and effect:

IN WITNESS WIENFOF, the Grantor has caused these presents to be executed in its name and on its behalf this the UNITED STATES OF AMERICA Denuty Regional Director Northeast Region Bureau of Outdoor Recreation 600 Arch Street Philadelphia, Pennsylvania On this , before me, the day of subscriber, personally appeared (). the United States Department of the Interior, a governmental agency of the United States of America, with offices at 600 Arch Street, Philadelphia, Pennsylvania, and known the me to be the same person described in and who executed the foregoing instrument as such Regional Director aforesaid, as the act and deed of the United States of America, for and on behalf of the Secretary of the Interior, duly designated, empowered and authorized so to do by said Secretary, and he acknowledged that he executed the foregoing instrument for and on behalf of the United States of America, for the purposes and uses therein described. My Commission Felick hotaly public PHILADELPHIA, PHILADELPHIA COUNTY MY COMMISSION EXPORES OCT. 13, 1975 Member, Pergeytranta, especiation of Hotaries The foregoing conveyance is hereby accepted and the undersigned agrees, by this acceptance, to assume and be bound by all the obligations, conditions, covenants and agreements therein contained. outh Swan Steet Bulling APPROVED:

STATE OF Price York COUNTY OF althory

LINE FRANK INCHES

day of Charge of of the State of New York, to me known personally came I to be the individual described in, and the executed the foregoing instrument and acknowledged that he executed the same in the capacity as aforesaid, for the purposes therein mentioned.

DOLORES S. NOLAN DOLOTRES 5. NOLAN
Notary Pichic, State of Hew York
Qualified in Albany County
Commission Expires March 10, 18
Number 8152820

APPROVED AS TO FORM AND MANNER OF EXECUTION LOUIS J. LEFKOWITZ

Edward R amond

In the Court of Common Pleas of Philadelphia County

Common wealth
of Pennsylvania

Common wealth

.... JULY .. In the year of our Lord AMERICO V. CORTESE, Prothonotary,

UNITED STATES OF AMERICA

GRANTOR

TO

STATE OF NEW YORK

GRANTEE

DEED

JULY 18, 1974

NECORDED

LEGIS 131 131 A

RECORD AND RETURN TO

LONG ISLAND STATE PARK LROCKEATION CONNISSION

BORKUNT LAKE STATE PARK BARYLON, NEW YORK 11702

LAT' HE WILLIAM DELANEY



SECRETARY OF THE ARMY WASHINGTON

1 6 SEP 1974

Honorable Claude S. Brinegar Secretary of Transportation Washington, D. C. 20590

Dear Mr. Secretary:

Pursuant to the request from the Commandant, United States Coast Guard and under authority contained in Title 10, United States Code, Section 2571 (a), the Department of the Army hereby transfers, without reimbursement, approximately 5.00 acres of land, in fee, together with all improvements located thereon, a portion of Camp Hero, Montauk Point, New York, as described in Exhibit "A," shown in green on map marked Exhibit "B," each attached hereto and made a part hereof to the Department of Transportation for use by the United States Coast Guard.

The requirements of Title 10, United States Code, Section 2662, as amended, have been met.

Sincerely,

Howard H. Callaway

2 Incl Secretary of the Army As stated

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SUPPLEMENTAL DATA ..

In connection with this transfer, the following other data is furnished: :

- a. The effective date of transfer of the property to the Department of Transportation (United States Coast Guard) will be the date of execution of the Transfer Instrument.
- b. The property herein transferred to the Department of Transportation (United States Coast Guard) is subject to the following:
- (1) Subject to all silver and gold deposits reserved to the State over lands originally acquired from it by deed or patent.
- (2) Subject to existing easements for public utilities, railroads and pipelines...
- (3) Subject to all interests outstanding which do not interfere with the rights, power and privileges granted to the United States.
 - (4) Subject to all existing outgrants of record. .
- (5) Subject to any state of facts that may be disclosed by a physical examination of the property,
- (6) Subject to any state of facts that an accurate and adequate survey of the premises may disclose.
- c. The New York District, Corps of Engineers, upon receipt of a copy of the executed Transfer Instrument, will request Headquarters, Fort Hamilton through Headquarters, FORSCOM to transfer physical possession and accountability of the property to the Department of Transportation (United States Coast Guard). DD Form 1354, Transfer and Acceptance of Military Real Property, will be utilized to accomplish the transfer of the said real property.
- d. Original title documents pertaining to the property herein transferred are located in the Office, Judge Advocate General, Washington, D.C., copies of which are required to be retained in the Audit records of the District Engineer, New York District, Corps of Engineers 26 Federal Plaza, New York, New York, as part of the permanent historical records.
- e. A description of the land is contained in attached Exhibit "A" and shown colored in green on Final Project Map attached herein as Exhibit "B".

- f. The land herein transferred is owned in fee by the United States of America.
- g. No removal or site restoration will be required since no timber, sand or graval or other similar separable property is involved...
- h. The 5.00 acres of land at Camp Hero, herein transferred to the Department of Transportation (United States Coast Guard) is a portion of the original reservation acquired by condemation proceedings entitled "United States of America vs 468.678 acres of land, more or less, situate in Suffolk County, State of New York and Helen H. Brown, et al, defendants, Declaration of Taking, Civil No. M-627 filed 13 January 1942". The 5.00 acres of fee-owned land was acquired by the Government at a pro-rata cost of \$4.092.90.
- i. This instrument effecting the transfer of Army owned land is required to be executed by the Secretary of the Army or his designee...
- j. Requirements for reimbursement for utility services, if any, affecting the area herein transferred will be determined between the Department of the Army, Air Force and Transportation (United States Coast Guard) upon consummation of this transfer.
- k. The land included in this transfer was not reported to General: Services: Administration.
- 1. Other appropriate information: Not applicable.

CAMP HERO

METES AND BOUNDS DESCRIPTION ::

EXHIBIT "A"."

PROPERTY DESCRIPTION ...

All that tract or parcel of land situate in the Camp Hero Military Reservation, County of Suffolk, State of New York and more particularly described as follows:

BEGINATES at a point having coordinates N 314,100 and E 2,589,900 in the Long Island Lambert System as established by the USC & GS as shown on Drawing No. 03-5311, U.S. Coast Guard, 3rd District, dated 10-5-73, said point being the point of beginning of the herein described premises; thence running due south 600 feet to a point whose coordinates are N 313,500 and E 2,589,900; thence due west 300 feet to a point whose coordinates are N 313,500 and E 2,589,600; thence due north 225 feet to a point whose coordinates are N 313,725 and E 2,589,600; thence due west; crossing Old Montank Highway, 245 feet to a point whose coordinates are N 313,725 and E 2,589,355; thence due north 150 feet to a point whose coordinates are N 313,875 and E 2,589,355; thence due east crossing to Old Montank Highway 245 feet to a point whose coordinates are N 313,875 and E 2,589,600; thence due north 225 feet to a point whose coordinates are N 314,100 and E 2,589,600; running thence due east a distance of 300 feet to the point of beginning:

CONTAINING in all 5.0 acres-or land more or less....

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DEPARTMENT OF TRANSPORTATION **UNITED STATES COAST GUARD**

MAILING ADDRESS (G-FLP-3/71) U.S. COAST GUARD WASHINGTON, D.C. 20590 PHONE:202-426-2030

11011/pc

2 9 AUG 1977

.Mr. Maurice Lustig Chief, Real Estate Division Department of the Army Corps of Engineers, New York District 26 Federal Plaza New York, NY 10007

Dear Mr. Lustig:

On 11 August 1977, the General Services Administration effected the transfer of approximately 1.29 acres of unimproved land in fee to the U.S. Coast Guard. The property is more specifically defined as being a portion of the former Camp Hero, Montauk, New York.

It is requested that your Department effect the transfer of custody and accountability of the property to this Service. The inclusion of the muniments of title to the property is also desired. It is further requested that this information be forwarded to Commandant (G-FLP-3/71), U.S. Coast Guard, by 19 September 1977.

Thank you for your cooperation in this matter.

Sincerely,

K. H. CARY, JR

Assistant Orief Logictics and Property Division

Office of the nometreller

By direction of the Commandant

K.M. Can A.

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2 6 JUN 1978

MEMORANDUM FOR THE SECRETARY OF THE NAVY

SUBJECT: Transfer of 17.40 Acres Fee from the Department of the Army to the Department of the Navy at Camp Hero, Montauk Point, New York

Pursuant to the provisions contained in Title 10, United States Code, Section 2571 (a), the Department of the Army hereby transfers to the Department of the Havy without reimbursement, approximately 17.40 acres of vacant land in fee comprising a portion of Camp Hero, Montauk Point, New York. The property transferred is more particularly described and delineated in the attached transfer assembly.

The requirements of Title 10, United States Code, Section 2662, as amended, have been met.

l Inclosure Transfer Assembly Clifford L. Alexandor, Jr. Secretary of the Army

Cyford C. Olexander &.

EXHIBIT "A" PERIMETER DESCRIPTION CAMP HERO, NEW YORK

All that tract or parcel of land situate in the Camp Hero Military
Reservation, County of Suffolk, State of New York and more particularly
described as follows:

Beginning at a point that is 861 feet distant from, and southeasterly of a concrete monument on the southerly R.O.W. line of State Hwy. No. 27, said monument being located at coordinates N 314,763.25, E 2,588,441.99 and further identified as Cor. No. 9, on a map entitled Montauk Point, L.I., N.Y. - Property Survey - General Map, by United States Engineer Office, New York District, N.Y., Date of Survey, April 8 - 10, 1941; said point of beginning more specifically being the following four (4) courses and distances from the aforementioned concrete monument: (1) 72.61 feet along an arc curving to the left, having a radius of 205.99 feet, the chord distance being 72.23 feet on a bearing of S 17° 50' 19" E to a concrete monument; thence (2) 116.38 feet along an arc curving to the right, having a radius of 345.09 feet, the chord distance being 115.83 feet on a bearing of S 18° 16' 31" E to a concrete monument; thence (3) S 430 21' 19" E, a distance of 634.47 feet to a concrete monument; proceeding thence (4) S 43° 21' 19" E, a distance of 37.54 feet to the true point of beginning located at coordinates N 314,095.88, E 2,588,961.79 proceeding thence 18.59 feet along an arc curving to the right having a radius of 250.51 feet, the chord length being 18.59 feet on a bearing of N 19° 19' 16''E to a point; thence 104.24 feet a'ong an arc curving to the right having a radius of 257.37 feet, the chord length being 103.26 feet on a bearing

of N 280 47' 29" E to a point; thence 446.84 feet along an arc curving to the right of 772.87 feet radius, the chord length being 440.63 feet on a bearing of N 56° 57' 26'' E to a point; thence N 73° 31' 12'' E, a distance of 84.11 feet to a point; thence N 30° 32' 33" E, a distance of 117.97 feet to a point; thence 91.55 feet along an arc curving to the right having a radius of 2,288.56 feet, the chord length being 91.53 feet on a bearing of N 310 41' 18" E to a point; thence S 570 09' 57" E, a distance of 33 feet more or less to a 3/4" pipe; thence 311.88 feet along an arc curving to the left having a radius of 2,532.77 feet, the chord length being 311.70 feet on a bearing of N 68° 24' 35" E to a 3/4" pipe; thence 350.60 feet along an arc curving to the left having a radius of 681.10 feet, the chord length being 346.74 feet on a bearing of N 50° 08' 05" E to a 3/4" pipe that is located at coordinates N 314,966.58, E 2,590,159.42 in the Long Island Lambert Plane Coordinate System; proceeding thence N 38° 22' 25" W, a distance of 104.93 feet to a 3/4" pipe; thence N 32° 29' 51" E, a distance of 52.73 feet to a 3/4" iron pipe; thence S 38° 22' 25" E, a distance of 105.85 feet to a 3/4" pipe; thence N 32° 29' 40" E, a distance of 34.69 feet to a 3/4" pipe; proceeding thence 131.60 feet along an arc curving to the right having a radius of 257.39 feet, the chord length being 130.17 feet on a bearing of N 47° 08' 30" E to a concrete monument; proceeding thence 108.81 feet along an arc curving to the right having a radius of 752.36 feet, the chord length being 108.71 feet on a bearing of N 65° 55' 55''E to a concrete monument at coordinates N 315,172.46, E 2,590,401.63 proceeding thence S 22° 19' 15" E, a distance of 300.0 feet to a 3/4" pipe; thence \$ 220 19' 15" E, a distance of 106.68

feet to point on the High Water Line of the Atlantic Ocean: thence proceeding along said High Water Line the following two (2) courses; (1) S 44° 31' 27" W, a distance of 420.41 feet to a point; thence (2) S 09° 02' 10" W, a distance of 420.00 feet to a point; thence departing said High Water Line and proceeding westerly a distance of 296 feet more or less, to a point at coordinates N 314,100, E 2,589,900, being the northwesterly corner of a parcel of land transferred to the Department of Transportation (United States Coast Guard) proceeding thence, due west, along said lands a distance of 300 feet to a point at coordinates N 314,100, E 2,589,600; thence departing said U.S.C.G. lands and proceeding westerly a distance of 638 feet to the point of beginning The coordinates referred to in the above description are based on the Lambert Conformal Conic Projection for rectangular coordinates on Long Island, New York.

Containing 17.4 acres of land, more or less.

TRANSFER AND ACC	;	MILITAR	Y REAL P	ROPERT	r		PAGE 1 0	F] PAGE
Facility Engineer Ft Hamilton Brooklyn, New York 11252	2. OPERATING UNIT	3. DIS- TRICT COOK	4. OPER- ATING AGENCY	10-7-	78	ASEMUN BOL.	7. SERIAL NUMBER	S. CONTRACT NUMBER
•. To: (metaliation/Activity/Service) and Zip code) Commanding Officer Naval Submarine Base New London Groton, Connecticut 06340	10, OPERATING	II. DISTRICT	12, OPER- ATING AGENCY	19, AC- COUNTING NUMBER	14, AC- GOUNT- ABLE OFFICE NUMBER	NEW CONSTI	PHYSIC/	
HO: CODE + D (Category description)	HO. OF TYPE	UNIT OF MEAS. 22	TOTAL QUARTITY 23		COST 24	DRAWIN NUMBE	1 06	EMARKS
Note: To Transfer 17.4 acres (land only) at Camp Hero, N.Y bursement to Department of the Authority: By Secretarial Transfer 10 United States Code Secretary of the Army to	e Navy. ansfer, freetary of the conscion 2571	om ne Navy ned in (a)	17.40	756 ax (b)	N/A			624.0H 345.8W (017.005.02.80)
T. STATEMENT OF COMPLETION: The facilities listed he maps, drawings, and specifications and change orders app sentative of the using agency except for the deficiencies of the manufacture of the using agency except for the deficiencies of the manufacture of the using agency except for the deficiencies of the manufacture of the manufact	roved by the author	orized repre-	Command	HATTHEW ding Of at Bogn/Ba	5, By d ficer	irection of	26. PR	MOPERTY HER NUMBER

The UNITED STATES OF AMERICA, hereinafter referred to as Grantor, acting by and through the Acting Regional Director, National Park Service, Mid-Atlantic Region with offices at 143 Third Street, Philadelphia, Pennsylvania, pursuant to authority delegated by the Secretary of the Interior, and as authorized by the Federal Property and Administrative services act of 1949 (63 Stat. 377), as amended, and particularly as amended by Public Law 91-485 (84 Stat. 1084), and regulations and order promulgated thereunder, for and in cosideration of the use and maintenance of the property herein conveyed exclusively for public park or public recreation purposes in perpetuity by the Cloud of the State of New York, hereinafter referred to as Grantee, does hereby remise, release and quitclaim to Grantee, their successors and assigns, subject to the reservations, exceptions, restrictions, conditions and covenants hereinafter set forth, all right, title and interest of the Grantor in and to the following described property:

All that tract or parcel of land situate at the Camp Hero Hilltary Reservation, in the Town of East Hampton, County of Suffolk, State of New York and more particularly described as follows:

Beginning at a point that is 861 feet distant from, and southeasterly of a concrete monument on the scutherly R.O.W. line of State Highway No. 27, said monument being located at coordinates N 314,763.25, E 2,588,441.99, said point of beginning more specifical being the following four (4) courses and distances from the aforementioned concrete monument. (1) 72.61 feet along an arc curving to the left, having a radius of 205.99 feet, the chord distance being 72.33 feet, on a bearing of S 170 50 19 E to a concrete monument; thence (2) 116.38 feet along an arc curving to the right having a radius of 345.09 feet, the Chord distance being 115.83 feet bearing of S 180 161 31 Excellent

proceeding thence (4) 5 439 21 19 32 (1) 32

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corner of a parcel of land transferred to the Department of Transportation (United States Coast Guard); proceeding thence along said lands, the following seven (7) courses and distances

- (1) due south, 150 feet to a point; thence
- (2) due west 245 feet to a point; thence
- (3) due south, 380 feet to a point; thence
- (4) due east, 245 feet to a point, thence
- (5) due south, 70 feet to a point, thence
- (6) due east, 300 feet to a point, thence
- (7) due north, 600 feet to a point at coordinates N 314,100, E 2,589,900; thence departing said lands and proceeding due east a distance of 296 feet more or less, to a point on the high-water line of the Atlantic Ocean; thence along said high-water line the following three (3) courses and distances(1) S 09° 02' 10" W, 217.58 to a point; thence (2) S 15° 37' 41" W, a distance of 374.94 feet to a point; thence (3) S 34° 04' 20" W, a distance of 545.22 feet to a point; thence departing said high-water line and proceeding N 57° 30' Y, a distance of 590 feet to a point on the intersection of the westerly edge of 01d Montauk Highway and the northerly edge of an existing access road; thence following more or less said northerly edge of the access road the following four (4) cources and distances:
 - (1) S 81° 20" W, 180 feet more or less, to a point; thence
 - (2) N 80° 00° W, 280 feet more or less, to a point; thence
 - (3) N 60° 00° W, 110 feet more or less, to a point; thence
 - (4) N 420 30° W, 180 feet more or less, to a point; thence departing said access road and proceeding N 69° 45° E, 330 feet more or less to a point; thence N 03° 45° E, 390 feet more or less to a point; thence N 71° 59° 16" E 41°.6 feet to the point of beginning. The coordinates referred to in the above description are based on the Lambert Conformal Conic Projection for rectangular coordinates. on Long Island, New York.

The property herein conveyed contains 18.09 acres of land, more or less, and was formerly a portion of Camp Hero, Hontauk, New York under the Administrative jurisdiction of the Corps of Engineers, Department of the Army, an agency of the United States Government.

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TOGETHER WITH the appurtenances and improvements thereon, and all the estate and rights of the Grantor in and to said premises.

SUBJECT TO any and all outstanding reservations, easements and rights-of-way for public roads, railroads, pipelines, drainage ditches, sewer mains and lines, and public utilities affecting the property herein conveyed.

TO HAVE AND TO HOLD the above premises, subject to the easements, reservations, exceptions, restrictions, conditions, and covenants herein enumerated and set forth, unto the Grantee, its successors and assigns, forever.

There are excepted from this conveyance and reserved to the Grantor all oil, gas and other minerals in, under, and upon the lands herein conveyed, together with the right to enter upon the land for the purpose of mining and removing the same.

There is further excepted from this conveyance and reserved to the Grantor the right to have the United States Coast Guard review and approve any new construction within a radius of one thousand (1,000) feet and use of existing structures or buildings within four hundred (400) feet of a point whose coordinate values are N313, 960, and E2, 589, 707; and a point whose coordinate values are N313, 745 and E2, 589, 530, that may affect the radiation pattern, radiated power, or result in increased receiver noise to the Government electronic install tion now in existence and located at the above described coordinates, or as may later be installed.

In addition, the Government reserves the right of ingress and egress over the established road known as Old Kontauk Highway.

Pursuant to authority contained in the Federal Property and Administrative Services Act of 1949, as amended, and applicable rules, regulations and order promulgated thereunder, the General Services Administration determined the property to be surplus to the needs of the United States of America and assigned the property to the Department of the Interior for conveyance to Grantee.

It is understood and agreed by and between the Grantor and Grantee, and Grantee by acceptance of this deed does acknowledge that it fully understands the terms and conditions set forth herein and does further covenant and agree for itself, and its successors and assigns, forever as follows:

- the public purposes for which it was conveyed in perpetuity as set forth in the program of utilization and plan contained in Grantee's application submitted by Grantee on May 4, 1977 as amended by letter dated September 24, 1980 which program and plan may be amended from tinto time at the request of either the Grantor or Grantee, with the written concurrence of the other party, and such amendments shall be added to and become a part of the original application.
- 2. The Grantee shall, within six months of the date of this deed, erect and maintain a permanent sign or marker near the point of principal access to the conveyed area indicating that the property is a park or recreational area and has been acquired from the Federal Government for use by the general public.
- 3. The property shall not be sold, leased, assigned, or otherwise disposed of except to another eligible governmental agency that the Secretary of the Interior agrees in writing can assure the contained use and maintenance of the property for public park or public recreational purposes subject to the same terms and conditions in the original instrument of conveyance. However, nothing in this provision shall preclude the Grantee from providing related recreational facilities and services compatible with the approved application, through concession agreements entered into with third parties, provided prior concurrence to such agreements is obtained in writing from the Secretary of the Interior.
 - 4. From the date of this conveyance, the Grantee, its successors and assigns, shall submit biennial reports to the Secretary of the Interior setting forth the use made of the property during the preceding two-year period, and other pertinent data establishing its continuous use for the purposes set forth above, for ten consecutive reports and as further determined by the Secretary of the Interior.
 - 5. If, at any time, the United States of America shall determine that the premises herein conveyed, or any part thereof, are needed for the national defenses, all right, title and interest in anto said premises or part thereof determined to be necessary to such national defense, shall revert to and become the property of the United States of America.

- The Grantee further covenants and agrees for itself, its successors and assigns, to comply with the requirements of public Lew 90-480 (82 Stat. 718), the Architectural Barriers Act of 1968, as amended by Public Law 91-205 of 1970 (84 Stat. 49) and regulations and orders promulgated thereunder, to assure that development of facilities on the property makes such facilities accessible to the physically handicapped; and, further assure in accordance with Public Law 93-112, the Rehabilitation Act of 1973 (87 Stat. 394) that no otherwise qualified handicapped individual shall, solely by reason of his or her handicap, be excluded from the participation in, be denied benefits of, or be subject to discrimination under any program or activity receiving Federal financial assistance.
- 7. The Grantee further covenants and agrees to comply with the 1977 Amendments to the Federal Water Pollution Control Act (Clean Water Act of 1977), Executive Order 11988 (May 24, 1977) for Ploodplain Management and Executive Order 11990 (May 24, 1977) for Protection of Wetlands where said Amendments and Orders are applicable to the property herein conveyed. In particular, Grantee agreed that the property herein conveyed shall be subject to any use restrictions issued under said Amendments and Orders.
- 8. As part of the consideration for this deed, the Grantee covenants and agrees for itself, its successors and assigns, that: (1) the program for or in connection with which this deed is made will be conducted in compliance with, and the Grantee, its successors and assigns, will comply with all requirements imposed by or pursuant to the regulations of the Department of the Interior as in effect on the date of this deed (43 C.F.R. Part 17) issued under the provisions of Title VI of the Civil Rights Act of 1964; (2) this covenant shall be subject in all respects to the provisions of said regulations; (3) the Grantee, its successors and assigns, will promptly take and continue to take such action as may be necessary to effectuate this coverant; (4) the United States shall have the right to seek judicial enforcement of this covenant; and (5) the Grantee, its successors and assigns, will: (a) obtain from each other person (any legal entity) who through contractual or other arrangements with the Grantee, its successors or assigns, is authorized to provide services or benefits

under said program, a written agreement pursuant to which such other persons shall, with respect to the services or benefits which he is authorized to provide, undertake for himself the same obligations as those imposed upon the Grantee, its successors and assigns, by this covenant, and (b) furnish a copy of such agreement to the Secretary of the Interior or his successor; and that this covenant shall run with the land hereby conveyed, and shall, in any event, without regard to technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law and equity for the benefit of and in favor of the Grantor and enforceable by the Grantor against the Grantee, its successors and assigns.

9. In the event there is a breach of any of the conditions and covenants herein contained by the Grantee, its successors and assigns, whether caused by the legal or other inability of the Grantee, its successors and assigns, to perform said conditions and covenants, or otherwise, all right, title and interest in and to the said premises shall revert to and become the property of the Grantor at its option which, in addition to all other remedies for such breach shall have the right of entry upon said premises, and the Grantee, its successors and assigns, shall forfeit all right, title and intere: in said premises and in any and all of the tenements, hereditaments and appurtenances thereunto belonging; provided, however, that the failure to the Secretary of the Interior to require in any one or mor instances complete performance of any of the conditions or covenants shall not be construed as a waiver or relinquishment of such future performance, but the obligation of the Grantee, its successors and assigns, with respect to such future performance shall continue in full force and effect:

to be executed in its name and on its behalf this 18th day of November, 19 8.

Regional Director
Hational Park Service
Hid-Atlantic Region
143 South Third Street

UNITED STATES OF AMERI

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On this 18th day of November , 1982, before me, the subscriber, personally appeared James W. Caleman, to me known and known to me to be the Regional Director, National Park Service, Mid-Atlantic Region, of the United States Department of the Interior, a governmental agency of the United States of America, with offices at 143 South Third Street, Philadelphia Pennsylvania, and known to me to be the same person described in and who executed the foregoing instrument as such Regional Director aforesaid, as the act and deed of the United States of America, for and on behalf of the Secretary of the Interior, duly designated, empowered and authorized so to do by said Secretary, and he acknowledged that he executed the foregoing instrument for and on behalf of the United States of America, for the purposes and uses therein described.

My Commission expires: CAROL ANN KROPP Notary Public, Phila., Phila. Co. Lay Commission Expires Cot. 13, 1983

The foregoing conveyance is hereby accepted and the undersigned agrees, by this acceptance, to assume and be bound by all the obligations, conditions, covenants and agreements therein contained.

THE PEOPLE OF THE STATE OF NEW YORK

Commissioner, Office of Parks,

Recreation and Historic Preservation.

State of New York

county of alleany

ACKNE #LEDGENERT

	on this 24th day of Namenter, 1952, before
	me personally came ORIN LEHMAN, to me known and known to me to
	be the Commissioner of Parks, Recreation and Historic Preservation
	in the Executive Department of the State of New York, and known
-	to me to be the same person described in and who executed the fore-
	going instrument, and he duly acknowledged to me that he executed
	the same as such Commissioner of Parks, Recreation and Historic
	Preservation for and on behalf of the People of the State of New
	York, pursuant to and as required by statute.
	\checkmark
	Vorraine M. De Cassi
	Notary Public LORRAGIE M. DeROSSI
	My Commission Expires: Notary Public, Stale of New York Qualified in Microgramy Address: Notary Public, Stale of New York Qualified in Microgramy No. 4777950
	3/30/84 Commission Expires Merch 30, 1924
	Approved:
	See Attached letter Director of the Budge:
-	
-	Approved as to form:
	ROBERT ABRAMS
	Attorney General
	By Danald & Shimer
	Date: Apr. 1 6, 1983
	•
	Approved by the Comptrolly 7:
	DE OR July
	Date: APR 15 1933
	W. 22010

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ARTHUR J. FELICE CLERK OF SUFFOLK COUNTY



Record and Return to

Department of Law Real Property Bureau The Capitol Albany, NY 12224

Attn: Donald E. Shehigian Senior Attorney



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The UNITED STATES OF AMERICA, hereinafter referred to as Grantor, acting by and through the Acting Regional Director, National Park Service, Mid-Atlantic Region with offices at 143 Third Street, Philadelphia, Pennsylvania, pursuant to authority delegated by the Secretary of the Interior, and as authorized by the Federal Property and Administrative Services Act of 1949 (63 Stat. 377), as amended, and particularly as amended by Public Law 91-485 (84 Stat. 1084), and regulations and orders promulgated thereunder, for and in consideration of the use and maintenance of the property herein conveyed exclusively for public park or public recreation purposes in perpetuit the People of the State of New York, hereinafter felerred Grantee, does hereby remise, release and quitclaim to Grantee, their successors and assigns, subject to the reservations, exceptions, restrictions, conditions and covenants hereinafter set forth, all right, title and interest of the Grantor in and to the following described property:

All that tract or parcel of land situate at the Camp Hero Military Reservation, in the Town of East Hampton, County of Suffolk, State of New York and more particularly described as follows:

Beginning at a point that is 861 feet distant from, and southeasterly of a concrete monument on the southerly R.O.W. line of State Highway No. 27, said monument being located at coordinates N 314,763.25, E 2,588,441.99, said point of beginning more specifically being the following four (4) courses and distances from the aforementioned concrete monument. (1) 72.61 feet along are are curving to the left, handle 2003.00 feet, the chord distance being 72.23 feet, on a bearing of S 17° 50' 19" E to a concrete monument; thence (2) 116.38 feet along an arc curving to the right having a radius of 345.09 feet, the chord distance being 115.83 feet on a bearing of S 18° 16' 31" E to a concrete monument; thence (3) S 43° 21' 19" E, a distance of

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634.47 feet to a concrete monument; proceeding thence (4) S 43° 21' 19" E a distance of 37.54 feet to the true point of beginning located at coordinates N 314,095.88, E 2,588,961.79; proceeding thence due east a distance of 638 feet to a point at coordinates N 314,100, E 2,589,600 being the northwesterly corner of a parcel of land transferred to the Department of Transportation (United States Coast Guard); proceeding thence along said lands, the following seven (7) courses and distances:

- (1) due south, 150 feet to a point; thence
- (2) due west 245 feet to a point; thence
- (3) due south, 380 feet to a point; thence
- (4) due east, 245 feet to a point, thence
- (5) due south, 70 feet to a point, thence
- (6) due east, 300 feet to a point, thence
- (7) due north, 600 feet to a point at coordinates N 314,100, E 2,589,900; thence departing said lands and proceeding due east a distance of 296 feet more or less, to a point on the high-water line of the Atlantic Ocean; thence along said high-water line the following three (3) courses and distances (1) S 09° 02' 10" W, 217.58 to a point; thence (2) S 15° 37' 41" W, a distance of 374.94 feet to a point; thence (3) S 34° 04' 20" W, a distance of 545.22 feet to a point; thence departing said high-water line and proceeding N 57° 30' W, a distance of 590 feet to a point on the intersection of the westerly edge of Old Montauk Highway and the northerly edge of an existing access road; thence following more or less said northerly edge of the access road the following four (4) courses and distances: (1) S 81° 20' W, 180 feet more or less, to a point; thence (2) N 80° 00' W, 280 feet more or less, to a point; thence (3) N 60° 00' W, 110 feet more or less, to a point; thence (4) N 42° 30' W. 180 feet more or less, to a point. thence departing said access road and proceeding N 69° 45' E, 330 feet more or less to a point; thence N 03° 45' E, 390 feet more or less to a point; thence N 71° 59' 16" E 41.6 feet to the point of beginning. The coordinates referred to in the above description are based on the Lambert Conformal Conic Projection for rectangular coordinates on Long Island, New York.

The property herein conveyed contains 18.09 acres of land, more or less, and was formerly a portion of Camp Hero, Montauk, New York under the Administrative jurisdiction of the Corps of Engineers, Department of the Army, an agency of the United States Government.

TOGETHER WITH the appurtenances and improvements thereon, and all the estate and rights of the Grantor in and to said premises.

SUBJECT TO any and all outstanding reservations, easements and rights-of-way for public roads, railroads, pipelines, drainage ditches, sewer mains and lines, and public utilities affecting the property herein conveyed.

TO HAVE AND TO HOLD the above premises, subject to the easements, reservations, exceptions, restrictions, conditions, and covenants herein enumerated and set forth, unto the Grantee, its successors and assigns, forever.

There are excepted from this conveyance and reserved to the Grantor all oil, gas and other minerals in, under, and upon the lands herein conveyed, together with the right to enter upon the land for the purpose of mining and removing the same.

There is further excepted from this conveyance and reserved to the Grantor the right to have the United States Coast Guard review and approve any new construction within a radius of one thousand (1,000) feet and use of existing structures or buildings within four hundred (400) feet of a point whose coordinate values are N313, 673 and E2, 589, 795; and a point whose coordinates are N313, 960 and E2, 589, 707 and a point whose coordinate values are N313, 745 and E2, 589, 530, that may affect the radiation pattern, radiated power, or result in increased receiver noise to the Government electronic installation now in existence and located at the above described coordinates, or as may later be installed.

In addition, the Government reserves the right of ingress and egress over the established road known as Old Montauk Highway.

Pursuant to authority contained in the Federal Property and Administrative Services Act of 1949, as amended, and applicable to rules, regulations and order promulgated thereunder, the General Services Administration determined the property to be surplus to the needs of the United States of America and assigned the property to the Department of the Interior for conveyance to Grantee.

It is understood and agreed by and between the Grantor and Grantee, and Grantee by acceptance of this deed does acknowledge that it fully understands the terms and conditions set forth herein and does further covenant and agree for itself, and its successors and assigns, forever as follows:

- 1. The property shall be used and maintained exclusively for the public purposes for which it was conveyed in perpetuity as set forth in the program of utilization and plan contained in Grantee's application submitted by Grantee on May 4, 1977 as amended by letter dated September 24, 1980 which program and plan may be amended from time to time at the request of either the Grantor or Grantee, with the written concurrence of the other party, and such amendments shall be added to and become a part of the original application.
- 2. The Grantee shall, within six months of the date of this deed, erect and maintain a permanent sign or marker near the point of principal access to the conveyed area indicating that the property is a park or recreational area and has been acquired from the Federal Government for use by the general public.
- 3. The property shall not be sold, leased, assigned, or otherwise disposed of except to another eligible governmental agency that the Secretary of the Interior agrees in writing can assure the contained use and maintenance of the property for public park or public recreational purposes subject to the same terms and conditions in the original instrument of conveyance. However, nothing in this provision shall preclude the Grantee from providing related recreational facilities and services compatible with the approved application, through concession

agreements entered into with third parties, provided prior concurrence to such agreements is obtained in writing from the Secretary of the Interior.

- 4. From the date of this conveyance, the Grantee, its successors and assigns, shall submit biennial reports to the Secretary of the Interior setting forth the use made of the property during the preceding two-year period, and other pertinent data establishing its continuous use for the purposes set forth above, for ten consecutive reports and as further determined by the Secretary of the Interior.
- 5. If, at any time, the United States of America shall determine that the premises herein conveyed, or any part thereof, are needed for the national defenses, all right, title and interest in and to said premises or part thereof determined to be necessary to such national defense, shall revert to and become the property of the United States of America.
- 6. The Grantee further covenants and agrees for itself, its successors and assigns, to comply with the requirements of Public Law 90-480 (82 Stat. 718), the Architectural Barriers Act of 1968, as amended by Public Law 91-205 of 1970 (84 Stat. 49) and regulations and orders promulgated thereunder, to assure that development of facilities on the property makes such facilities accessible to the physically handicapped; and, further assure in accordance with Public Law 93-112, the Rehabilitation Act of 1973 (87 Stat. 394) that no otherwise qualified handicapped individual shall, solely by reason of his or her handicap, be excluded from the participation in, be denied benefits of, or be subject to the discrimination under any program or activity receiving Federal financial assistance.
- 7. The Grantee further covenants and agrees to comply with the 1977 Amendments to the Federal Water Pollution Control Act (Clean Water Act of 1977), Executive Order 11988 (May 24, 1977) for Flood-plain Management and Executive Order 11990 (May 24, 1977) for Protection of Wetlands where said Amendments and Orders are applicable to the property herein conveyed. In particular,

Grantee agrees that the property herein conveyed shall be subject to any use restrictions issued under said Amendments and Orders.

- 8. As part of the consideration for this deed, the Grantee covenants and agrees for itself, its successors and assigns, that: (1) the program for or in connection with which this deed is made will be conducted in compliance with, and the Grantee, its successors and assigns, will comply with all requirements imposed by or pursuant to the regulations of the Department of the Interior as in effect on the date of this deed (43 C.F.R. Part 17) issued under the provisions of Title VI of the Civil Rights Act of 1964; (2) this covenant shall be subject in all respects to the provisions of said regulations; (3) the Grantee, its successors and assigns, will promptly take and continue to take such action as may be necessary to effectuate this covenant; (4) the United States shall have the right to seek judicial enforcement of this covenant; and (5) the Grantee, its successors and assigns, will: (a) obtain from each other person (any legal entity) who, through contractual or other arrangements with the Grantee, its successors or assigns, is authorized to provide services or benefits under said program, a written agreement pursuant to which such other persons shall, with respect to the services or benefits which he is authorized to provide, undertake for himself the same obligations as those imposed upon the Grantee, its successors and assigns, by this covenant, and (b) furnish a copy of such agreement to the Secretary of the Interior or his successor; and that this covenant shall run with the land hereby conveyed, and shall, in any event, without regard to technical classification or designation, legal or otherwise, be binding to the fullest extent permitted by law and equity for the benefit of and in favor of the Grantor and enforceable by the Grantor against the Grantee, its successors and assigns.
- 9. In the event there is a breach of any of the conditions and covenants herein contained by the Grantee, its successors and assigns, whether caused by the legal or other inability of the Grantee, its successors and assigns, to perform said conditions

and covenants, or otherwise, all right, title and interest in and to the said premises shall revert to and become the property of the Grantor at its option which, in addition to all other remedies for such breach, shall have the right of entry upon said premises, and the Grantee, its successors and assigns, shall forfeit all right, title and interest in said premises and in any and all of the tenements, hereditaments and appurtenances thereunto belonging; provided, however, that the failure of the Secretary of the Interior to require in any one or more instances complete performance of any of the conditions or covenants shall not be construed as a waiver or relinquishment of such future performance, but the obligation of the Grantee, its successors and assigns, with respect to such future performance shall continue in full force and effect:

The sole purpose of this deed is to correct two errors in a deed between the Grantor and Grantee herein, dated November 18, 1982 and recorded in the Suffolk County Clerk's Office April 13, 1983 in Book 9349 at page 560. Said two changes have been underlined above.

IN WITNESS WHEREOF, the Grantor has caused these presents to be executed in its name and on its behalf this 8th day of Telerup, 19 to .

UNITED STATES OF AMERICA

Regional Director
National Park Service
Mid-Atlantic Region
143 South Third Street

Philadelphia, Pennsylvania 19106

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State of Bangliania

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County of (That shin)

On this 8th day of Jebruary , 1984, before me, the subscriber, personally appeared

the Regional Director, National Park Service, Mid-Atlantic Region, of the United States Department of the Interior, a governmental agency of the United States of America, with offices at 143 South Third Street, Philadelphia, Pennsylvania, and known to me to be the same person described in and who executed the foregoing instrument as such Regional Director aforesaid, as the act and deed of the United States of America, for and on behalf of the Secretary of the Interior, duly designated, empowered and authorized so to do by said Secretary, and he acknowledged that he executed the foregoing instrument for and on behalf of the United States of America, for the purposes and uses therein

Notary Public

My Commission expires:

described.

Motary Public, Phila., Phila. Co.

The foregoing conveyance is hereby accepted and the undersigned agrees, by this acceptance, to assume and be bound by all the obligations, conditions, covenants and agreements therein contained.

THE PEOPLE OF THE CHATTE OF MEW YORK

y Clanteran

Commissioner, Office of Parks, Recreation and Historic Preservation

ACKNOWLEDGEMENT

State of New York

)ss:

County of filling)

On this /3/4 day of 19/4, before me personally came ORIN LEHMAN, to me known and known to me to be the Commissioner of Parks, Recreation and Historic Preservation in the Executive Department of the State of New York, and known to me to be the same person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same as such Commissioner of Parks, Recreation and Historic Preservation for and on behalf of the People of the State of New York, pursuant to and as required by statute.

Codellat Riffung Notary Public

My Commission Expires

Commission Expires March 30, 1924

Approved as for form:

ROBERT ABRAMS

hul ossorial Mony

Date: 1000.15,1481

Approved by the Comptroller:

Henry Isliester Since Markey

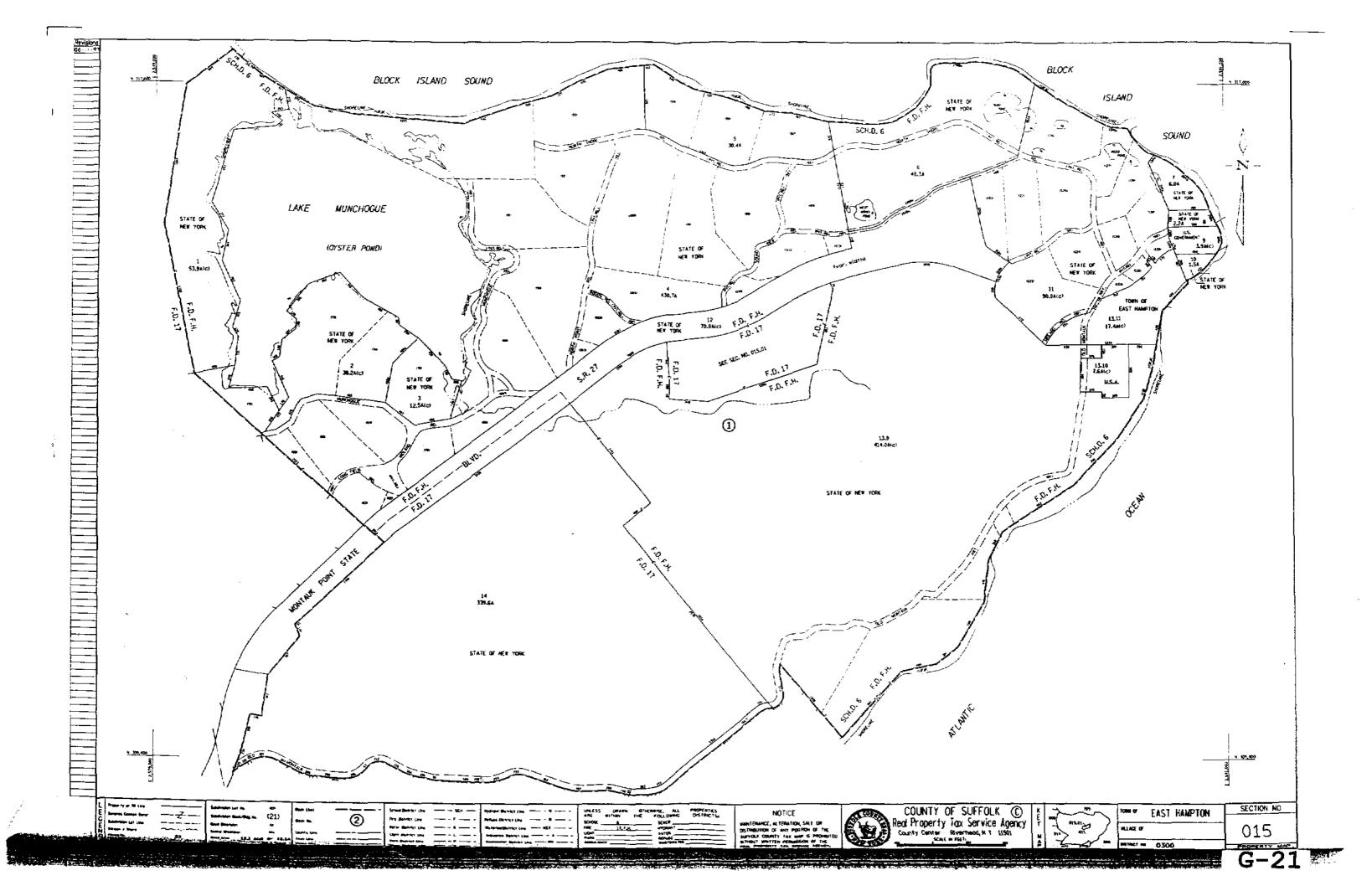
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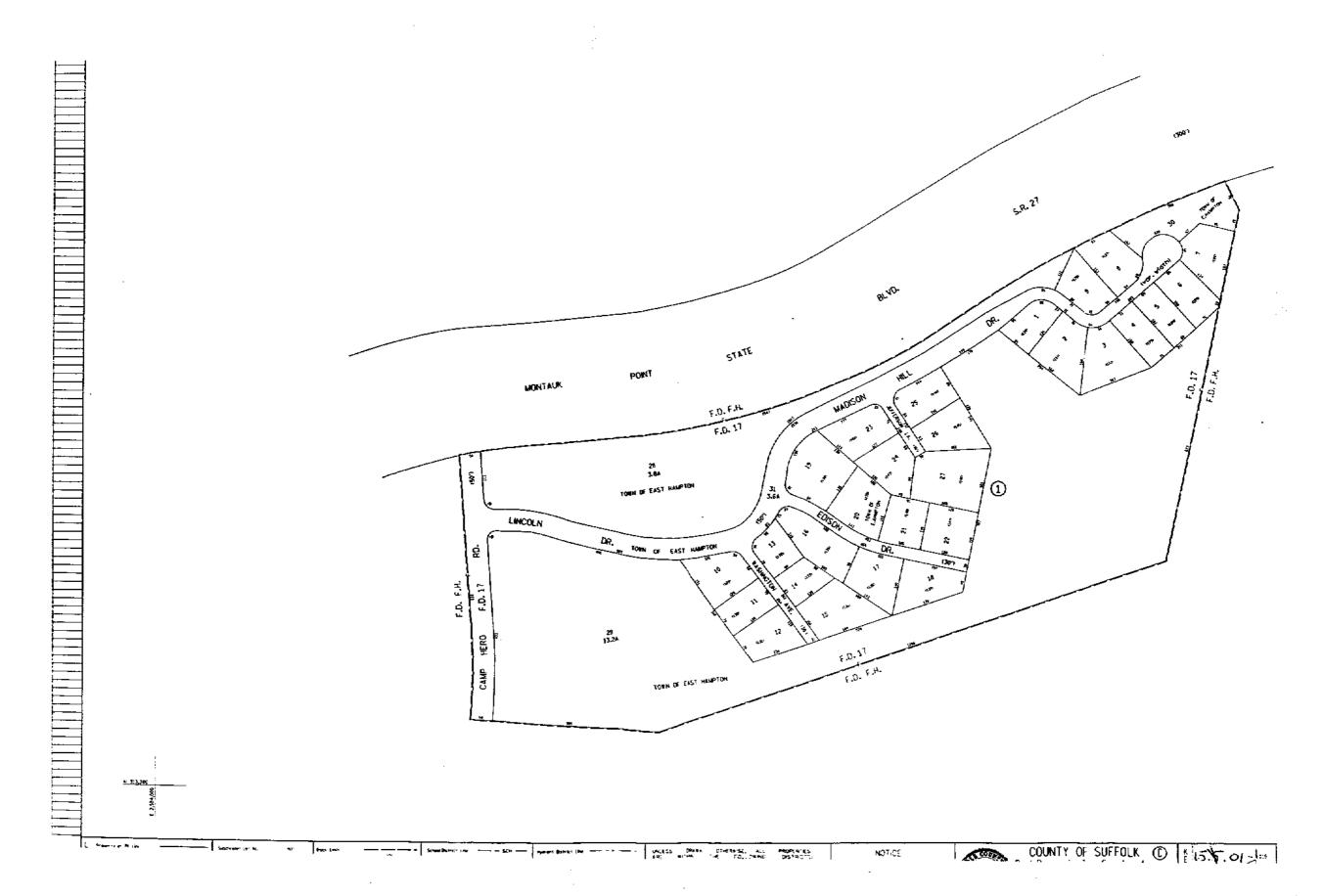
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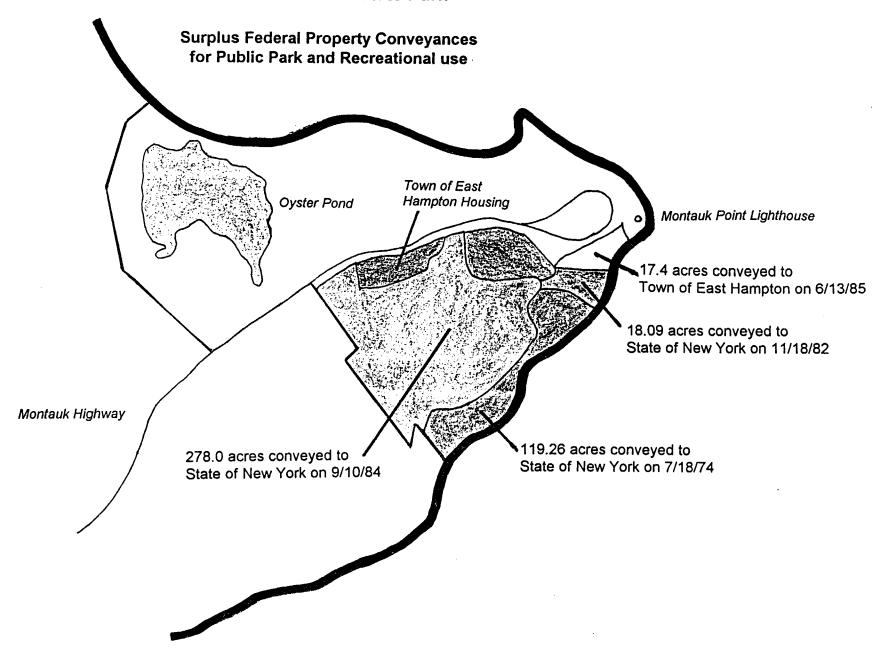
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Montauk Point State Park



ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX H

NEWSPAPERS/JOURNALS

APPENDIX H

NEWSPAPERS/JOURNALS

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MILITARY CAMP FOR MONTAUK

National Guard Units to Make Their Summer Camp at

Montauk

It has been announced that National Guard camps will be established next summer at Montauk. The units assigned to Monfauk and dates are Field Artillery, June 19 to 25 inculse: First Field Artillery, August 7 to 21; Second Field Artillery, Aug-Dust 21 to September 4, formally apn proved by the Corps Area Commander, subject to availability of funds. Montauk peninsula, lying between the ocean and Block Island Sound and stretching for eight miles east from the railroad station at Fort o Pond Bay, is ideally located for a summer camp. In 1898, soldiers returning from Cube were camped in detention areas there. At one time, 45,000 soldiers, among them the 2 famous Rough Riders, were at the W Montauk camp.

MONTAUK POINT CAMP SITE

For several months the selection of a site for a field artillery camp in connection with the Citizens' Military Training Camps has hung fire because of technicalities, but Tuesday the decision was reached at Governors Island and the place named as Montauk Point, L. I. Maj. Gen. Robert Lee Bullard, commanding the 2nd Corps Area, said at this point the most extensive course in field artillery work possible in peace time will be established and the best batteries within the corps area will be sent there for demonstration units.

The co-operation of practically all the high schools within the corps area has been secured for the Citizens'—Camps. Groups of lecturers have been sent out to visit these schools and explain the advantages which the training camps will offer to young

d men.

Although Supervisor Davis has never given up hope that it will be possible to receive Federal assistance in maintaining a good road across Napeague Beach to the Point, he has gone into the matter with renewed interest since it has been learned that Montauk will be used as an instruction camp this summer.

H-2

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MONTAUK CAMP SITE SURVEYED

U. S. Army. Officers Down This Week

ALSO SURVEY NAPEAGUE ROAD

Seventh Field Artillery Will Probabe in Arrivo at "Monthair" Pint "

of June

Several officers of the U.S. Army have been down at Montauk this week aurveying for the camp site on the cast side of Fort Pond. The officers have been staying at the Huntting, going back and forth to Montauk in their own motor cars. The officers were Capt. W. G. Sandelin, Lt. Col. A. J. Green, Major L. W. Webb, fr., Major Selleck and B. H., Van Winkler, jr.

Some of the officers landed at Montauk in a navy craft which put

o in at one of the docks.

The camp will be opened about the first of June, as the 7th Field Artillery now stationed at Camp Dix will leave for their quarters during the last of this month. Later, State Militia units will go to Montauk for two weeks' training, as they did last year.

Some army officers made preliminary surveys of the Napeague road Wednesday. From this fact it might the inferred that the War Department describes that something will have to be done on this road if a permanent camp is to be maintained at Montauk.

In order to build the Neapeague of road it will take a special appropriation and if this is done Congressman Hicks and Senator Calder will have to give their approval and assistance.

Everyone interested in this matter should write at once to these congressmen urging them to push this Classication.

It is reported that the building of barracks will begin at once.

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1800 REGULARS AT CAMP WELSH

Long Island Railroad Running Special Trains

TO MILITARY TRAINING CAMP

On Wednesday 700 Candidates Arrived at CampWelsh; National

Guardsmen Attend

Arrangements have been completed by the passenger and operating departments of the Long Island Railroad Company for providing special train service in connection with the movement of three different military units to the training camp established by the United States Government at Montauk, on the easterly end of Long Island.

On Wednesday, August 2, a special train was operated out of the Pehnsylvania Station, in Manhattan, (Daylight Saving Time) for the accommodation of about 700 candidates who are attending the citizens military training camp at Montauk. This unit is under the jurisdiction of the Second Corps Area Headquarters, at Governors Island, and is made up of citizens who reside in the states of Delaware, New Jersey and New York. They will take what is known as the red, white and blue officers training courses.

Approximately 1800 U. S. Army Regulars will be stationed at the Montauk camp throughout the summer.

On July 30 members of the 102nd Ammunition Train N. G., and the 104th Field Artillery N. G., entrained for Montauk, remaining there until August 13th.

On August 13th members of the 105th Field Artillery N. G. and 132 Ammunition Train N. G., numbering 2800 men, will entrain for Montauk, and stay until August 27.

The 104th Field Artillery National Guardsmen, will take along horses, guns, and various other equipment, which will require fifty-two railroad freight cars to handle. This impediments will remain at Montauk after the 104th Field Artillery leaves on August 13 and will be utilized by the 105th Field Artillery.

The various regiments that encamped last summer at Montauk, were so well pleased with this location, that they recommended to the Army Officials in Washington that Montauk be made a permanent training and camping station.

After the close of the Spanish. American War, the army surgeons selected Montauk as the ideal camping ground upon which to build up our overtaxed and worn out warriors In less than thirty days, a camp was located at Montauk with 30,000 soldfers and a full equipment of war implements, thus becoming a scene of great activity in a brief space of time. In place of fishing boats, floating or drifting with their lazy sails to catch the breeze, Fort Pond Bay was filled with United States war vessels and transports hurrying from Cuba with their precious cargo of malarial invalids. The government also found Montauk a very desirable place to establish a Naval Air Station during the World War.

Montauk is the terminus of the Long Island Ballroad, on the south fluke, and is situated on Fort Pond Bay. Beyond is the long open peninsula of Montauk Point, rising to a height above the sea of from 50 to 100 feet. Its surface is rolling, with a small growth of trees, and it has a number of nice lakes.

In recent years many summer homes have sprung up on the twenty mile stretch from Amagansett to the Point. The sand dunes, the hills and the ocean provide a tonic which is exhilarating to the body as well as to the mind. To the north may be seen the lands of New England. To the east are the land waves of the undulating Point. Montauk seems to be at a joining, in some mystical union of the land and the sea.

For the benefit of relatives and friends who are planning to visit those attending the Citizens' Military Training Camp at Montauk, next month, the railmad management will provide extra service to take care of the visitors. These visitors can secure exhibitions aromaistations at Amagement, East Hamprim Sag Hamping are Southampers and which places are within easy report of the camp.

HAMPTON STAR 11

NO MONTAUK CAMP CMAR THIS SUMMER

Cannot Obtain Lease For

WORD RECEIVED FROM BACON

Montauk Company is Considering Sale of Property and Would Not Consider Lease of Land

For some time there have been conflicting rumors about the return of the soldiers to Montauk this coming season and the establishment of a military training camp there.

Supervisor Davis received so many inquires concerning the return of the camp that he took it up with Congressman Robert L. Bacon.

The following is Mr. Bacon's reply:

Dear Mr. Davis:

I wired you today relative to the summer camp, stating, that in all probability there would be no troops sent to Montauk this coming summer. I attach hereto topy of a letter just received from the Commanding Officer of Headquarters, Second Corps Area, which is self explanatory, and which I am sure will interest you.

Sincerely yours, Robert L. Bacon.

Hon. Robert L. Bacon.

Dear Sir: In reference to your letter of March 12, 1924, wherein you requested to be informed of any further developments pertaining to the annual field training of the New York Artillery, National Guard, at Montauk Point, please be advised that due to the fact that the Montauk Company has considered the sale of the Montauk Point property, bey will not permit the lease of the grounds for athinner training and consequently no. National Guard troops will be mant to Montauk this

The annotingement that the Mon-Otauk Company is considering the Iselling of Montauk property comes as a surprise of many as they have hept the property intact for years. Officials of the late pany have made train several times recently and it is thought that their visits have something to do with the sale of the proul perty.

Army Planes to Hold Target Practice Here

Fishermen are wondering just what effect the non-explosive bombs, which Army planes will drop near the old fort off Gardiner's Island next week, will have on the bluefishing season. The spot is a "hot" one for bluefishermen and it is felt that the presence of many Army planes and the dropping of bombs will work havoc with bluefishing.

Fort Tyler was built during the Spanish-American War and has been mapped out as a "state park" for about 10 years. This week the Long Island State Park Commission relinquished title to the property.

Air corps officials said the bombs will be of the "dummy-observation" type; containing for the most part, sand and water in addition to about one pound of black powder, which will create a visible puff of smoke for observers. Bombs will be dropped from heights ranging from 8,000 to 18,000 feet. The danger area includes all waters within 500 yards of the island.

H-6

Camp Upton Now Used For Alomic Research

Brookhaven National Laboratory for atomic research, a governmentowned, government-financed project operated by Associated Universities. Inc., under contract with the United States Atomic Energy Commission. is under construction on the 6,000acre site of Camp Upton, Brookhaven Township, Long Island, New York. · The Laboratory will provide to universities, industries, and other research organizations in the Northeastern and Middle Atlantic states a training and research center for the investigation of atomic energy. It will be equipped with facilities beyond the reach of individual institutions.

Trustees of Associated Universities, Inc., and officers of the Laboratory expect it ultimately to have a permanent staff of 300, a visiting staff from cooperating institutions of 200 or more, 500 laboratory technicians, and administrative, service, and maintenance personnel numbering about 1000. Some 100 scientists will have been assigned by Fall, 1947. Scientific activities, including the design of the atomic pile and other large equipment, are already underway, under the direction of Dr. Philip M. Morse, Director.

The research program of the Laboratory will be directed primarily to the development of new fundamental scientific information on the nature and properties of atomic energy and other applications of atomic techniques to physics, chemistry. biology, and medicine. From such research will come a better understanding of atomic energy and nuclear reactions, of methods for conetable life, improvement of mater-I ials and techniques for producing atomic power and preparing radio-Lactive isotopes, which are variant of forms of an element differing only in atomic weight.

The Brookhaven National Laboratory will provide facilities for basic research in the physical, chemical, biological, modical and engineering aspects of atomic science, and for the training of scientific workers in these, fields.

: 1

Army to Use Fort as Bomb Target

On 6 September 1949, the Secretary of the Army approved the establishment of an area to be used as a naval aircraft bombing target area in Block Island Sound in the vicinity of Gardiners Point, New York, as a danger zone and prescribed regulations pertaining to its use.

Fine danger zone is a circular area with a radius of 2,000 feet having its center on the Ruin at Gardiners Point, latitude 41 08'30", longitude 72 03'46", which point bears 326 True, 2,700 yards from the northern Fend of Gardiners Island.

The regulations provide that no Shelter Island Southampton, Southvessel shall enter or remain in the old and Westhampton Beach, New danger zone at any time, except as York.

authorized by the enforcing agency. These rules and regulations will be in full force and effect thirty days after their publication in the Federal Register. They were published in the Federal Register on 13 September 1949; public notices of approval were sent to all known interested parties on 30 September 1949, and to Postmasters at the following locations with requests to post for thirty days: Amagansett, Bridgehampton, East Hampton, Greenport, Mattituck, Montauk, Orient, Patchogue, Riverhead, Sag Harbor. Shelter Island Southampton, South-

GUNS OF MONTAUK BEING DISMANTLED

of scrap metal. The last gondole cars of metal from Camp Here and barges from Fort Wright will complete shipments of nickel to Buffalo and brass and other non-ferrois metals from the guns to Philadelphia, where the scrap once again will go into machines of peace and war. The guns of Fort Michi on Great Gull Island were removed earlier.

On the bluff here there are still the incluse of two camouflaged cot-

the shells of two camouflaged cotthe shells of two camouflaged cot-tages that housed the range finder stations of the forts. The great mounds of earthworks that cov-ered the vast concrete gun em-placements still bulk into the sky-line. But Montauk, which during thy war was a hive of military ac-tivity, has been returned to the surf casters and the sea gulls. Besides the forts of the Army, the was a Naval torrede testing

...fre was a Naval torpedo testing ... fre was a Naval torpedo testing range here, now usod as a commercial warehouse, and the Coast Guard had a chain of stations, all but;one of which has been closed. Nothing ever was said about these definees, but when the Army engaged in practice shooting with the big guns the residents knew

: ; <u>}</u>

Building of the forts began in The American Psychiatric Association amounced today that it will sponsor a five-day meeting in Philadelphia April 11-15 to discuss within ten miles of the aboteurs within ten miles of the aboteurs within ten miles of the rea. Camp Here was built by the Andrew Weston Company, and the constant procession of trucks bringing opercies, sand and gravel ways of improving mental hospital the constant procession of trucks bringing opercies, sand and gravel will sponsor a five-day meeting in Philadelphia April 11-15 to discuss within ten miles of the ways of improving mental hospital the constant procession of trucks bringing opercies, sand and gravel will sponsor a five-day meeting in Philadelphia April 11-15 to discuss ways of improving mental hospital the constant procession of trucks bringing opercies, sand and gravel ways of improving mental hospital the constant procession of trucks bringing opercies, sand and gravel ways of improving mental hospital ways of improving and cand and gravel professional gravel trucks bringing opercies, sand and gravel drawder and canderies of trucks bringing opercies, sand and gravel drawder and canderies of trucks bringing opercies, sand and gravel drawder and canderies of trucks bringing opercies, sand and gravel drawder and canderies ways of actual gravel professional gravel professional gravel professional gravel drawder and canderies of trucks bringing opercies, sand and gravel drawder and canderies of trucks bringing opercies, and gravel professional gravel professional gravel professional gravel professional gravel professional gravel gravel gravel gravel gravel gravel grave

wes hidden behind the To Confer on Mental Hospitals what wall hidden behind the mounds.

Building of the foris began in 1842, he same year that a Nazi submarine landed four spice and sabots are within ten miles of the area. Camp Hern was built by the Ardrew Weston Company, and the constant procession of truckes bringing concrete, sand and gravel to the life ruined the concrete read over the dunes. It was replaced by the state this year.

Peter Blattian of East Hampton.

THURSDAY, FEBRUARY 8, 1951

Increased Military Activity at Fort Hero, Montauk Pt.

Anti-Aircraft Guns Brought from Fort Totten for Practice

There has been a lot of Army activity on pastern Long Island early this week, following last week's announcement that an unspecified number of 12-millimeter anti-aircraft guns would be temporarily shifted from their Fort Totten installation base to Fort Hero, at Montauk Point to give crews a month's training in firing live ammunition.

First Army Headquarters said that practice would begin Monday and that an area of 30,000 yards to sea would be kept clear. Difficulty in getting the guns to Montauk arose when it was discovered that the Shinnecock canal bridge would not stand the sixty-two ton load of each gun. Suffolk County Highway Supt. Harry Tuthill, said that the bridge could not be strengthened because of its age and its condition. The bridge is 44 years old and is rated at twelve ton capacity.

The guns came through on the freight late Monday afternoon. At different times on Monday all types of army trucks were seen passing through East Hampton.

It is reported that some firing took place on Tuesday and that it is likely that other units will come to Camp Hero for practice during the summer. THE EAST HAMPTON STAR MARCH 1, 1951

Montauk Protests Summer Firing of Camp Hero Guns

Montauk fishermen and business men are upset at the news that big gun practice will begin in April, restricting fishing operations in a large area off this township.

The Montauk Business Men's Club met on Tuesday night, and the news of the Federal order regarding the Montauk area hit the 24 present like an atomic bomb. Few had any idea of it until this week, although the Commandant at the Montauk base had filed his request on January 19. The order reads that unless some protests are filed before March 5, Monday, it would be presumed that there were no objections and the plans will go forward.

Officers of the Montauk Business Men's Club are Ray Bimson, president; Edward Pospisil Jr., secretary and Walter Drobecker, treasurer. A committee was immediately appointed to work on telegrams to Congressmen and Senators and to the Engineer Corps; and local fishermen were asked to send individual telegrams. If the big-gun practice were being held now, they felt, it would not matter; but to wipe out the principal industry of the community for the entire summer season would have a terrific impact. Party-boat captains are now booking for the summer, some as far ahead as next November. While it may be possible to continue fishing by skirting the forbidden areas, the effect on the fishing public would be bad; and probably continued firing, alongshore would scare away swordfish and the striped bass normal to this area. The committee appointed to work on protests includes Frank and Bob Tuma, Bob Uhl, Sam Cox, John Kronuch, and others; a cross-section of Montauk fishing and business interests

The proposed restricted area runs from Amagansett to Block Island. It leaves an angle theoretically available but restricts passage through a one-mile-wide strip, which would probably entail some danger.

The Navy base at New London, Montaukers believe, will probably protest also. Submarines would have to go to the north side of Block Island to get in to New London. The Army and Navy may not see eve to eye on the proposition.

Bunker boats out of Fromised Land are not expected to be restricted too seriously; but passenger boats are something else.

The feeling was, at the Montauk inceting on Tuesday, that since the guns are there and everything is set, the practice plan will probably go ahead. But they would like specific days to be set for the firing—for example, Mondays, Tuesdays and Wednesdays, leaving a long weekend for normal fishing in this very broad area. Sundays are exempted already in the government ruling.

THE EAST HAMPTON STAR MARCH 1, 1951

Army Wants Firing Zone Established Near Mont'k Camp

Would Limit Party Boat And Commercial Fishing Operations Near Point

Application has been made by the Contmanding General, First Army, Governors Island, New York for the establishment of a danger zone in Atlantic Ocean off the Camp Hero Military Reservation at Montauk, in connection with antiaircraft artillery firing practice and for the establishment of regulations to govern the use and navigation of such area.

The applicant proposes to use as an antiaircraft artillery firing range an area extending about 16½ miles offshore, wherein no vessel shall enter or remain during the times of firing unless specific permission is granted in each case by one of the representatives of the enforcing agency policing the area in patrol boats. A portion about one mile wide around Montauk Point is reserved for the use of navigation by regular cargo-carrying vessels and commercial fishing vessels during the times of firing practice.

Firing practice under these proposed regulations will commence in April and continue during the remainder of the year. These proposed regulations do not alter or affect the practice firing scheduled during the month of February, which was annuunced in "Notice to Mariners". Nos. 6 and 7, dated January 31 and February 2, 1951; respectively, and issued by the Commander, Third Coast Guard District.

The decision as to whether or not the proposed danger zone will be established, must rest primarily upon the effect of the proposed danger zone on navigation. Any criticisms or protests regarding the proposed danger zone, from the standpoint of navigation, Shauld be submitted to this office prior to March 5, 1951, otherwise it will be presumed that no objections exist.

Firing in the danger zone will take place from 7:30 a.m. to 4:30 p.m. on certain days throughout the year other than Sundays.

Except as provided in the paragraph below concerning regular cargo-carrying vessels or commercial fishing vessels, no vessel shall enter or remain in the danger zone during the times of firing unless specific permission is granted in each case by one of the representatives of the enforcing agency policing the area in patrol boats.

On days when firing is to take place, a large red flag will be displayed from the observation tower on the reservation. This flag will bedisplayed not later than 7:00 a.m. of that day, and will be removed when firing ceases for the day, Mariners' will also be advised locally by shipto-ship radio operating on a frequency of 2738 kilocycles, when firing has ceased for the day, and as far in advance as possible when it is determined that no firing will take place on any day for which firing is scheduled. Mariners should make inquiries to the Commanding Officer at Camp Hero, or to any of his authorized representatives, for specific information regarding the firing schedule.

Prior to, and during the conduct of each firing practice, the danger zone will be patrolled by Army-controlled aircraft and vessels to insure that no watercraft are within the danger zone, and to warn any watercraft found therein, that Tiring practice is to take place. Any such watercraft, upon being so warned, shall immediately leave the danger zone and shall remain outside the zone until the conclusion of the firing practice.

Frain Postpones Montauk Gunnery

Speciality Tax New York Taken

MONTAUK I II April 4 Frain

Lemporarily helped the Montauk

Lishermen in their battles with the

Lishermen in the b

NEW YORK TIMES, 3April 1951

Boais Warned Fort Hero Anti-aircraft Practise Resumes Off Point Monday

Beginning hext Monday anti-aircraft practice from Fort Hero resumes, off Montauk Point.

Except for an area close inshore at Montauk Point, the waters will be unsafe until Feb. 1, the Coast Guard says. The firing of the big 90 millimeter AA guns will go on from 9 a.m. to 4 p.m. according to the report.

Fishermen, both commercial and pleasure, complained about the Army's taking over the fishing grounds off the point when the guns were first moved in last Fall. The grounds are still closed but they did win the concession of the safe area close to shore so that they could return to their docks even if they had to go out of their way.

The danger area, according to the Army, covers a circle 23,000 yards or about 12 miles in radius from Fort Hero. The guns will be fired sometimes before 9 a.m. but these occasional individual rounds will be aimed at "fixed points for testing purposes in accordance with the established Army safety regulations and will involve no restrictions on navigation," the report said.

Army patrol vessels will broadcast warnings on ship-to-ship radio before the firing commences and when it stops.

The east hampton star 01/31/52

Amy Resumes Firing M Montauk Mon., Feb. 4

Notice is hereby given that First kmy will conduct Antiaircraft Ar-Buy practice fire in Atlantic Ocean; Montauk Point, New York, dur-W the period of 4 to 29 February taily, except Saturdays, Sundays or tal holidays, between the hours of \$:00 a.m. and 4 p.m., local time. Such firings as are conducted prior 6 9:00 a.m. on the days indicated in this notice will be occasional insividual founds fired at fixed points for texting purposes in accordance with established Department of the Army safety regulations, and will involve no restrictions on naviga-

During the regular periods of firing a large red flag will be displayed from the observation tower on the reservation and the area will be patrolled by Army vessels and airmil No vessel shall enter or rehain in the danger area during the times of firing, except that navigalion will be permitted through a fortion of the area extending about me mile offshore around Montauk Point. For specific information conaming the firing schedule, marinn should consult the patrol vessels Moned at the area, or the Comading Officer, Camp Hero, Mon-N. Y. (Telephone: Montauk boot 2814). The putrol vessels will headcast on Ship-to-Ship Radio (on ms k.c.) when firing for each day ha ceased and when firing is to be tesumed.

AA Practice Firing Off Montauk in October

The Army will conduct Antiaircraft Artillery practice firing in the Atlantic Ocean off Montauk Point, during the period October 1 to 31, daily except Saturdays, Sundays or legal holidays, between the hours of 9:00 a.m. and 4:00 p.m. local time. Such firings as are conducted prior to 9:00 a.m. on the days indicated in this notice will be occasional individual rounds fired at fixed points for testing purposes in accordance with established Department of the Army safety regulations, and will involve no restrictions on navigation.

During the regular period of firing, a large red flag will be displayed from the flag pole on the reservation and the area will be patrolled by Army vessels and aircraft. No vessel shall enter or remain in the danger area during the times of firing, except that navigation will be permitted through a portion of the area extending about one mile offshore around Montauk Point. For specific information concerning the firing schedule, mariners should consult the patrol vessels stationed at the area, or the Commanding Officer, Camp Herd, Montauk, New York (tel. MOntauk Point 2814). The patrol vessels will broadcast on Ship-to-Ship Radio (on 2738 k.c.) when firing for each day has ceased and when firing is to be resumed.

The danger area from October 1 to October 31, for 90 mm, flying (23,000 yards from Montauk Point light) is described as follows:

Reginning at a point on the shore at Latitude 41-04-27 North; Longitude 71-50-40 West; thence to Lat. 41-00-28, Long. 71-37-36; thence to Lat. 40-55-02, Long. 71-40-20; thence to Lat. 40-51-30, Long. 71-53-24; thence to Lat. 40-54-28, Long. 72-00-00; thence to a point on shore at Lat. 41-02-47, Long. 71-53-28; thence along the shore to the point of beginning, except that navigation will be permitted through the area extending one mile offshore.

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First Army To Conduct Artillery Practice Soon

Notice is hereby given that First Army will conduct Anti-alreraft Artillery practice fire in Atlantic Ocean off Montauk Point, during the period November 24 to December 19, daily except Saturdays, Sundays or legal holidays, between the hours of 9:00! a.m. and 4:00 p.m. local time. Such, firings as are conducted prior to 9:00 a.m. on the days indicated in this notice will be occasional individual rounds fired at fixed points for testing purposes in accordance with established Department of the Army safety regulations, and will involveno restrictions on navigation.

During the regular period of firing, a large red flag will be displayed from the flag pole on the reservation and the area will be patrolled by Army vessels and aircraft. No vessel shall enter or remain in the danger area during the times of firing, except that navigation will be permitted through a portion of the area extending about one mile offshore around Montauk Point. For specific information concerning the firing schedule, mariners should consult the patrol vessels stationed at the area, or the Commanding Officer, Camp Hero, Montauk Point (tel. MOntauk Point 2814). The patrol vessels will broadcast on shipto-ship radio (on 2738 k.c.) when firing for each day has ceased and when firing is to be resumed.

The danger area from November 24 to December 19 for 120 mm. firing (30,000' yards from Montauk Point light) is described as follows:

Beginning at a point on the east shore of Montauk Point at Latitude 41 04' 27"; thence to Lat. 40' 59' 20", Long. 71 33' 42"; thence to Lat. 40 52' 30", Long. 71 37 08"; thence to Lat. 40 48' 04", Long. 71 53' 52"; thence to Lat. 40 51' 48", Long. 72' 02' 04"; thence to a point on the southeast shore of Long Island at Long. 71 53' 28"; and thence along the shore to the point of beginning.

Navigation Lanc—that portion of the danger zones between the shore and a line connecting the following points: Lat. 41° 04° 00°, Long. 71° 50° 00°; Lat. 41° 02° 10°, Long. 71 51° 50°; and Lat. 41° 01° 22°, Long. 71° 54° 36°.

The danger area from November 3 to November 21, for 90 mm, firing (23,000 yards from Montauk Point Light) is described as follows;

Heginning at a point on the short at Latitude 41 04 27" North: Longitude 71 50 40" West; thence; to Lat. 41 00 28", Long. 71 37 36"; thence to Lat. 40 55 02", Long. 71 40 20"; thence to Lat. 40 51; 30", Long. 71 53 24"; thence to Lat. 40 54 28", Long. 72 00 00"; thence to a point on shore at Lat. 41 02 47", Long. 71 53' 28"; thence along the shore to the point of beginning, except that navigation will be permitted through the area extending one mile offshore.

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06/06/55

Stray Shell Kills Son of Captain of Montauk Fish Boat

A 17-year-old Mattituck youthdied instantly Friday morning in the explosion of a 75-millimeter shell he was trying to cut apart with an electric are welding torch.

Victim of the blast was Stanley I. Naugles, Jr., only son of Stanley and Genevieve Naugles. Shortly ifter 9 a. m. while his parents were talking with guests in their home, the youth turned the torch on the cust-encrusted projectile, apparently with the idea of recovering the lead or use in making sinkers.

The explosion, heard over a wide area, riddled the Naugles workshop and fragments of shrapnel struck the youth in the head, left thigh and body. He was pronounced dead of a skull fracture and other injuries at 9:50 by Dr. Stanley 7. Jones of Mattituck.

The boy's father is a Montauk fishing captain, who operates a party wait fishing business and owns waterfact property there.

Coroner J. Mott Heath directed he removal of the body to a fuseral home in Cutchogue. An invesigation was conducted by Southole Fewn Police, State Police officers and investigators from the District Attorney's office. It was at first thought certain that the youth had only recently found the shell at Montauk, that it must have been one of thousands of practice shellfred in exercises by anti-aircraft gunners stationed at Camp Hero 3ut East Hampton Town Police 'hief Harry Steele, who talked with 2cl. Ctho Moomaw, commander at Jamp Hero, was of the opinion that t might have been a leftover from World War I when troops were staioned at Montauk, its unexploded projectile, weighing about 15 lbs. vas of a type now obsolete, Chief Steele said. A delegation from Fort Totten, N. Y. is conducting an in-'estigation as to the source of the

Born Oct. 27, 1937, Stanley Jr. was be oldest of the four children of Mr. and Mrs. Naugles. His surviving sisters are Mary Ann, 16; Helen, 11, and Barbara, 10. The youth formerly attended Mattituck High School and more recently, Eastern Military Academy. He was planning to enter the Navy this year.

A solemn requiem mass was conducted Monday in St. Isidore's R. C. Church, Riverhead, Hurial followed in St. John's Cemetery at Riverhead.

THE EAST HAMPTON STAR 12 /08 / 55

FATAL ACCIDENT CAMP HERO

A premature explosion of a 90 mm shell at Camp Hero yesterday at 1 p.m. caused the death of Pvt.-1 David G. Munroe. Two other endisted men, Pfc. Wesley N. Murray and Pvt.-2 Ralph Hollingsworth were seriodaly injured. Second Lt Rolfe D. Terebison, Pvt.-2 James L. Tollsby and Pvt.-2 Edward J. Cara escaped with minor injuries.

ARMY FIELD TESTS SET

Anti-Aircraft Brigade to Quit Staten Island Tomorrow

The Fifty-second Anti-Aircraft Artiliery Brigade, will move out from Fort Wadsworth, S, I., early tomorrow morning for its annual tactical field tests.

The ulas will travel through Brooklyn and Long Island to the maneuver area adjacent to the Brookhaven National Laboratories in Suffolk County. There they will undergo Army training tests designed to determine their combat readiness for redeployment in case of a general mobilization.

they will undergo Army training tests designed to determine their combat readiness for redeployment in case of a general mobilization.

Col. Robert B. Barry Jr., maneuver director, said the movement would not interfere with traffic in Brooklyn and Long Island and that local traffic regulations would be observed. The units will return to Staten Island next Friday.

MYOAK LIMES, 19 AUGSG

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ARMED FORCES DAY

Last Saturday, approximately 500 attended Armed Forces Day, at the Camp Hero Base, where Army equipment demonstrated was one 90 m.m. Anti-Aircraft Gun, which is controlled by an M-33 Radar set. A Quad 60 caliber Machine Gun, a Drone type Airplane which is used as a target for Anti-Aircraft guns.

The Air Force had a Helicopter, a Dog Patrol demonstrated, and the Radar equipment of the Air Force was open for inspection. All buildings belonging to the Air Force were on "Open House" status, guests of officers and non-commissioned officers were entertained in the Officers Club and the Airmen's Club respectively. Concluding the ceremonics of the day was a Retreat Parade conducted by the 773rd A C & W Squadron, Simultaneously with the Retreat Parade a flying over of Jets and Helicopter was conducted. Jets and 'Copter were from Suffolk County Air Base. The appearance of all military personnel was commendable.

Armed Forces Day has been created to display "Power for Peace."

timily. The camp is unique in New lork because the city code prohibits the use of trailers as living quarters sithin the city limits. Only its location « Government property protects Fort Wadsworth's colony. Constructed on the we of the tar-paper barracks which had rung up during World War One, the amp now boasts 36 trailer spaces with rater and electric power outlets, and a me link to the Wadsworth sewage sysum. A chemical warfare training buildme, moved to the camp in its entirety rom another part of the Post, is used s a central heating and sanitation structure. Although most of its inhabiunts are Wadsworth and Miller Field personnel, the camp has been home to men in the Marines, Air Force, Navy, and Coast Guard as well. The trailer amp began when a Fort Wadsworth ergeant whose job required him to be war the Post at all times hit on a plan that would allow him to see his family exasionally. Colonel Archibald L. Parsalce, then Post commander, approved the sergeant's request for permission to st up a trailer home on the reservation. When the Department of the Army late in 1948 authorized all posts to establish miler camps, the rush was on. Now here's a waiting list for space in the Wadsworth camp.

Several units arrived on Post for duty buting this period, including the 21st Signal Operations Company, the 1267th S.U. (First Army Signal Service Unit) First Army Signal Service Battalion. The 34th Antiaircraft Artillery Brigade arrived in 1950 from Fort Bliss, Texas, shortly to be replaced by the 102d AAA Bigade, a New York National Guard

When the Korean War erupted in June, 1950, Fort Wadsworth was used briefly as a basic training station, as well as an antiaircraft defense site. Some 100 selective Service draftees arrived early in 1951 from the Fort Dix Reception Center for an eight-week infantry training cycle, and they were soon drilling at the parade ground and slashing through the Staten Island woods on tactical marches. But the facilities here proved inadequate for training recruits, and Fort Dix soon assumed Wadsworth's burden.

When, in 1952, the Government dimeted that Federal units replace Naimal Guard outfits in the antiaircraft belense of primary continental targets, the 102d AAA Brigade, a National Guard unit, was transferred from Fort Wadsworth. The 52d AAA Brigade, a statinguished World War Two unit, was scativated, reorganized, and permaantly assigned here on June 13, 1952. During World War Two, the Brigade saw action in Normandy, defended 1Xth Tactical Air Command fields in Notthern France, covered the river crossings at Liege, Belgium during the Ardennes-Alsace campaign, and protected Rhine River bridges, dumps, and airfields during the Battle of the Rhineland. Under Brigadier General Legare K. Tarrant, the 52nd assumed its most important mission—the antiaircraft defense of the largest complex target in the United States, the New York-New Jersey coastal and industrial areas.

The Brigade faced its first major prob lem in July: 1952 when the Department of the Army ordered 100 percent site occupation by all antisireraft will.

Under the 102d, many of the sites of the 90-mm and 120-mm guns had been at least partially manned since the Summer of 1951. Now, the 52d prepared to move all its subordinate units into the field, setting them up in city dumps, vacant lots, farms, and parks which served as antiaircraft sites throughout New York, New Jersey, and Long Island. One site was even established alongside Aqueduct Race Track. Construction of minimum facilities—mess halls, latrines, showers, and roads—was begun in the field loca-With the onset of cold weather, the tions.

Army shipped prefabricated, insulated barracks to the sites. Troops were expected to erect the buildings, which would permit the men to move out of the squad tents they had been occupying. But the troops had barely begun to raise the pre-fabs when the American Federation of Labor's local Building and Construction Trades Council forced the work to halt. The union insisted that troop construction work was a violation of Congressional directives as well as Department of the Army policy, and threatened to strike against contractors who were building mess halls and latrines if troops continued to build the prefabs. To insure completion of the minimum facilities program, General Tarrant ordered construction on the prefabs to halt. The troops at the sites dug in for a cold winter in their squad tents. At one of the sites, the Mayor of Secaucus, New Jersey, opened the Town Hall late in December to men from the 98th AAA Gun Battalion. The Mayor had 22 cots set up, giving some of the soldiers a temporary reprieve from their cold, cramped, muddy quarters.

Through November, December, and into part of January, 1953, the troops shivered in their squad tents. But early in the new year, a shipment of Arctic tents—the Jamesway huts—arrived, and were erected without union opposition.

By the Spring of 1953, the pre-fabs were taken out of storage and set up.

One unit of the 52d-the 12th AAA Battalion-demonstrated the effectiveness of our antiaircraft weapons during an Armed Forces Day exercise in May, 1953. Three waves of Civil Air Patrol planes swooped over Miller Field while the crews of four 90-mm guns fought them off. The guns used position-tracking radar, which picks up the image of the attacking plane, then transfers the impulse to an automatic radar mechanism which trains the guns on the target. The first two waves of planes dived in from 2,000 feet, while the third wave swept in so low over the sea that radar could not be used to detect them. The crews switched from the big guns to "perimeter weapons"-light; maneuverable 50-caliber machine guns. According to news accounts, the attack was successfully repulsed by this simulated fire, with almost all of the planes being hit.

Rigorous training and improvement of the field sites marked the end of the year 1953. In August, the 80th AAA Group was charged with supervising training within the 52nd Brigade. One of the Group's first major tasks was chronographing all the Brigade's guns, in order to standardize the muzzle velocities of the guns in each battery. Training at the Montauk Point Firing Range was conducted through the Summer. One of the Brigade's units, Battery A of the 737th AAA Battalion, hit the highest score of all batteries in the U.S. with a firing record of 98 percent. In November, the entire Brigade scored an outstanding 95.6 percent in its first Army Training Test as a static unit.

In 1954, the big word was "Nike". It has been the big word ever since. For it is Nike-the radio-controlled, supersonic antiaircraft guided missile capable of tracking down and destroying enemy bombers-that has more than ever before in its history made Fort Wadsworth one of our nation's most important military posts. Through late 1953 and into 1954, Brigade officers and Army Engineers studied areas in New York, Long Island, and New Jersey to be used as Nike launching sites under the command of the 52d AAA Brigade. Often accompanied by the protests of local citizens, who felt an Army installation in the middle of their town would depreciate real estate values, sites were chosen and construction begun.

Brigadier General W. H. Hennig assumed the dual command of Fort Wadsworth and the 52d AAA Brigade in September, 1954 at the beginning of Nike site construction. His command

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Junior Rocketeers Not Using Ft. Hero Wainwright Says

Montauk and the rest of East Commit- Hampton Township has been consident of siderably perturbed by a newspaper that the story purportedly released by First Army headquarters, to the effect will be that amateur rocketeers-teen-agers -might be permitted to use the Hampton former anti-aircraft base at Monthe 1900 tauk Point to conduct experiments. Congressman Stuyvesant Wainwright has written the Star from Washington on the subject, Local residents, especially fishermen, will be greatly relieved at the following

Congressman Wainwright has protested in person and by letter to so that Lieutenant General Blackshear M. nder five Bryan, Commander, First United ited first, States Army, on the use of Camp Hero as an amateur missile site. Wainwright told General Bryan that no have for years he. Wainwright, had been have had trying to keep the waters around previous Montauk Point free and clear for received commercial and pleasure fishing. General Bryan has wired Congressman Wainwright today as follows:

"Reference your letter of 29 January, First Army has no plan to use Camp Hero or any other First Army ne eligi- installation as a center for amateur missile makers. The newspaper story indicating such a plan by First Army is incorrect and apparently based on a wrong interpretation of imum of a reply to a reporter's query.

"First Army is contemplating a s headed plan to offer guidance, encourage- Mrs. Richard Wood as chairman! ment, and advice to amateur missile organizations. Should it develop the ion Red Cross and Mrs. Gerald F. use of any Army installation might Cowan of the Junior Red Cross in clinics, be desirable, it will certainly not be Quogue, and Mrs. Wood who has done without thorough coordination summered in Wainscott for years with the community concerned. A copy of the news release is being has a house on Buell Lane this winary 20th sent to you by mail.

about this and I hope this clarifies Hampton Home Demonstration at this the matter. I will keep you advised Group on Tuesday, about the unit. of the progress of our program with you in Korea is a very pleasant e Club, memory."

ered the matter closed.

VALENTINE DINNER DANCE

Valentine's Dinner Dance which will full training. take place at Guild Hall, Saturday, reb. 15. Cuz Cambria's orchestra will play.

ld there # p.m. will be planned and pre- erans, or their families in case of a later pured by Mrs. Hurdman and Mrs. illness, and to civilians in case of S. Gardner Osbern and will be disanter or blood-bank days.

MR. AND MRS. ALAN LEE



Whose wedding took place in Southampton Jan. 25. Mr. ate of E. H. High School: his parents, Mr. and Mrs. Walter Lee, moved a few years ago to Southampion.

Red Cross Motor Corps Now Being Formed Here

A Red Cross Motor Corps unit is being formed in East Hampton, with Mrs. J. Carlton Scely of Southampand with Mr. Wood and their son ter, were present and spoke at the "I appreciate your writing to me Guild Hall luncheon of the East

The nearest unit is now at Old ird shot should it come to fruition. My visit Quoque, and is very busy. The local unit would serve from Southampton village to Montauk. Volunteer driv-Congressman Walnwright consid-, ore are wanted for the Red Cross car, which should be here within teen weeks. Seven women signed up on Tuesday; about fifteen are need-Mr. and Mrs. Frederick Hurdman ed. Anyone interested is asked to B. Watkins Seniors Tournament reand Mr. and Mrs. Kenneth Stowell get in touch with Mrs. Wood at EA are chairmen of arrangements for a 4-4091. The Red Cross will furnish

The Red Cross car, a station wagon, is convertible into an emergency in the five-day tournament, playing sition did not pass, no ambulance. Its purpose is to furnish nine holes a day. All players were The dinner, served from 7:30 to transportation to service men, vet- handicapped.

ENGAGEMENT ANNOUNCED

Mr. and Mrs. Joseph Kumron of 30 Irving St., Valley Stream and East Hampton announce the engagement of their daughter Gaile to Charles Stewart, son of Mr. and Mrs. George Stewart of 94 Glen- cation of that distric wood Ave., Glens Falls, N. Y.

The future bride, a graduate of Sewanhaka High School, is a third year student at the State University Teacher's College in Potsdam, N. Y. Mr. Stewart, a graduate of Glens Falls High School, is a junior at Clarkson College of Technology in Potsdam.

The couple plan to marry following their graduation in June, 1959.

DR. TERRY GOLF WINNER

Dr. Arthur II. Terry Jr., member of the Maldatone Citto nere and visitor at Naples, Florida for the past ten years, won the first annual H. cently at the Beach Club in Naples. The tournament was limited to golfers fifty years of age or over. Dr. Terry is 73. There were 72 entries

Pré-Lenien Card Party For Parlah Churches

CENTRAI

The Star has b umns with regard to (combining six distri Education, instead of Board.) We have deve of Centralization, to change, than to staten very strongly does fa-

Our critics may t own business; and Le but news stories shoul

In an endeavor to mimeographed bulleti: of this week, under "I a parallel column. (W Centralization.) We ho ton, to allow room fo already seen the "Bu have been sent home payers and other inter

To the Voters of this ? Your Board of Edu termined to give you nothing but facts abou and its problems. Regr who oppose the Board' actions find that it ser pose to publish statem not supported by fact:

The Statement: An in the East Hampton S ary 16 states: "Centr phasizes additional "social" services, non-c rather than instruct studies such as the The Fact: The prog schools of a central s are determined by the same laws and regulat your present program ined.

The Statement: In. vertisement. "All St tax rates under Cent pear to be deliberat very low. For exam; estimated it would c \$1,900,000. for their school building pro. contractor's bid was : sult-'No New School No Solution to River Problem." The Fact: c::timate of \$1,900,000 1934 and anticipated tion of three eleme: The vote in 1957 was sue of \$2,707,526.15 1 mentary schools and a Aquebogue building. i received.

The Statement: A tl reada: "Centralization

4-23

Val. 1, No. 11

THE COMMAND POST, HEADQUARTERS 26th AIR DIVISION IDEFENSE!

SPECIAL EDITION

Jarge

26th Air Division Is First To Operate:



LeMay Describes SAGE Concept As Révolutionary

The principal speaker at the SAGE Dedication Banquet, June 20th in the McGaire AFB Official Club, was Air Farce Vice Chief of Sinff General Curie E. Lellay.

Speaking of SAGE as "auother important milestone in the
development of United States
also-people; Joseph Lehlay wont,
on to jay, "Those of you who
have seen the complex equipment, the computers and other
data, processing devices, undoubtedty feet, as I du, that
SAGE is indeed a inverhence,
marvel, But in addition to this,
SAGE intends SAGE stands as a testimonial to a great deal of vision and deition. We would not have these important facilities today If it had not been for certain instellights who is the carty phases of the sirpower threat



Commission ADC
to the union of the danger and resliced the miles of the danger and resliced the rate at which it sould
increase. It is fortunate that
these pers had vision for the
future, and were able to discard estimated practices are
comployed dangements thinking."

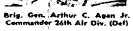
What SAGE Is and Does

"More important than the technical triumph that SAGE represents, however, is the im-proved Air Pelense expability that SAGE provides. Whereas before, our of defents was



Maj. Gen. Edward H. Underhill Commander, EADF

basis: SAGE contrailes many sir defense functions, its design followed the basic principle that defense effectiveness is meas-ured by the combination of sir weapons and ground control and not by each alone. Furthermore,

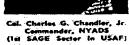


Commander 26th Air Div. (Def) it minimizes manual tasks. Under the old system one manual tasks to be a superior point to point on the SAGE, screes of units are malking? To such attent of manual performed by men vectoring; interreptor aircraft toward attacking planemous under the SAGE system, electronic dayters perform hundreds of empire computations ecurately and simultaneously. Contracy to some people's belief, however, SAGE does not think. It gathers and stores formation and presents a putter on which man can act, SAGE does not unifer the well trained and preferent for well trained and preferent personnel. It enables such presumed to do a better job.

Designed for Present Threat

Designed for Present Threat

Project for Present Threa-"The SAGE system will per-mit us to meet the combined mattined jet sirvenit and sir-breathing missile threat as one concise problem rather than as a series of varied problems. The increased polyformance capabil-ties of modern offernive wea-pons ante-latics the old decen-posis ante-latics the old decen-realized momental system faith a tralined manned system fuch a system caused passibly cape with a musa attack. The populor we find as EACE came about



this SAGE Sector in USAF; Inrough a breakthrough in computer techniques which permits automatic combination of interest of radars over an extensive sere. This in turn, newtices information sufficient for proper control of modern high-speed defensive weapons against the stacking force. The end results that SAGE makes the fundamental concept of a coordinated in tattle and a defense in depth a practical resulty.

In SAGE Already Obsolute?

Is SAGE Already Obs

Is SAGE Already Obsolet?
There has been discussion in some quarters to the effect that SAGE is already obsoleteout because of the hypersonic ballimic missile threat. I place no exchange in this belief. It is true that SAGE does not have the capabilities to track, exceed, and control nitacks against loyer-conic ballistic missile type weaponst As yet there is no defense

(Continued on page 2)

The Man Behind The Gun



FREEDOM FORCE GUARDIAN

THE COMMAND POST Hendquarters 26th Air Michiga, (testense), Rendyn AFS, Raniya, New York

is an official Class 4 Air Force newspaper published monthly by and for the personnel of the 20th Air Division, Air Defense Command. Opinious expressed herein do not necessarily represent those of the Air Force.

Beigndier General Arthur C. Agan, Jr. Commander

First Lieutenant Lloyd V. Morris Chief, Information Services First Lieutenant Danz E. M. Kennan Internal Information Officer

M/Sgt. Harry D. Briscoe Editor
T/Sgt. Donald L. Polglase , Photographer
A/SC Constance L. Hill Circulation Manager, Reporter

'SAGE Is Indeed A Mechanical Marvel'



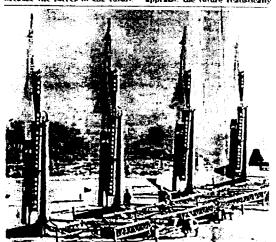
opinion, SAGE represents the like improvement of the sir data in the part 10 years.

Con, LeMey (Continued from page 1)

(Continued from page 1) and the second secon

will be mixed forces—that is, composed of various types of various types of various types and appearance, supersonic and appearance and control attacks against both the subsonic and supersonic treatment.

Staying Abend in The Future In concluding this remarks. General Leblay fild, This process of looking Injo the future always has been important to progress. Today, the ability to appraise the future realistically



command incurrent arms arms of the United States Army Defense needling pattern ever a neerby city, respon presently in operational use MIKE installations are located at weepen presently . NIKE installation



fant Secretary of AMC Commander, prior to presenting SAGE-light pun Sarie E. Partridge (left), CINCNORAD. m Gon. Edwin Rewlings (co

al as a nation. There is a great deal about the future that is uncertain, However, there is no innectaining about the fact that is uncertain, However, there is no innectaining about the fact that is the hold in
lose faith in our shifty to stay "Slaying ahead, however, is not going to be easy. We all trace that in some aspects of the race, the Sevicts are already ahead. This less must not be permitted to fail. Here tonight, in the establishment of the New York AIT Defenie Sector of the SAGE system is a good exampte of what Americans can do when the desire and setermination are strong enough."

General Leplay's audience at the Bunquel was compassed of over 400 distinguished excess representing judgetry, the press and the military. Among those acuted with General Leafing at the head table here the chief

officials of the eight major industried contributing to SAGE,
Congressman Vincent J. Dellay
of New Jersey, Mr. Peter J.
Schenk, President of the AF
Association, Generals Partidge
of NORAD, Atkinson of ADC,
Rawlings of AMC, Underhill of
EAUF, Stone of Atlantic Division MATS, Again of the 28th
Air Dividion, and Col. Chandler,
New York Air Bofense Sector
Commander. A special guest was
Mr. Thomas B. McGuire, Sr.
Gather of the Index Afr Force
Major for whom McGuire AFr:
to named is named

THE UNITED STATES AIR FORCE THE AIR DEFENSE COMMAND

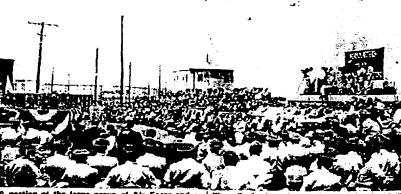
Cardially Survey You to Participate

In The Semi-Automatic Ground Environment Dedication !

Of The New York Air Defense Sector McGuire Air Force Base, New Jersey

On The Livelly Sixth And Twenty Seventh Of June Nanetoen Hundred and Fifty Eight

A Lot Of SAGE Backers



a ci:llian dignitaries : 27th, Mr. William E. &

SAGE Has Its Beginning In Teamwork Among Science, Industry, Military Services

Rapid Buildup Follows Long Range Plans, Early Air Force Acceptance

"SAGE represents an outstanding mampin of what can be accomplished by proper teammorth between the accomplished community, industry, and the suffliant pervices," and General Carrie E. LeWay, speaking to an estillation at the idealization confined to me addition at the idealization confined the property of the New York Air Dulemas Sector at McKnire. AFB.

"All of you are undoubtedly aware that house research conducted at BUT resulted in the digital computers," the hoise for BAGE, and ham fold that the combined colored and destinated enterty and the occurred development of the overconstal development of the military will always be required if we are to take devery possible advantage of sweeping technical advantage of sweeping technical advantage of sweeping technical

advances as they occur."
Remarking at the extremely short time in which SAGE was developed, Genherd Lathiny wenter to say. "I think it also interesting to discree that SAGE is NOT a modification of an exhiting system, but a described y new system constraints an improvement of great magalitude. Furthermore, SAGE was the Air Purce, decided to go them they will the project. To know designed, produced and installed such a compiler system in four years is a real technical and ingicile triumph."

Development of SAGE

Politowing at nature.

Politowing the recommendaplone of a group appointed by
the Air Force to study the problems of air defense, and a demon stration by the Whirlwhild
I computer at MIT of the unconstitute of automatic data processing in an air defense system,
the Literalm Laboratory was

mology, statute request of the Armod Services.

in 1633, the Laboratory submitted a propisal for the SAGE system, which was subsequently breaked a propisal for the SAGE system, which was subsequently breaked a propisal the Laboratory has been the develop and development of the SAGE system, with cooperative assistance from many other argunizations. The lask has included research and development of equipment and solber component of equipment and solber component partia, system design and sufficiently, and a full scale testing program of the men system.

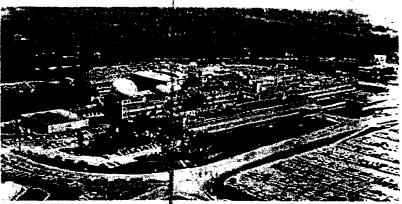
Company of SAGE

The concepts of SAGE

The concepts of the SAGE
guidan evolved from the studies
of the Alt Defones System englacering fathandities (AUSEC)
under the challemanistip of Dr.
G. E. Valley, Professor of
Physics at 2017. Perhaps the
most besic, drightal concept of
the new grand contrastions
and the second of the ADSEC, was
the automatic franconstant
the automatic franconstant of
radar data and the utilization of
a varianised effectionic conratar data and in utilization as contralined effectionic com-puter systematic furnish the im-proved teaching and weapon bounting expabilities required to copy with gases air ratio by an encode

Experiments with Whiriwind I Cheeringary was consistent to explore the feasibility of this collecte was a series of experiments at MIT using the Wildwind I digital computer. These experiments proved that a digital computer could accept and

BIRTHPLACE AND FIRST HOME OF SAGE



of Technology Lincoln Laboratory

process, with extreme sapidity, data received via telephone lines fram a radar, and could present almost instantaneously, a visual display of aircraft tracks within radar, range. What'veind 1 also demonstrated the capabilities of a digital computer in guiding and directing interceptor air craft to attacking enemy bombers.

The Cape Cod System

The Cape Cod System

(laying demonstrated with
Whitriwind I the capabilities of
a digital computer to perform
the difficult dotableading fortions required for air defense,
the first major siri-defense assten task for the new Laboratory
was the design and construction
of a latoratory model.

This model system, located in
a siter w Massachusetts and
known as the Cape Cod System,
covoluted of a long-range radar
and a petwork of small radar
(as defecting low-flying abrerat),

anillan facilities, a omnunications in air communications and the MIT Whiriwind the with its accompany drieuse direction center

SAGE Equipment

White MIT's Whirtwind I had ununtrated that a digital com-iter could handle the air traf-anticipated during an enemohe anticipated during an enemy attack it nevertheless was not ideally suited to the job; the need wie, for a computer designed specifically for all distense purposes. Similarly, the eneed for highly specialized components in other areas for the SAGE system, which took advantage of the very takest developments in research was indicated.

dicated. It was at this point that many other undustrial and public service or anizations, both large and snall, phined the SAGE team, either in research and development tasks or in some other type of assignment essential to the new system.

The score marks before the other teams are the state of the teams and the state of the teams.

The seven aught industries participating, in addition to Lin-cula Laboratory, and their major contributions are as fol-

tours:

IIIM Corporation: Responsive to the Alf-Force to work with Liment tabs on the task of developing at consoner designed specifically for air detense purpose, 113M designed the AN FSQ 2 SAGE Computer With an information across time of six microacompts (or six millionths of a wayner, and an ability to store up thousands, of hits or informalign densied, of hits or informalign decidely and except the informalign decidely and except the informalign decided to the require SAGE computer was considered admirably mitted to the require-

ments atpulated by the Air Force. The computer profited by a new MIT technological development, the use of ferrite core, or computer momories, which resulted in an increase of speed, flexibility, med reliability.

Bendly Aviation Corporation: The task of developing heavy rodars and Gap Filler radars foit to Bendix, Working with IBM, Bendix radia division discovered the SACE computer input System—a system where by data from longrange and system, and the MIT Whitefulad I compared with its accompanying all differed direction center facility. I. Berly in 1933, the canclusians and recipining actions of the laboratory were automatically. Benedic Aviation Corporation the proposal, proposal, but the Air Force on the firm of a proposal, but the lay of developing heavy one of the law of the l

Did You Know

THE SAGE COMPUTER:

THE SAGE COMPUTER:
Can perform 65,000 computations per second?
Requires 850 billowaits of electrical power—enough to supply a fown of 15,000 infinitizants.
Weighte 275 tons—occupying as much those space as 24 are rage-sized ranchestyle homes?
Uses an 800 ton alrecondition or because computer generated feat is coungly to confortably heat is coungly to confortably heat for being with an average misside temperature of 20 degrees below Zero?
Consists of 267 more will-over 100 display consolers.

Consists of 267 tents culturer 100 display consoles."

Has a magnetic gore memory under up of four units which contain a total of 557,055 meaning 1-16 of an inch in diameter?

Consists of 50,000 vacuum-tubes, 123 mites of mercual wiring, and 919 miles of extern al wiring, and 919 miles of extern al wiring and signal cables?

Cannot fibris, but depends up on highly-skilled personnel to and act effectively on the information it makes available to swilling.

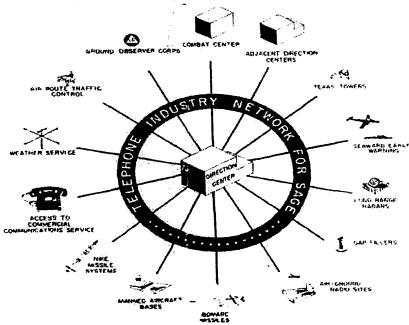
swiftly? THE INPUT SYSTEM: Which translates

Which tenuslates incomes: radar information into comou ter language, requires 11.47:

radar information into contour ter language, requires 11-47; excuting tubes and 20 miles of springs.

FIR SAGE POWER SYSTEM.
Supplies 10,000 kilowatts of direct current power-enough to supply the electrical resourcements of a city of 18,000.

Components Of a Typical SAGE Air Defense Sector



AIR FORCE GUARDIAN FREEDOM

COMMANDER'S COLUMN.

Since its activation early in 1949, the 26th Air Division has been the nation's "pioneer" among air divisions frequently called upon by the Air Defense Command to perfect and implement new concepts, weapons, and techniques in the conduct of air defense, the 26th is soon to be activated as the country's first SAGE Division.

duct of air defense, the 16th is soon to be activated as the country's first SAGE Division.

As General LeMay said, speaking at the New York Air Defense Sector dedication ceremonies list week. "... SAGE does not think. It guthers and stores information and presents a picture on which man can act. SAGE does not neitify the requirement for well-trained and proficient personnel. It enables such personnel to do a better joh."

Despite the complexity and efficiency of our new equipment, the strength of the 26th Air Division still lips in its mean. Once ugain we have been called upon to pioneer. The measure of our success in operating SAGE — which has been called the grantest advance in all defense in the measure of dedication fod positions—depths upon the measure of dedication fod positions. Through the medium of the "Command Post" at will attempt to keep you should the Command Post within the profit of the profit of the measure of the complex of a large tour — coponible for the activities of a large tour — coponible for the activities of a large tour — coponible for the activities we are soon to undertain, and appreciate the acceptabilities we are soon to undertain, and appreciate the acceptabilities we are soon to undertain, and appreciate the acceptabilities we are soon to undertain. And appreciate the acceptabilities we are soon to undertain.

Rapid Build-up

(Obtained from page 3) reders now in me. This informa-tion as transmitted via the input against into the SAGE computer. The AN/SST2 convert the raw rader signals into a smable form without degrading radar.

System Develope ayanus feeting with Lincoln, SDC prepared the basic computer of the basic computer programs, including accessary windificultions for adaptations. These programs contain, in committee increases the management of the contain. tion to the milital SAGE herialia-tions. These programs contain, in computer language, the many thomsands of instructions re-quired by the computer for the processing of radar and other information. The processed data serve as the lusts for human de-cisions, and for the automatic computation of weapon control orders: SDC has permanently assigned trained specialists at ARTHUR C. AGN, IR. Brigadier General, ISAF Commander

each SAGE Sector to further programming and trading for

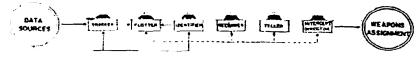
each SAGE Sector training for SAGE.

Wester Electric Commany
Along with the Bell Tylephone
Laboratories, and other misses at
the Bell Systems, Western Electric became signetated with the
SAGE development, in feeling of
the ground communication system required for SAGE, in addition, the responsibility for thy
design and constitute for thy
feeling and Comban, Orgaler,
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constitution and dell the conticity of Command and the first of a
commence to the present of the
Commence to the present of
the rell of all the sumy other
contributors to SAGE, mech as
the independent fellephone companier, subcontroblers and various Ate Force Commission, as
well as agraries of the Army,
Navy, and government.

The Experimental SAGE Sector
The neal phase in the feeror
openent of SAGE windle evolution from the-Laboratory-built
Cape Cod System in it (althorator
courseling and all defense sector
tion from the-Laboratory-built
Cape Cod System in it (althorator
courseling all defense sector)
with greatory-built
countries of the control of the concountry of the control of the contrem the all the sectors.

Cape Cod System.ta a fail-ease caperimental air defining sector, equipped with prototypes of newly designed apmonents. The area of coverage pars increased by the addition of mere raders. Other types of data in puts were linked to the system. An Air Defense Direction Con-

MANUAL SYSTEM





A troical AN/FST/2 site rep d space halow while an

ice was constructed at Lincoln Pliant support for legting and by the Cambridge Research and Development. Command, by the Strategic Air Command, by the Naval Air Devolupment thrust South Western and Strategic Air Command, and by the Naval Air Devolupment to South Wermouth, it associusetts: A complement of Air Feore perponnel was activated to operate the sector.

to operate the sector.

When completed, the experimental SAGE Sector was, in all emertal aspects, a prototype ground environment, capable of executing all of the function required for all defense.

The ESS was subjected to an exhaustive testing program to demonstrate the adequacy and compatibility of the equipment and the system, and today continues to function to the retinnes to function in the research and development and sexpansion of Principal Costs Of

BAGE Froves Itself

Having proved its adequacy
in fulfilling the specialized requirements for all defense,
AGE Direction and Conduct
Conture were constructed at
turious jocations within the con
tinental U. S. according to Air
Defense Conjunant slams. The
equipment for SAGE went into
ecodyction.

On July 1st, the first SAGE,
Direction Center in the matten
herame operational "The New
York Air Defense Sectoria mon
uncental example of behavers
between science, industry, the
military, and many other organtrations, foressed upon the need
for the steat efficient and infortive air defense for America.

Brief Ceremonies Open First SAGE Unit At McGuire

Coronautos dedicating the New York Air Defense, Sector as the first operating \$46E guilt were withessed on 1/52 27 by a group of over 400, composed of high-ranking crystial, and military persons, including representatives of TV. Radio and the Press.

stary persons, including reprisentatives of TV. Radio and the Preza.

This mitdom ecromony, hald adjacent to the SAGE block-house, hegan with the passing of the symbolic Total gur'i from Mr. William E. Bucke, a vice-president of Western Electric, to Gen Edwin Eawlings, commander of the Air Material Cammand, General Bawings oresented the light gun to the Fon. Rich art E. Horner, Assistant Secretary of the Air Force for Research and Development, who formally necepted the SAGE facility no behalf of the Air

Ceremony Paid By Major Industries

As SAGE has been a team-sork venture from the begin-ous, the coats for the bacques and activation eventually serve shared by the major industries contributing to SAGE growth and development, with the Air Force and Air Defense Com-mand picking up a small pur-tion of the tab The eight major industries

tion of the tab

The eight major industries toxice the Banquet, provided informational kits for members of the visiting press, set up and staffed displays of their contrilutions to SAGE and provided for other facilities for the concontents of minets.

for other facilities for the con-contenes of guests:

Public Relations staffers from each of the industries worked with New York Air Defense Sector Office of Information Services personnel in setting up-and maintaining a Press Center at McGuire for Visiting news-tancement. papermen.

Force.

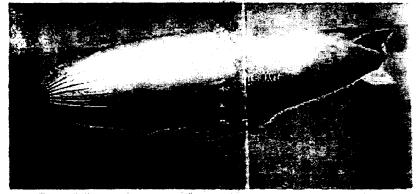
Mr. Horner than passed the light guo to General Parie E. Partridge. CINCNORAD, who called Gol. Charles G. Chandler, Jr., to the stand, congratulated him on being the first demnander of the New York Air Defense Sector and Said. "I will expect you to be operational in the System on July 1st."

NYAIN, the first SAGE Sector to become operational, will seen be followed by other SAGE Sectors across the country.

"We must face the fact that, "We must face the fact that, while we are trying to help huild a world of freedom and justice among aweerign people, the masters of international communium are working constantly to trait down this kind of world."

President Eisenhower

RADAR IN THE SKY OVER THE ATLANTIC



The meditied ZPG-2W Airship, manufactured by Sendinger Aircraft Corporation and a votoran of Goodyper Aircraft Corporation and a votorian of World War II corver occirt dely is now:a full time partner in the air defense of North America. The Airship leaded with the largest airborse

ender artherna in existence has taken its place on the North American Air Defensa (NORAD) picket: line in the Atletic Ocean. The large an-tenne is located in the 1,000,000 cubic foot en-velope.

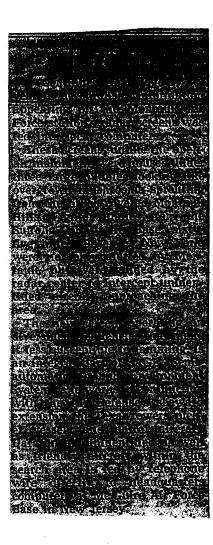
AIR FORCE GUARDIAN FREEDOM

chaper this of cry however though remains all strict from the sever story of the butter recting the appreciation of the personal decreases which enemy in since so sever the been all south of the several south of the several decreases and the several de epot since to distribute 1970/10. Set up the selection to the new production of the Moneyus 1970 to the design dreams of manual Moneyus a device, obesides 1970 to 1970 to 1970.

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3.5

TEUNICE TREES UCKEC O THE MEN. AND SERVICE TO THE MEN. dreams of mining Montauk a device, operated to said portion entry for New York City. Radar Squardon, a past of the Mining those despite was use twenty striketiscipal to also contact of mining the said to the device said the said that the the sai This highly seasitive mechanic These were hull to the second



are true and a confidence and Specifical life of the will enter a life A SERVICE CHARGE THE PROPERTY OF entropies and a property Barrer Victoria Contractor to Contractor coun-country of the country of the

EAST HAMPTON, N. Y., THURSDAY, JULY 26, 1962



EXPLOSIVE ITEMS, many of them "live," are inspected by the disposal feam which rounded them up and destroyed them in late June at Montauk, Left to right, Sergeant Russell H. Price, Jr., Chief Warrant Officer Frank R. Chieffo, Sr., Sergeant Richard Sauter, and Sergeant Harold L. Childs, Jr. 1984 1988

Muzzleloaders To Rockets

The Old And New In Ordnance Found On Montauk Point Beach

The old and the new in explosive items were found on the beach near Camp Hero and the Air Force Station, Montauk, in late June, after discoveries by strollers prompted a thorough search by ordnance experts.

A skindiver, walking along the beach, found a 90-mm projectile, and notified the Air Force. Before the search was over, an explosives disposal team from Suffolk County Air Base had found over 200 missiles, ranging from small modern rockets to ancient cannon balls.

Five miles of beach were closed for the three-day search after the items were returned to the Westhampton Air Base for detonation. Most of the rocket motors, fuses, and artillery projectiles were too rusted to strip or destroy by any other means.

Air Force officials theorized that the projectiles were probably washed up by the March storm.

nonballs, solid and hollow shells,

ranging in diameter from four and onehalf to six and one-quarter inches. Similar balls were found imbedded in the cliffs several years ago by a team of civilian skindivers doing historical research.

There were over 75 practice rockets, many modern projectiles

and fuses, an intact hand grenade, 70 rounds of assorted ammunition, and several unidentified objects.

Some of the cannonballs may date back to the Revolution and War of 1812, when American and British warships apparently used the Montauk bluffs for firing practice. Other items may have been left there after the Spanish-American War, when Theodore Roosevelt's Roughriders camped at Montauk.

Army artillery practice was carried out at Montauk for many summers between the Spanish-American War and World War One, and the Navy frequently held firing practice in nearby waters. During World War Two, there was a large Coast Artillery installation at Camp Hero, then a Fort.

The most recent projectiles, the 90-mm shells and the practice rockets, apparently date from the Korean War, when Army antiaircraft artillery and rocket practice was held at Camp Hero. Several rockets were dated as late as 1953.



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Among the discoveries were cannonballs, solid and hollow shells, ranging in diameter from four and onehalf to six and one-quarter inches. Similar balls were found imbedded in the cliffs several years ago by a team of civilian skindivers doing historical research.

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Montauk Air Force Station

Seen from the air, the Montauk Air Base looks like many of the small fishing villages found along our coast; that is with the exception of the large radar with its 10 story high antenna. From the neat white cottage with cement inner walls to the church like gymnasium, the whole camp was originally designed to look like a sleepy fishing village.

It was felt that during World War II that any invasion attempt by enemy forces would occur at this isolated. sparsely populated end of Long Island. The four huge 16 inch guns stood ready to defend if such an invasion occured. Thick concrete walls and ceilings all topped by several feet of dirt, makes these emplacements the safest

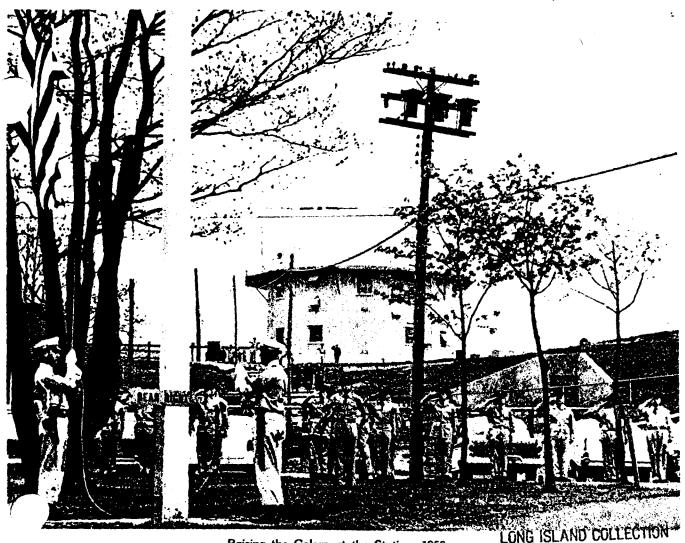
place to be for any calamity.

Following World War II, Camp Hero was deactivated and used for two week training periods in the summer for Army Reserve units. On November 27th, 1950, the 773rd Aircraft Control and Warning Squadron was activated and made its home on the Western portion of Camp Hero. At that time the name of the base was changed to Montauk Air Force Station.

The Squadron was assigned to the Eastern Air Defense Force until February 6th 1952. It was then assigned to the 26th Air Division. From then until October 1958, the 773rd provided surveillance for the detection and interception of all aircraft entering its area of responsibility. Because of its location, guarding the approaches to the New York area, this site was one of the most vital links in the nations aerospace defense network.

As the speed and performance of manned aircraft increased, and the use of missiles was apparent, it was felt that the concept of manual air defense operations was not adequate. It was at this time that the squadron was assigned to the New York Air Defense Sector on January 8th 1957. The Squadron continued its Manual Direction Center, while preparing to take its place as a link in the 'SAGE' system (Semi-Automatic Ground Environment).

Finally on October 1st, 1958, the Squadron was redesignated as the 773rd Radar Squadron (SAGE) and acquired a new mission. The AN/EPS-35 was installed



Raising the Colors at the Station, 1958.

East Hampton Library 159 Main Street EAST HAMPTON, N.Y. 11937 51 (Radar Screen) and commissioned in September 1962. It is serial number 2, at one time there were seven of these radars in the Air Force, there are now 4. It is 160 ft. from the base to the top of the Omni-directional antenna, the main sail is 126 ft. long and 38 ft. wide. The reflector/sail weighs 40 tons, the base weighs 30 tons. The antenna is powered by 6 100 horsepower motors at a speed of one revolution every twelve seconds. The six motors are sequenced on at different times, they do not all start turning at the same time. This is to lower the stress, the system was designed in the early 50's.

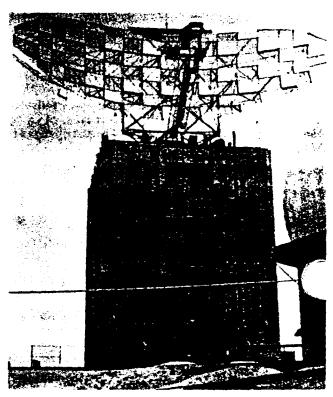
The AN/EPS-35 is referred to as the search radar. Its

function is to determine how far away an aircraft is by transmitting a signal and receiving the return signal as it bounces off the target. The second type of radar in Montauk is called the Height Finder Radar. Its func to determine the altitude of an aircraft. This one installed in March of 1962. It is housed in a two story building 50 feet high and 50 feet square at the base. The Radome is made of rubber 1/2 inches thick and is kept inflated by blowers.

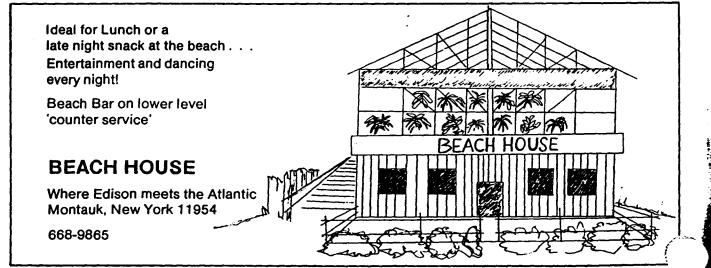
The tower is painted international orange and is quite a landmark for the local fishermen. It is rumored that this was done as a community relations project.



Officer's Club at the Station.



The Radar screen and tower on right, picture taken in 1958.



Airforce Station

Montauk's geographical location made it a prime pot for the German's to land in World War II and possibly invade this continent. Extensive preparations were undertaken to protect this area at the Airforce Base. Four massive 16 inch guns were set up in impregnable gun emplacements. The guns have been dispossed of long ago, but the emplacements are all there.

We had the good fortune to meet Edwin Tettemer, now living in Huntington, New York. He was in charge of construction when all this was being built. He recalls how the first 16 inch gun made its way across the Shinnecock railroad bridge. The bridge vibrated so, they were afraid to transport the others in the same manner. They were put on barges and towed to Fort Pond Bay and then transported to the base on flat bed trucks.

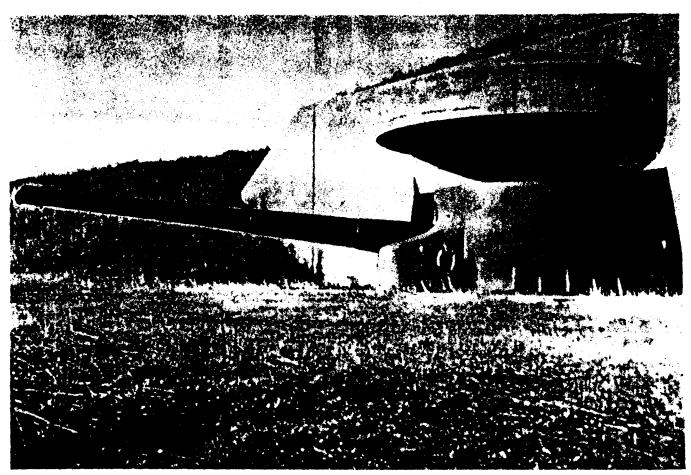
The gun emplacements are still awesome. They run for 620 feet underground with massive steel girders holding up tons of cement and soil. One gets the impression that you are in a huge underground vault. Large steel bays are built to store the 'ammo' needed to feed the guns. These are now used for various storage purposes, and are all humidity controlled.

Each emplacement is self-contained with its own

power plant, water supply and utilities. Fortunately the guns never had to be used. They were fired once and after the war were cut up for scrap. Some of the natives will tell you that when they were fired many windows were broken in the area from the reprecussions.

After World War II the purpose of the base changed as did the personnel and that history can be found in this book in another article. However, many of the airmen stationed there and the civilian personnel still live in the area, or married girls from here. John DeSousa came to the base from Cape Cod in 1956. He was a Sgt. in the Air Police, and recalls many happy moments spent there.

They had a 1 o'clock curfew that caused many an accident on the Napeague stretch of road with airmen trying to beat it. A very interesting event of the time was at the climax of Winnie Gilmartin's daughter Barbara's wedding to Lt. Sullivan at the Little Flower Church. Airmen in cars outside of the church were in communication with the Westhampton Air Force Station so that at the precise moment the newlyweds came down the stairs outside the church a squad of planes flew over to salute them. The Sullivans are now in Saudi Arabia, Mrs. Gilmartin still lives in Montauk.



Rare photo of 16 inch gun at the Air Force Station.

THE STAR GOES TO:

The Montauk Air Force Station

Force document, "to support and 24-hour basis." participate in all allocated operational training requirements while tauk was considered a good assign-ducted on Eniwetok Atoll in the 21st Air Division is in a Mode I, ment or not. "I would say a good Pacific in 1958.

Mode II or Mode III configuration." assignment, by and large. Some of I asked Major Zarn which of his Now that you're all straightened out the younger, single airmen find a stations had pleased him the most. regarding what they're supposed to lack of recreational opportunities He stated that Athens (where he do, it might be a good idea to tell during the winter, but most of the had been Chief Telecommunications you who they are.

The Squadron is part of the SAGE Environment). This demonstrates is an East Hampton Village policethe lengths to which the Air Force man. "You've come to the right perwill go to provide us with a pleasson; guess who does most of the
pressions into data by computer, and
ing acronym. Just think, it might work around here?" she jokingly
this data is then sent, via an Ameror HAGE (half-automatic) or even ly. RAGE (Radar Automatic Ground Environment).

the 773rd for taking second place count beads." in a fire protection contest, and a Defense McNamara, Secretary of Theater. the Air Force Brown, Generals Mc-

Part of Chain

Major Zarn was in conference and I talked to Base Personnel Officer, Lieutenant Charles Lewis, a native of Florida. "We have 175 men on the base. SAGE, a part of

The 773rd Radar Squadron is sta- Air Defense Command, is a chain of has served in England, France, Beltioned at Montauk Air Force Sta- radar stations that conducts long gium, Germany, Okinawa, Korea, tion with the mission, among other range surveillance to guard the At- Alaska, and Greece, in addition to things and to quote from an Air lantic approaches. We operate on a many bases in the Continental United

men like being stationed here."

I next talked to civilian secretary "Alaska, a close second." system (Semi-Automatic Ground Helen Eichhorn, whose brother Bob nave been PAGE (partial automatic), asked. "You do," I guessed correct- ican Telephone and Telegraph link

out and invited me into his office. and take appropriate action." To find out what the 773rd The first thing I noticed was a glass I asked Major Zarn what he con-Squadron really does, I stopped by case attached to the wall behind sidered to be the biggest problem the orderly room and asked to see his chair. Inside the case was dis- facing the men on the base in re-Major Robert W. Zarn. The orderly played a double strand of decora- gard to the civilian community. "I room displayed a 24-hour wall clock tive beads, along with the legend, would say off-base housing. Because (it was 13:20), a plaque awarded to "In case of panic, break glass and the area is primarily a resort one,

dozen small photographs that illu- electronics staff officer and has been afford. Outside of that we have no strated the chain of command; start- an officer for 16 years. Prior to major problems. ing with President Johnson, and that he was an enlisted man during working down through Secretary of World War Two in the European church groups, particularly Rev.

Connell, Reeves, Thatcher and Austin has studied at Mississippi Southern single airmen, but we have movies down to base commander Major University, the University of New on the base three times a week, plus Zarn. Presumably out of modesty, Mexico and the University of Mary- gym equipment and a hobby shop Major Zarn's was the only photo- land. He came to Montauk from the and another shop where they can graph not bearing an identification 664th Radar Squadron in Belle-work on their cars. A surprising fontaine, Ohio.

> Well-Traveled A well-traveled man, Major Zarn

States. He also served with Opera-I asked Lieutenant Lewis if Mon- tion Hardtack, the atomic tests con-

Officer) was his favorite, with

Major Zarn outlined the Squadron's to Maguire Air Force Base, where At that moment Major Zarn came other computers interpret the data

rents are quite high, sometimes Major Zarn is a communications higher than our airmen can really

"We work closely with the local Friend in Montauk. It is a little He is from Two Rivers, Wis., and bleak here in the winter for our number of our airmen come from this area.

"Someone did a survey and it



ANOTHER STEP up the ladder for 15 Airmen at the Montauk Air Force Station, recently promoted another grade. Arthur Roth Photo

turned out that 75 per cent of our built the radar dome and support- prevalent in the community outside airmen come from within 150 miles ing equipment. of the base; from Long Island, New York, Massachusetts, Rhode Island, Connecticut, Boston, places like that."

Booklet

On my way out, Major Zarn handed me a booklet that gives a description of the base and supplies per-tinent information to incoming air-one might falsely draw the conclumen. From it I learned that Mon- sion that topless suits are fairly tauk Air Force Station was constructed in the early 40's, for the Army, and had originally been built to resemble a fishing village to disguise the fact that it was really a Coast Artillery base called Camp Hero. After the war the camp was closed down, but in 1950 it was reactivated and part of it was turned over to the Air Force, which then

A couple of other items in the booklet caught my attention. In describing the Village of East Hampton, the booklet warns that, "Topless bathing suits are not permitted on the beaches." As this warning is missing from the descriptions of the environment" really means.

of East Hampton Village.

And, finally, Springs is described as "... a new community between East Hampton and Amagansett, It is a typical resort area. . ."

Despite the booklet, I still don't know what "semi-automatic ground

The New York Times

2 Youths Walking by the Sea ... Then the Shooting Began



Navy men setting out buovs off Montauk Point equipped with radar reflecting devices for detecting submarines.

CAMP HERO, Montauk, L.L. July 22-A force of about 100 men turned back a commando invasion from the sea in a predawn war game today.

For the combatants, it was a strategy of stealth and security. But for two bystanders, is was a surprising

The defenders were the Third Naval District's Naval Reserve Inshore Undersea Warfare Division, who were participating in Operation Small Fry, the first reserve exercise designed to test the operational capabilities of mobile equipment, contingency plans, and forces available for the protection of the sea approaches to the continental United States. There are 22 such divisions to help provide protection for the nation's ports.

Seal Group Invades

The invaders were a team of Seals, the regular Navy's special warfare group skilled in sea, land and air tactics, similar to the Army's Green Berets, and referred to by the defenders as the "superhumans."

The commandos, who left their submarine several miles offshore, landed in a rubber raft late last night on a rocky beach between the lighthouse and this old abandoned Army base.

The reservists, on their annual two weeks of active duty, had pitched their tents, set up their sophisticated radar and sonar equipment and sandbagged a former gun emplacement for an observaclimbed the steep cliff near the camp.

"We didn't see any signs, except one that said, 'don't walk here-stop erosion," he explained.

When they reached the top of the bluff, however, they heard shots and then, over a loudspeaker, someone said, 'Stop and advance."

ridiculous." Andy, who was drafted by the Army three months ago. "It's the last thing you'd ex-

pect, a very bad scene."
"We had walked past a little rubber raft, but thought it was just some guy and his ." Tom said.

They were placed in custody with some captured commandos until the defenders could check them out. Their status as "foul balls" was confirmed when one of the "dead" commandos said, They're not with us."

n the tower, Peter Teischn, a quartermaster in the rve and a textile manuaurer from North Haledon, J., said that "that damned

Cmdr. James G. Lindley, a vice president of Manufacturers Hanover Trust Company, assembled his defenders just before dawn to tell them they had "done an outstanding job" and to read a message from the submarine that its men "will be sure not to take liberty at this camp."

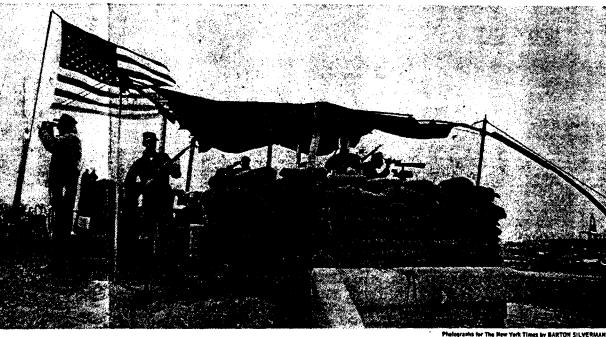
The commanding officer of the commandos praised the defense, saying they had not expected it to be so tight. The defenders set up camp early

last week and did not know when the attack would come. The commandos "only had a Long Island road map."

In addition to the two youths who were released, five commandos were "killed" or captured before having to rendezvous with their submarine, the Entemodor.

The exercise also involved antisubmarine with other units of the Navy and Coast Guard. Several submarines from the naval base of New London, Conn., passed through the area and were picked up by sonar devices and "killed" by the destroyer Pierce and helicopters.

Lieut. Russ Moehlich, the perimeter defense officer and chemist from Springfield, Mass., pointed to the American flag fluttering in the breeze above the tower and said: "That's what it's all about, what we're here to



Photographs for The New York Times by RAPTON SILVERSAM Observation post at Camp Hero, Montauk, where Naval Reserve Inshore Undersea Warfare Divisions, on annual duty, were holding beachfront

tion tower on a promentory at the base of which stands the shell of a former resort

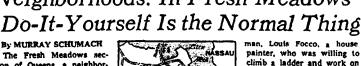
The two bystanders who stumbled into the floodlights and gunsights of the defenders were Andrew Hirth and Tom Lehane, both 19 years old and from Freeport, L. I., who had come to Mon-

nothing to do at home." They had parked their car at the lighthouse and walked down to the beach late last night. They saw some lights, and being curious, according to Tom, who is in the Marine Corps Reserve,

tauk simply "because we had

Neighborhoods: In Fresh Meadows

By MURRAY SCHUMACH The Fresh Meadows section of Queens, a neighborhood of tree-shaded streets, trimmed lawns and hedges and lots of playetrounds, is



rapidly becoming, of neces-sity, a sort of vocational school for homeowners

painter, who was willing to climb a ladder and work on parts of the house's exterior.

Next door, Mrs. Katherine watching her Ohnik and a few of three blash in a small



Two youths from Freeport, L.I., wandered into middle of war games and were captured. They were later released.

they were placed in cus-tody with some captured commandos until the defend-ers could check them out. Their status as "foul bails" was confirmed when one of the "dead" commandos said, "They're not with us." In the tower Peter Teisch.

In the tower, Peter Teischmann, a quartermaster in the reserve and a textile manu-facturer from North Haledon, N. J., said that "that damned lighthouse doesn't help things—there's nothing to lose your night vision like white light."

white light."

The commandos were unable to break the defense. After several hours of infiltrating through the bayberries and shad bushes surrounding the camp, one Seal who was "killed" (only blank cartridges were used) threw up his hands and pointed to the sky. "That's the way we should have come in," he said. eaid.

The commandos were equipped with "starlight scopes," flares, knives and revolvers and were trying to reach the camp's generator.
The heart of the camp was several equipment vans in which technicians collated information on unidentified undersea, surface and air

Do-It-Yourself Is the Normal Thing

By MURRAY SCHUMACH

The Fresh Meadows section of Queens, a neighborhood of tree-shaded streets. trimmed lawns and hedges and lots of playgtrounds, is rapidly becoming, of necessity, a sort of vocational school for homeowners.

The men are becoming carpenters, painters, plumbers, electricians, stonemasons. Their wives are papering walls, coddling miniature wans, coddling miniature swimming pools, gardening in backyards.

"Around here you either become handy or a pauper," says Nathan Lubinsky, who owns a house on 186th Street,

owns a nouse on 180th Street, near 58th Avenue. In this neighborhood, where incomes range be-tween \$15,000 and \$30,000, homeowners did not have to read the statistics issued this week by the Department of Labor to learn that it had Labor to learn that it had become expensive to main-tain a house in the metro-politan area. The figures showed that in June the cost of home ownership rose 1.5 per cent over last year. Fresh Meadows was named



after a golf course. On the site of the golf course there is now a New York Life Insurance Company development of garden and high-rise apartment houses. Most of Fresh Meadows's 30,000 res-idents, however, live in onefamily homes.

Mr. Lubinsky was probably one of the luckiest of the 'area's homeowners yesterday. He had found a young

man, Louis Focco, a house painter, who was willing to climb a ladder and work on parts of the house's exterior.

Next door, Mrs. Katherine Ohnikian was watchin three children and a their friends splash in backyard pool.

"We hardly ever call anywe hardly ever call anyone to fix things in the house," she said. "My husband paints, he does electrical repairs. He put in the pool. I'm the gardener. I planted tomatoes, cucumbers, parsley, carrots."

All in Favor

With a handy husband, Mrs. Ohnikian thinks they did well to buy in Fresh Meadows about six years ago. "It's a good place to raise children," she says. "The schools are still all right. The volunteter have electric the schools are still all right. youngsters have plenty of friends and there's lots of room to play."

On a grassy baseball dia-mond near Cunningham Park, mona near Cunningnam Fark, a band of teen-agers hustled after fungo grounders and fly balls. They were tanned and exuberant, but not too intense. As members of the Fresh Meadows Athletic Club, Fresh Mendows Athletic Club, a team in a league sponsored by the Parks Department, they were just practicing and did not mind taking a break to talk about their neighborhood.

They all liked the area. "We got parks with rabbits in them," said ona. "You take the but and worre in Shea

the bus and you're in Shea Stadium in 15 minutes," said another. "It's like being in the country and the city at the same time," said a third. They told about hitchhiking

to Jones Beach in less than an hour and about playing under lights in a school ground.

The Over-All Vi

In supermarkets, women were quick to cite examples of the high cost of maintaining a house. "It had a leak in the basement," one said. "We called a plumber — \$250. You want a liftle piece of railing put in—\$185. So we'll do without the railing." railing."
But as she reflected on the

advantages of living in her own house in Fresh Mead-ows, she added:

ows, ane added:
"It's a good place to live.
So my husband fixes the
drain under the sink. But
my children are growing up
well and we have good
friends."

friends."

One woman seemed unusually philosophical. "You have to expect to pay high prices to have things done around the house," she said. "Materials are expensive, labor is expensive. If you want good work you pay good prices. So we pay."

Pot-Holed Streets

Behind a flowering bush, three women chatted by the steps of a house. They were concerned about the cost of concerned about the cost of fixing automobiles shaken up by pot-holed streets, particu-larly along 188th Street. The streets looked elean, though the women thought

Sanitation Departm was not keeping its promise of three pickups a week in

the area.
"It's really a nice neighborhood," said one of the women and the others "It's stable," she said stable."

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Montauk Land to Be Declared Surplus

Montauk—The Department of Defense has decided that 123 acres at the 301-acre Montauk Air Force Station are no longer needed, and the land is to be declared surplus, Rep. Otis G. Pike announced yesterday.

A spokesman for the Long Island State Park Commission in Babylon said the park agency had already filed a claim. The surplus property would be added to the 724-acre Montauk Point State Park, almost all of which lies north of Montauk Point State Parkway and fronts on Block Island Sound.

The Suffolk County Legislature voted earlier this

year to acquire about 1,500 acres of land adjoining the state park for a county park.

In a report to the Riverhead congressman three days ago, the Air Force said it had decided that two parcels of land were no longer needed by the military. One parcel, about 40 acres, is on the eastern section of the station, and a second parcel, about 83 acres, is located on the western end of the station. The Air Force said that an existing sewage treatment and disposal plant in the eastern section would be retained.

The Air Force report said that none of the other branches of the military were interested in the surplus property. The land will now be turned over to the General Services Administration, which will canvass other federal agencies to determine whether any wark the land. If not, the property would be offered to various agencies of the state government.

The Montauk Air Force Station has been in existence since 1946 and is manned by the Air Force's 773rd Radar Squadron—about 140 military personnel and 30 civilians. The squadron monitors planes approaching a section of the Atlantic coast of the nation to determine whether the planes might be enemy bombers. The site formerly belonged to the Army, which constructed Camp Hero, part of a network of coastal defense facilities.

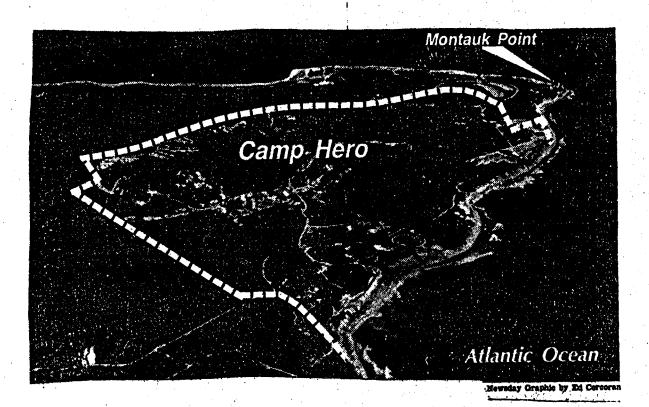
14.S. to Transfer 19 120 Acres For Montauk Park

month delay, the federal government will transfer about 120 acres next month from Camp Hero to the ctate to be included in Montauk State 21/Park, Long Island State Park 11 and Recreation Commission officials have said.

-ne Interior Department officials are scheduled to turn over , the 120 acres at ceremonies of at Montauk State Park at 10 de AM Thursday, state park ofdicials said. The additional land will increase the park area from its present 725 acres to about 845 acres. parks officials said. The federal donation of nearly onefourth of the Camp Hero Whiland was part of former President Richard Nixon's plan nito transfer 40 parcels of federal land totaling 6,775 acres , to state and local govern-, ments.

Harthon L. Bill, general 1: manager of the Long Island State Park and Recreation Commission, said yesterday that lengthy delays in completing paper work delayed the transfer. "By the time deeds are drawn up and checked out, a good deal of time elapses," Bill said. The parks commission first announced the transfer in December, 1972. Bill said that parks officials would make plans at a later date for use of the additional 120 acres.

3



By Dallas Gatewood

Montauk-On July 1, its mission completed, the 75-foot radar dish at Camp Hero will stop rotating. Shortly thereafter, probably within the month, an enormous crane will lift the antenna from its con-

crete base to be disassembled.

The antenna, part of a long-range radar-surveillance installation, has rotated once every 12 seconds since being commissioned in 1962. It can be seen for miles—on sea and land—from its perch just west of Montauk Point, marking Camp Hero, the last of Long Island's military bases.

The base, named by the Defense Department as Montauk Air Force Station, will continue to operate a ground-to-air radio station until 1982 with a military staff of five. But the other 75 military personnel and most of the 19 civilian employees stationed there now will be gone by the end of the summer. The radar-surveillance job will be turned over to a more sophisticated system operated from Massachusetts and New Jersey.

The future of the 101-acre site is still uncertain. The Air Force and General Services Administration will screen other military and government agencies to see if any want to take over the base. If not, it could be turned over to the state to expand parkland or to the Town of East Hampton, which is con-

sidering the base as a site for housing.

An Air Force study done about a year and a half ago, when there was a total military-civilian contingent of about 140 persons at the post, said the installation's payroll was about \$1.6 million annually. In a formula that figures not all military sala ries are spent in the community, the report estimated that closing the base would mean an an nual loss to the community of about \$1 million a year. Lee Koppelman, Long Island regional planning director, said there would be an impact from the loss but that compared to East Hampton's large tourist industry, the impact would be minor.

The base is almost like a tiny hamlet, and despite the size of the radar equipment, it lacks the sterility of a typical military installation. The same lush foliage that surrounds Montauk Point is seen on the post, and the barracks and administration

buildings are Dutch colonial.

This is like a very large family," said Maj. Miles Martin, the base commander, of his small contingent.

The folksy charm of the base was very much a part of its design. In 1942, when the Army commissioned Camp Hero, it was a camouflaged coastal-defense station, and between those charming buildings and barracks were two buried concrete bunkers. The bunker walls were nearly three feet thick and housed four 16-inch naval rifles.

As one Navy spokesman put it, "Those guns could throw a shell that weighed as much as a Volkswagen 21 to 24 miles."

When the Army withdrew from the base in December, 1957, an official press release said that during the war, "residents of the nearby communities knew very little about the camp, except that it was named for Maj. Gen. Andrew Hero Jr. and some huge coastal defense guns had been moved into it." Hero, who died in 1942, had been the Army's commander of coastal artillary.

The Air Force began its surveillance responsibilities at the camp in 1950. The army had dismantled its armaments in 1947 but returned for a joint residence with the Air Force from 1951 to 1957, when it operated anti-aircraft batteries there.

Joseph Mott of East Hampton, the base's civil-engineering foreman, a civilian, has worked at Camp Hero for 28 years. "I'm sorry to see it go," he said. "But this is outmoded; they don't need it any more." He is applying to be part of the caretaker crew of five or six civilians who will maintain the camp indefinitely until the government decides the post's fate.

Civilians are retiring, taking transfers or, like Dorothy McCann, the base housing officer, moving to non-government work. The military personnel

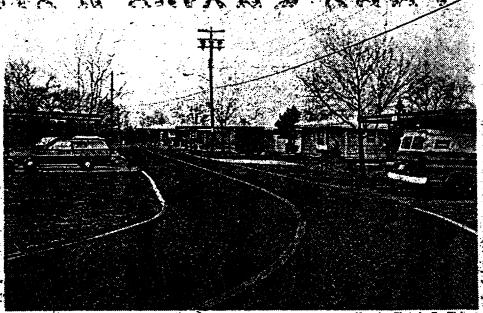
are being transferred to other installations.

Ed Kenney of Amagansett began a job at the base in 1956, two years after moving to the East End from New England. "I've got sand in my pants and everywhere else now: I wouldn't consider moving," he said.

The GSA said that it would not be able to take bids from public agencies wishing to take over the base until December at the earliest. Mary Fallon, East Hampton supervisor, said the town would like to acquire at least the part of the base with the 27 houses for use as low- and moderate-income housing. Ivan Vamos, the deputy state parks commissioner in charge of planning, said the state is considering asking for some land to add to its considerable park holdings in the Montauk area. But John Sheridan, general manager of the Long Island State Parks Commission, said that he has had several meetings with Fallon, and will work out a plan to allow the town to use the houses.

In the meantime, one of the few highly visible signs of the base that will remain is the orange building that housed another radar antenna. Capt. Chavis Harris, Hero's information officer, said base legend has it that the building, the only orange structure on the site, was painted at the request of local fishermen

who use it as a land reference point.



Rewater Photo by Ike Elctiorn

Air Force homes that East Hampton wants for low- and middle-income housing

High-Income Site, Low-Income Homes

By Dallas Gatewood

Montauk—East Hampton Town officials think they have found a nice site for some much-needed low- and middle-income housing. The problem is that the site may be too nice.

The town wants to take over 27 one-family houses on the Montauk Air Force Base when the base closes sometime next year. The homes sit just a few hundred yards from the Montauk bluffs, which command a magnificent view of the Atlantic Ocean. Just to the west, on some of the most expensive property in North America, are the summer homes of such celebrities as artist Andy Warhol and talk-show host Dick Cavett.

If the town acquires the houses, it could sell them to qualified families under federal guarantees of low-interest mortgages. But town officials, including Supervisor Mary Fallon, fear that the site may be so attractive the homes could be resold later at much higher prices as vacation homes. Federal Housing and Urban Development officials say there is nothing to prevent this.

"This would defeat the purpose of moderate-income housing," Fallon said. The highest selling price with federal mortgage guarantees is \$45,600 per home, according to HUD. Montauk real-tor Frank Capozzola said that on the open market the houses could command minimum prices of \$65,000.

One proposed solution is for the town or a suitable private management agency to operate the units as subsidized rental units. "Renting them would be more expensive for the town," Fallon said. "We would have to maintain the houses." The town also would have to set up a housing authority. Attempts to establish complexes of rent-subsidized housing in the town recently have been met with stiff opposition. But HUD says the area is suitable for such housing.

The ultimate disposition of the property will not be certain until early next year, when the U.S. General Service Administration offers the land to other federal, state and local agencies. The GSA has said, however, that an informal servey of Defense Department agencies (which include branches of the military) has shown that none wish to acquire the land. So far only the State Department of Parks and Recreation has expressed any interest in the base, and state officials said they would be interested only in undeveloped property, not base housing.

Town Councilman Randall Parsons said the matter may not be settled for a year. The GSA has contracted with Columbia University for study of the best uses of the base property once the station is closed, and federal officials said local informational hearings will be held, probably in February.

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NEWSDAY, THURSDAY, MARCH 3,

23

Housing Deal at Montauk Base OK'd

By Steve Wick

Montauk — The U.S. General Services Administration ruled yesterday that East Hampton Town may take title for a nominal fee to 30 acres at the former Montauk Air Force Base, including 27 housing units to be sold to moderate-income residents.

The 27 families who will get the homes for about \$40,000 each already have been selected by lottery, and a town official said he expected them to be able to move in by the end of the summer.

The town — which sought the land because local residents are being priced out of the market by soaring resort prices -- will pay \$81,000 for the property and plans about \$900,000 in renovations to the houses and sewage and water systems.

The General Services Administration had earvirtually for free, saying that under a Reagan ad-

ministration directive, it should be sold at market

Sen. Alfonse D'Amato (R-New York), who announced the decision yesterday along with Rep. William Carney (C.R-Hauppauge), said that the government agency and a House subcommittee that also had balked at the plan dropped their objections after further consideration.

"It will take two weeks for the paperwork to go through, then the town will take title to the property." said East Hampton Town Board member Michael Finazzo, who has been a vocal supporter of selling the homes to moderate-income families. "Ithink the families will be in the homes by the end of the summer."

Early last year, the town applied to buy the 30 acres lier balked at turning over the valuable property, at the deactivated radar station near Montauk Point, including base housing. The land was offered for resale . is terrific." .

to local residents under a federal low-interest housing

A hitch developed in November when a subcommittee of the House Committee on Government Operations recommended that the sale be rejected, largely on the grounds that it amounted to an unreasonably large federal subsidy. In addition, the GSA cited the Reagan directive.

With the matter resolved vesterday in favor of the town, D'Amato, in a joint announcement with Carney, said. "This is great news for eastern Long Island, where there is a severe shortage of year-round rentals and affordable homes for purchase by middle-income families."

Carney added: "Twenty-seven middle-income families who otherwise might have never owned their own homes will now realize that dream. This

U.S. Is Moving to Sell Old Montauk Air Base

By Laura Durkin SEP 1 6 1983

Montauk — Despite a series of pleas from state, local and county officals that the property be preserved, the federal government is proceeding with plans to sell to developers the former Montauk Air Force Base, a 278-acre parcel near Montauk Point.

The General Services Administration, which disposes of surplus federal land, has repeatedly rebuffed efforts during the last year to work out a way to save the land from development. Residents in the area received letters from the GSA this week telling them that the most recent pleas for preservation had been rejected. At the same time, the GSA has released a study saying that the "highest and best use" of the land would be residential housing, and that there would be no significant impact on the environment.

Wrong, local officials say.

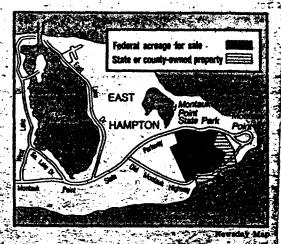
"There's a high percentage of wetlands in that area," said Town Supervisor Ronald Greenbaum.
"There would probably be a maximum of about 80 houses that could be built there. And I've heard no one express interest in buying it. It's a very difficult piece of property to develop."

The government had offered the land to the town for \$3.25 million, a figure town officials rejected as much too high. That figure — which GSA officials said yesterday was a "specially negotiated price" to the town — is really about the fair market value cost of the land, according to Montauk real estate appraiser George Hammer.

The government proposes to put the land up for sale in December, either in a closed-bid sale or on the auction block. But maneuvering by state and town officials continues.

East Hampton Town plans to argue that an environmental impact statement is necessary before plans for construction can proceed.

In case that argument does not succeed, Councilman Randall Parsons said, officials are investigating a finding by the GSA's property disposal review board, which said that lands adjacent to state parklands also ideald be used as parklands.



The old Air Force base is bordered on two sides by state and county park lands.

If that argument doesn't work either, State Deputy Parks Commissioner Ivan Vamos said, the state has a card up its sleeve. On Fire Island, Vamos said, there is a parcel of state land, lying between two parcels of federal land, that the federal government covets. Any swap "would be a new procedure," Vamos said. "The question would be how we could bring it about. The [state] land on Fire Island is adjacent to the old Fire Island lighthouse, which is federal land."

Department of Interior officials could not be reached for comment on the possibility of a swap. But GSA officials said they were proceeding with plans to advertise the Montauk property for sale in December and that the federal government already has been generous with the town.

"We are transmitting 17.4 acres of waterfront land [near Montauk Point] to the town, and we have transmitted the 25 acres of land on which are 27 former Air Force Base houses," Patricial Caroleo of the GSA's real-property office in Boston said yesterday. "The highest and best use of the 278-acre base land is residential development."

State Lands Montauk Air Base

U.S. agrees to swap 278-acre site for 125 acres on Fire Island

By Laura Durkin

Ending a year-long battle, the U.S. General Services Administration has bowed to pressure and decided to release the 278-acre Montauk Air Force Base into the care of New York State for use as parkland.

Officials said the transfer could take place in about a month, as soon as paperwork is completed. In return, the state is to transfer to the federal government 125 acres it owns within the Fire Island National Seashore.

The decision to turn over to state officials the wooded parcel on the tip of Long Island was made this week by GSA officials after Congress had passed a tax bill that also called for the transfer of the land to New York.

The tax bill, GSA spokesman Paul Costello said, "had clearly stated that the highest and best use of the property was for parks and recreation purposes. So the entire 278 acres will go to the Department of Interior, and Interior will make the transfer to New York State."

"This is a great day to announce it, right before our biggest recreational day of the year on Long Island," said Rep. William Carney (C,R-Hauppauge), who with Sen. Daniel Moynihan (D-N.Y.) had worked to attach the Montauk property to the tax bill."... New York has said it is prepared to spend money on the land, and that it will swap the Fire Island land. The land is now saved, and that's the important thing."

Thomas Wilson, a spokesman for the Department of the Interior, said last night that Secretary William Clark had been waiting for the GSA decision, and is "delighted, naturally."

Clark entered the fray on the side of local officials, who for nearly a year had been opposing GSA's intention to sell the land to the highest bidder. The land, which was closed as an Air Force base in 1980 and then declared surplus, had been put up for sale this year under President Ronald Reagan's plan to reduce the national deficit by selling off unneeded federal properties.

An auction in February brought a high bid of \$1.9 million — \$1.3 million less than the GSA had said the town would have to pay for the land — after town officials rezoned the land to for-

bid development and a federal judge had slapped a temporary restraining order on the sale.

Local officials, later joined by Gov. Mario Cuomo and Secretary of State Gail Shaffer, contended that the land was home to several rare flora and fauna, as well as a fragile water-table area. And federal officials conceded that proceeds of the sale would not help to reduce the deficit.

Preservation of the land for parks will mean that nearly the entire tip of Long Island is in public owner-

ship.

"That's wonderful news," East Hampton Supervisor Judith Hope said last night. "It seems to be the successful end of a long battle. And it certainly was well worth it."

JULY 4, 1984

MONTAUK GETS PARI

By ROBERT WEDDLE SEN. Alfonse D'Amato has won his two-year a state park.

from being auctioned servationists. off for condominiums, (R-N.Y.). D'Amato teamed up with Democratic Sen. Daniel D'Amatq spokesman Moynihan to attach an obscure rider to the big national deficit "downpayment" bill.

The rider provides that the magnificent nounced that the base,

300-acre wooded hills at Long Island's castern tip be transferred battle to convert Mon- from the federal govtauk Air Force Base to ernment to the state, - much to the delight To save the land of campers and con-

"A precious resource has been rescued from the developers," a

said.
The long struggle began when former Interior Secretary Watt James anshut down in 1980, would be auctioned for condominiums.

A joint force of environmentalists state and local officials won à court order which permitted the auction but prohibited the finalization of a sale.

The highest bid was \$1.9 million — far below the \$3.2 million the General Services Administration had inpay to avoid the auction. sisted East Hampton

Meanwhile, D'Amato and Moynihan tried in vain to get the GSA to give the land to the state.

"We ran into a real roadblock at the GSA, said the D'Amato spokesman. "So we worked out a compromise and took it to Congress."

The rider provides that the former air base be transferred to New York for park usage - and, in return, the state gives the federal government 125 acres it owns within the Fire Island National Seashore.

"That's just super," said an elated East Hampton supervisor Judith Hope.

The new park, adja- . cent to the existing Montauk Point State Park, 120 miles from Manhattan, will be preserved forever in its natural state, said Gail Shaffer, Gov. Cuomo's secretary of state.

Camping and picnicking, but no games or other recreation, will be permitted.

Dream Housing Beset by Problems

By Laura Durkin

Montauk — The government-funded Camp Hero housing project, which once seemed like a dream for residents who could not otherwise afford to buy in East Hampton, has become a problem-ridden nightmare in recent months.

The latest of the problems was disclosed yesterday, when the Suffolk County Health Department lowing raw sewage to overflow into a wetland there.

The violation of county sanitary code apparently houses - and a 30-year-old sewage system - when the old Montauk Air Force Base was declared surplus by the federal government a few years ago.

But the contaminated wetland is just the latest embarrassment at a project that 21/2 years ago began as a model program to provide affordable houses for residents of a town where most realestate prices have gone through the roof.

"Allowing that sewage to run out into the storm drain is ridiculous and unacceptable," said Tony Bullock, one of the town councilmen charged with overseeing the project. "We will be stopping off that connection right away. Still, we're making progress. It's slow, but it is progress, and people are generally happier than they were in the begin-

The beginning had a "myriad of problems," said Stephanie Sekora-Edmonds, who with her husband, Allen, won the lottery to purchase No. 145 Jefferson Lane. "When we signed the contract on June 15 there was no operating water," she said, "We kept asking is the water drinkable, and they kept saying. We don't know, but we're sure it's okay. Then we moved in and on Aug. 8 the county puts signs on everybody's house saying don't drink the water.

Other residents, as soon as they moved in found the floor tiles popping up off the slab and newly bainted walls peeling. George Hear, whose new

124 Jefferson, said, "When we came in nothing but the best I bought good paint spent all day doing." the living room. Got up the next morning and it was all specied off A the second

Many ovens didn't work. Drains backed up will dows cracked One lottery winner got scared an backed out of his \$41,500 deal.

Meanwhile, at town hall, the bills on a project yesterday cited the Town of East Hampton for al-; that was contracted to cost \$750,000 were coming w in at more than \$1.1 million

The Democrats blame the Republicans, specifiis no fault of the town, which gained ownership of 27 __cally. Councilman, Michael Finazzo, who had the job of supervising the overseeing engineer and handling the paperwork. Finazzo said he was working against tight deadlines, unexpected ren-ovation problems and new requirements. And IS admit I am only a councilman I Finazzo said Mr. Bullock apparently thinks he is someone far superior than a councilman,"

or man a councilman.

Last month, the Town Board, after weeks of diecussion, passed a new bonding resolution authorizing the town to shoulder the burden of the overruns. And slowly, some of the problems inside the 24 homes that are occupied are being fixed.

But the order to boil water is still in effect, and yesterday the county attorney's office said that Health Commissioner David Harris has requested that a case against the town be put together, be cause the town has failed to find the source of th high fecal-coliform count in the water

For more than six months, promises that the problems would be corrected have not been met. said Derrick Robinson, an assistant county attorney. "That water is not fit for human consumption" unless it has been boiled first. We can't understand why the town has been less than diligent light

"I take no responsibility for that," Bullock said. That's the only thing I saked Finazzo to take care

Tve been reassured by the engineers that they are doing everything they can to find the source of



EASTEND

Feeling Trapped at Camp Hero

Residents chafe under contracts that could cost them if they move

By Jenny Abdo

of all stories, this would seem to fit the idea of the

In the early 1980s, the sederal government gave. East Hampton Town title to 27 homes on 30 acres at a firmer Air Purce bese in Montaul. The homes were to be used for low-root houseless.

he idea was to help ordinary n folk who had given up hope awaing homes became of the ach cost of real estate in East Hampton.

riampoon.
Within three years, a housing lotter years held and 27 families moved into a development called Camp Hero. For \$41,500 each, the families got coder-shrighed homes on streets named after U.S. presidents — Washington,

Oh. presidents — Washington, Madison, Liencoln and Jefferson. The faithlise, who previously were rentere, had never imagined that they could afford a home in East Hampton. After all, they had modest incomes. One was a fisherman, another a chef, and one wonan, was the widow of an Air Force captain who had died in the Korsan War. The woman had raised three children alone on her salary as

But five years later, the families no longer believe their lives represent the American Dream. The contracts the families signed do not afford them the liberties guaranteed to typical

homeowners, they said. Rich "I love this area, I like my neighbors, but we don't really own our homes," said Carla Grimm, one Camp Hero resident, referring to contract provisions that limit the amount of money home sellers can retain and impose other rules as well.

If they sold their homes today, residents say, many families would lose money. They would be allowed only their original \$41,500 investment plus increase in the consumer price index



Richard Brown, Carla Grimm and Blanche Riley outside their homes at Camp Hero in Montauk; Riley home is at right

since the houses were purchased. The total would be about \$52,000.

The families say the \$52,000 would allow them no profit or compensation for improvements they have made, and that they would, in fact, less \$3,000 to \$4,000 after paying closing costs. In addition, the families can't borrow against their homes — which for many homeowners is prime egisty — without permission from the town.

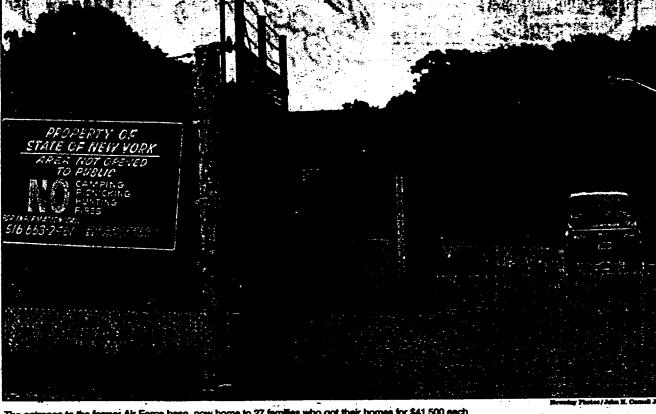
And finally, in addition to paying a fixed 15.5 percent interest on their mortgages — higher than the current average of 9.96 percent on fixed-rate mortgages — the homeowners will have to repay government subsidies if they sell before their 30-year mortgages are paid off.

As part of the affordable-housing program, called homeownership sesistance for lower, and moderate income families, the homeowners pay only 20 percent of their family income toward their monthly mortgage costs. The U.S. Department of Housing and Urban Development picks up the rest of the monthly payment.

A family that sells its house before the

A family that sells its house before the mortgage is paid off could owe the U.S. Department of Housing and Urban De-

Please see HERO on Page 3



The entrance to the former Air Force base, now home to 27 families who got their homes for \$41,500 each

The programme and the community of the c

Feeling Trapped at Camp Hero

HERO from Page 1

velopment up to \$100,000 in subsidy repayments. The subsidies have to be repaid only if owners sell before

30 years.

Blancha Riley, who is 60 years old, said she fears that her children, who will inherit her Camp Hero

use, will be burdened by the cost.
"I applied for a house because I wanted a permant place to live," said Riley, a clork for East Hampton Town. "I am trying to refinance the house, but I

ton 1 twen. "I am trying to remaine the notice, but I don't know if I can on my salary."

Riley or any other homeowner in the development who refinances would no longer receive a HUD subsidy, but would benefit by obtaining a lower interest

East Hampton Town officials agreed that the Camp Hero mortgage contract is too restrictive — more rigid

than those governing other affordable-housing projects in East Hampton. The dif-ference, they said, is that Camp Hero was once owned by the federal government, and the con-tract was written to comply with a now-defunct housing program. The program provides mortgage insurance as well as the interest

"We are trying to go to but for em," said Pat Trunzo, a town ard member. "I wish they'd get it out of their heads that we

As a result of several me with Camp Hero residents, town officials said they are working with Rep. George Hoch eckner (D-Coram) to see if HUD will have the contracts re-Trunzo said that, through Hochbrueckner, the town has recommended that HUD allow residents who sell their he get 50 percent of the market val-ue, while requiring that any sale be done through the town so that the houses could be sold to others who would qualify for an affordable home. For example, if the value for the home was \$150,000, the town would sell it for half that value to a alified buyer, and the homeown m the sale. er would get \$75,000

In a letter to Trunso in April, Edward Reale, the East Hampton town attorney, explained that East Hampton does not have the authority to change the p Hero contract.

the town at substantially below market value based upon our promise to HUD that we would impose these restrictions, which were drafted by HUD, when erty was resold to the individual h the letter states. Reals noted that the homeown ers were sold the houses for 50 percent less than the market value at the time.

Camp Hero residents, however, said there stions about whether the town or HUD was maible for drafting the contract. They said the town had more input than it has acknowledged. The enly requirement set by HUD, the residents said, was that if the homes were sold within 30 years, home-owners would receive only \$41,500 plus the cost-of-

HUD officials said it could not immediately be de-remined if the homeowners' contracts will be revised. Many of the efficials who worked on the Camp Hero project have left the agency. A HUD spokesman in Washington said, however,

that the terms of the home

cal of those in this type of housing.

In his latter, Reals conceded that part of the residents' suspicion about the town's involvement ed from a rider that was attached to the homeowners' contract. The original contract, drafted in 1982, provided that the town would retain only one-third of the resale price of the homes.

'Unfortunately, it was prior to receipt by the town of the HUD restrictions imposed," Reale said.

In 1983, the U.S. General Services Administration officially turned over the property at the former Air Force Base to East Hampton Town for \$81,000. But in 1984, as the families were about to take title to the homes, HUD notified the town that a rider had to be attached to the original contract, according to wa officials, imposing the current restrictions

They said If you w houses you take these condi-

When the homeowr called in to sign the rider, many said, they did not approve of the new terms but signed snyway.

"We didn't agree with the new terms, but we had to sign," said Richard Brown, a Camp Hero resident. "We had been waiting so long. Some of our les up, one woman was prognant, and everyone needed a house. By



A view of Edison Street at Camp Hern, with its cadar-shinoled homes

Montauk # The War Years

IN THE SUMMER OF 1941, MONTAUK WAS A THAVEN OF INNO-

CENCE, IN AN INCREASINGLY HOSTILE WORLD. HALF FISHING

VILLAGE, HALF SUMMER RESORT, IT EXISTED IN SUBLIME ISOLATION

AT THE FAR END OF LONG ISLAND A COMPLETE DINNER AT THE

MONTAUK TAVERN ONLY COST .354, THE LOCAL CINEMA OFFERED A

DOUBLE FEATURE FOR A NICKEL AND THE GRADUATING CLASS

OF THE MONTAUK ELEMENTARY SCHOOL NUMBERED SIX, ALTHOUGH

TORM CLOUDS GATHERED OVER BUROPE AND THE PACIFIC, building once stood at the edge of Fort Pond Bay, Train of the

IONTAUK, LIKE MOST OF AMERICA, PAID NO ATTENTION. PEARL HAR-

The factor of the factor BOR CHANGED ALL THAT, AND BY THE SPRING OF 1942, MON-

TAUK AND ITS MEN AND WOMEN WERE * KNEE DEEP KNEE DEEP IN THE

WATER THIS IS THEIR STORY.

When the Japanese bombed Pearl storpedoes miss their target or fail to Harbor on December 7, 1941, the United States was caught off guard, unprepared for combat. In those dark, early days our troops found themselves not only outmanned, but outgunned by better armed German and Japanese forces. Where we flew 1930 era P-40's, the Japanese filled the skies with swarms of lethal Zero's. When our lightly armed tanks took the field, they were outgunned by top of the line German Panzers. While our World War I era destroyers struggled valiantly to protect convoys crossing the Atlantic to Britain, volfpacks of treacherous U-boats ed in for the kill.

Unfortunately, a country prepared for peace wasn't able to instantly rearm its understaffed, ill-equipped forces to match its enemies' years of planning and provisioning. It would take years to design and mass produce the weapons of war that would ultimately turn the tide - the P-51 Mustang, Sherman tank, B-17 Flying Fortress, Forestall class curriers and the many other tools the US fielded to defeat our foes.

One of the few areas the US did enjoy was a technical edge of submarines. Our Gato class sub was larger, faster, capable of diving deeper, and staying on pairol longer than its Japanese counterpart. At war's start, our fleet of 45 subs set sail from their home ports throughout the Pacific, to harass the Japanese fleet. Since most of our surface fleet in the Facilic had been knocked out of action at Pearl Harbor, subs were our best bet to inflict immediate damage on the enemy. However, good as they were, their long range torpedoes were notoriously unreliable. Many times a sub would stalk its target, move into range, and fire a round only to see its

detonate on impact. Our torpedoes ere so erratic, some even doubled back on their own subst Entire glissions A were wasted on bad torpedoes, and the Navy realized they had to develop a more reliable one or risk losing the Pacific War.

The State of

The Navy found its answer here in Montauk on Fort Pond Bay. There in 1942, the Navy built a massive new facility to develop and test the new generation of tomedoes that would win the war. Montauk was a logical choice - a lightly settled area guaranteed total security, a body of water at Fort Pond Bay deep enough to bring the biggest Navy ship into, and a natural bay wide enough to safely test fire and recover tomedoes. Besides. Montauk had already served the military well over the years. Teddy Roosevelt and his 3,000 Rough Riders had spent two years here at the turn of the century recovering from exposer to Yellow Fever during the War of 1898: Between World War I and II Montauk was an observation post for the Navy, with two reconnaissance blimps stationed in a hanger adjacent the current Montauk Tower on the Circle, and a number of oceangoing scaplanes at a base on Fort Pond Bay.

When the Navy commandeered Montauk in the Spring of 1942, it took over a small sleepy village, totally unlike modern day Montauk. The residents at that time, mostly fishermen, lived along the shore at Fort Pond Bay where the current Rough Riders Landing condos are located. It was there that the homes, shops, restaurants and docks of Montauk were concentrated. Main Street and the downtown village area was almost entirely vacant. Besides the Montauk Improvement Tow

er and a few Tudor style building built by Carl Fisher on the Circle and Main Street, there was no downtown! The Navy changed all that forever, when it literally moved the Fort Pond Bay village out, to make room for the torpedo. testing facility. Homes and busin were leveled or moved to build the new base. Today the only remnants of the

old fishing village can be found at two local restaurants - the Trail's End and Windjammer, both on Edgemere Road. The bar and the entire Trails's End edge of Fort Pond Bay, before they were tinrooted and trucked to their current sites.

The base that took their place was massive, with four major buildings cov-

ering over 20 acres of sho stand serial bombardment, their alls and cellings were constructed of 45 thick steel seinforced, poured concrete! Inside shiploads of torpedoes were assembled, then loaded on to floating barges moored in Fort Pond Bay's deep water, and fired. Trailing a stream of bubbles from their compressed oxygen driven engines, seaplanes would follow their wakes out to sea and once the torpedoes's fuel was spent and they had floated to the surface, they would be retrieved and returned to base. Those that passed inspection would be shipped out, while defective ones could be scrapped or corrected. Over the course of the war thousands of tornedoes were tested here. and their success sent hundreds of Japanese and German ships to the bottom

The Navy wasn't alone in Montauk during the war. The Army established a shore observation and coastal defense network near the Point, called Camp Hero. Build on the bluffs next to the Lighthouse, it was a self-contained village, with barracks, stores, even its own

power and water supply. Its main mission was to guard against any possible German landing, and its primary weapons were four massive 16" shore batteries. Housed in concrete bunkers, and capable of hitting targets 20 miles to sea, these great guns remained silent throughout the war.

Needless to say the military's occupation changed the entire landscape of Montauk. Enlisted men took over the Montauk Manor, officers were billeted in the old Montauk Improvement Tower on the Circle, a USO was set up in the basement of the current Montauk Community Church, and armed centuries patrolled the beaches and claffs. The Montauk that had extered to nice sum

WHILE OUR WORLD WAR I FERA DESTROYERS STRUGGLED VALIANTLY TO PROTECT CONVOYS
CROSSING THE ATLANTIC TO
BRITAIN, WOLFPACKS OF TREACHEROUS U-BOATS HOMED IN FOR THE KILL!

this change, was John Pfund, or Pfund Hardware on Main Street turned 14 in 1941 and saw first h how Montauk was effected by its ne buildup. Like most péople he quickly accepted the military presence. I didn't think much about it in those days, I just kept doing the same things I had always done - going to school, hunting, fishing and trapping." For him the daily drone of planes overhead, the torpedo chasers criss crossing Pt. Pond Bay, the sight of men in uniform on Main Street was simply the norm tivities for war time Montauk.

When something unusual did hap-pen, it made an impact John never forgot. One day he was walking alo Old Montauk Highway, near the pa Beachcomber Motel, when he hea souttering sound of a plane in two st behind him. He turned to see CONTINUED ON INCE II



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MONTAUK LIFE, JULY AUGUST 1995

MONTAUK: THEWARYEAF

[Cont from 4] Navy torpedo plane headed straight for him, 50' off the deck, trying an emergency landing on the highway! It hit once, bounced twice, flipped and finally ground to a halt not 100 feet from him! Fortunately, no one was hurt, the pilot walked away with a few bumps and bruises and John with a lifelong memory. It was an exciting time, and Montauk was a good place to grow up in." The men of Montauk, old enough to enter the service, saw their fair share of duty, overseas. Perry Dure : yea, Sr., was commissioned into the Navy in 1943 as a Lt. Commander, after came of the final capitucompleting Officer's Candidate School Lation of Japan, and Tuat Colgate. Stationed in the Pacific for ma's ship was recalled the time duration, Duryea piloted a four "into port and immediate time duration, Duryea piloted a four "into port and immediately and interest and interest in the control of the cont engine PBY -2 Consolidated Coronado, ately decommissioned an oceangoing fright carrying scaplane. Like Duryea, Tuma re-During his ti ree years he ferried supplies into, and the wounded out of, resumed his life. many of the most important battles of the Pacific, New Guinea, Saipan, the duty and local took on New Hebrides, New Caladonia, and the was Frank Tuma's cous-Philippines. Discharged after the war he returned to Montauk to work in his fa- as a Navy fighter pilot, ther's lobster factory in Fort Pond Bay. Tuma pulled the ultimate However, it's his subsequent political stick jockeys assignment career for which he's best known. Electted to represent to East End in Albany, he served as State Representative for over 20 years, rising to be Speaker of the House, and finally an unsuccessful bid for Governor in 1978

Frank Tuma's military career took Frank Jums & Immery him to the Mediteran theater. There, as

a lieutenant in the Navy, he served as a communications navigation officer on an LST - (Landing Ship Tank), shuttling men and materials between the Free French port of Marsailes and the Italian coast. Our 8th Army relied on that flow of supplies to keep it moving towards Rome. After the defeat of Germany in the Spring of '45, Tuma's ship was reassigned to the Pacific for the final push against Japan. However, he never got

that far - as they were proceeding along the eastern seaboard news ma's ship was recalled turned to Montauk and Perhaps the hairiest

in, Robert Tuma, Trained - flying F-6 helicat night fighters on a small carrier in the North Atlantic. Flying primarily anti-submarine patrol along the shipping lanes off the East Coast, Tuma served three years. How hard

was night fighter plane duty? Imagine trying to land on a 300 foot long, 50 foot wide platform, in the middle of the Atlantic! The deck you're aiming for is heaving 5' to 6' sliding side to side, and to top it all off, it's pitch dark! The fact you could get on and off safely was testament enough to your flying skills, never the less your ability to attack U-Boats. Bob survived to return to Montauk on Christmas Day 1945. Odd thing - he never piloted an airplane again.

When the war ended, the military left Montank nearly as quickly as they had

came. The torpedo testing station was abandoned, the planes scattered to be moth balled, and the troops discharged. Some of them stayed on, and settled here, marrying local girls, raising families. Today little remains of those days except the faded photographs of long since torn down buildings, and ar with boy's faces in khaki uniforms we celebrate the 50th anniversary of end of the last great battle betw good and evil, remember that this quaint village played a not insignificant role in defending our freedom.



Play Explodes Bomb From Bay

By Matthew Cox

When he showed up for work at Inict Sealood in Montank, Saturday, morning, John Made was curious about the algae-covered object he found lying on the floor — curious enough to touch it,

but not curious enough to try to solve the riddle single-handedly.

"It looked like a bomb to me," said.
Rade, who decided to telephone the
U.S. Coast Guard.

Munitions expects say it's a good thing he did call for help. The chiect

inraed out to be a live, 100-pound aerial practice bomb made more than 65 years ugo. A fisherman who hauled it in from Fort Pond Bay left it at the Inlet Senfood dock Friday afternoon. The Coast Guard evacuated the area, and late Saturday, after the Suffelk County bomb squad

had examined the device, three U.S. Navy bomb exparts were flown in from Rhode Island. They look the bomb to an isolated area and detainted it at about 2 a.m. yesterday.

No one was injured. Because it was a practice device, some of the bemb's explosive majorial had been replaced with sand, said Lt. Cindr. Bob Wiegert, the officer in charge of the Navy detail. Still, the bomb contained at least a half a pound of high explosive in its booster.

"It was loo hazardous for me to take back by helicoptor," Wiggert said.

Rade said the bomb was hauled to the pier Friday afternoon by the craw of the commercial fishing beat Atlantis. One or two craw members, apparently unaware of the danger, lifted the device out of the boat and "just kind of threw it in the building," said Rade, who was not there to witness the unloading. Rade said to found the bomb whim he came to work at about 8 a, m. Saturday.

He grew suspicious after speaking with other workers on the dock. Eventually he called the Cenat Guard. By 4:30 p.m. authorities determined the bomb was a military dovice. The Coast Guard used one of its helicopters to ly in the team from the Navy's Explosive Ordinance Disposal detacliment in Newport.

Wiegert identified the device as a 100-pound, MK-I practice bomb made in the United States sometime before 1930. Const Gaurd Petty Officer Dan Plue said the device was about 3 feet long and 1 foot in circumstrance. Authorities speculated that the bomb may have drifted away from an ordnance dumping ground off Montauk Point.

The Navy crow trucked the bomb to Fort Pand Bay Disposal Area, which Visgert described as a former Navy forped disposal facility about 15 minutes from Montank. After stincising explosives, Navy workers bloy it up.



Saving Birds While Endangering Himself











State Plan for Camp Hero Cabins Assailed

By JOHN RATHER

HE state parks commissioner, Bernadette Castro, said last week that 415 acres of state land at Camp Hero near the Montauk Lighthouse should be opened to the public as soon as possible for uses that could include hiking, fishing and accommodations in cabins available for rent.

But in an indication of local sensitivity about the land's future, civic, community and business groups in Montauk oppose cabins as environmentally unsuitable, a strain on local water supplies and unwanted competition for local motel and hotel owners.

The oceanfront land, a former Air Force station and World War II coastal defense, has been closed since the state acquired it in 1984 in a land swap with the federal government that saved it from private development.

In July, Mrs. Castro dropped an earlier plan to develop the property as a public golf course, a use vehemently opposed by Long Island environmental groups and some Montauk groups but supported by most of the local motel and hotel owners.

Mrs. Castro said a recent agreement by the U.S. Army Corps of Engineers to speed up an environmental review of the property meant that public access for other purposes could be provided within the next three years, before her current term as commissioner expires. The review will determine if there

The review will determine if there are contaminated areas that would have to be cleaned up before the public could enter. Mrs. Castro said she hoped that any clean-up required could be completed in the three-year period.

"My mission is to give the public access to what they own," Mrs. Castro said in a telephone interview. "I do not want to keep posting 'Do Not Enter' signs there. It's not fair to the negocial."

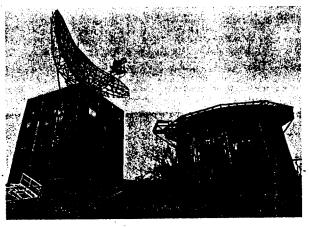
The former base, which is just west of the lighthouse, includes bluffs, wetlands and the remnants of an artillery battery and buildings camouflaged to look like a fishing village to deceive seaborne invaders who never came.

The Montauk Air Force Station, a radar installation, occupied Camp Hero after the war until it closed in 1981. A small portion of the former base was turned into an affordable housing project, where some Montauk residents opposed to the cabins W now reside.

The fortifications include a system of underground bunkers. Mrs. Castro said the bunkers, which extend for several hundred yards, were "something the public deserves to see." She said a radar tower that was "beyond state-of-the-art in its day" was another point of interest, as were some of the remaining buildings in the false village. One building designed to look like a church is a gymnasium inside and would be preserved, she said.



The state is moving to make 415 acres of land available to the public at Camp Hero, which has such unused buildings as a church, above, and a radar tower.



A mission by the state to give the people access to 'what they own.'

She said building 12 to 18 yearround cabins, each with room for up to six people, was only one of several possibilities on a list presented to a citizens' advisory group in Decem-

ber.

"This park will always have a passive tone to it," she said, using a term that implies light use and limited infrastructure. "There are not going to be grills for picnicking. There is not going to be a golf course."

not going to be a golf course."

She said that while there "perhaps" could be cabins, "the key word is perhaps."

But some members of the committee who attended the December meeting said Mrs. Castro seemed intent on building the cabins despite the local opposition.

the local opposition.

"She warned us that she was not giving up on the idea as easily as the

golf course," said Lisa Grenci, a member of the Camp Hero Advisory Committee and also chairwoman of the Montauk Citizens Advisory Committee.

Mrs. Grenci said the latter group, which represented a spectrum in Montauk, unanimously opposed the cabins but favored increased access for trails and possible restoration of

the bunkers.
"I think the feeling was we are really urbanizing our parks and there is a very severe water shortage at Camp Hero," Mrs. Grenci said. She said she also expected the Army Corps would discover contamination on the property that would have to be cleaned up before cabins could be considered.

But they should not be built in any case, she said. "The fear is if they put

in 18 cabins and if it's successful they will put in 18 more," she said.

Laurie Costello, executive director of the Montauk Chamber of Commerce, said cabins would hurt the local economy. "The state would be operating lodging units on a year-round basis that would compete with local private industry," she said. She said the cabins would especially harm motels and hotels that remained open during the winter months.

But concern was running high last week that Mrs. Castro would not be put off by local opponents or the advisory group, which rated cabins second-to-last, according to Mrs. Grenci, in rating a list of potential uses.

Mrs. Grenci said Mrs. Castro told members of the Camp Hero advisory panel that they had taken away her golf course and they would not take away her cabins. Her recollection was the basis for a quote attributed to Mrs. Castro that was printed in the local weekly, The East Hampton Star.

Mrs. Castro denied she made the statement. "I was kind of hurt," she said. "I never said that."

"On my personal vacation I rented a house in Montauk and took my whole family there," she said. "I have a personal love for Montauk. I will do nothing that is not right for Montauk."

But the statement as printed in The Star touched a nerve. "She's a strong lady and she knows what she wants," said William D. Akin, the president of Concerned Citizens of Montauk. "But to say something like that is right off the chart. It's not a responsible statement for a public officials to make."

Mr. Akin said the cabin proposal was rooted in a misguided philosophy that parks should be revenue-producers. "But if you do a financial analysis of building the cabins and providing security, and assuming that they don't rent for \$200 or \$300 a night, I'm not sure it would even be a money-maker," he said.

Mrs. Grenci said, "It's this last great piece of land, why does anybody have to do anything with it? Why can't we just leave it alone?"

But she said she favored public access and historic tours.

Though the land is gated, it is still frequented by hikers and fishermen who know access points. There is an extensive trail system.

Camp Hero is one of three state parks in Montauk, a favorite destination for tourists. The others are the 1,755-acre Hither Hills State Park and the 724-acre Montauk Point State Park.

The Hither Hills park, an expanse of woods and beaches that spans from the Atlantic shore to Napeague Bay, has 168 campsites that rented last year for \$18.50 a night during the season from early April-to mid November for periods of up to one week. The sites are booked each year months before the season opens.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX I

INTERVIEWS

APPENDIX I

INTERVIEWS

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CONVERSATION RECORD	TIME	DATE
	0745	9 November 1999
TYPE		
X VISIT	CONFERENCE	TELEPHONE INCOMING OUTGOING
NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Tom Dess	Montauk Point St. Park 50 South Fairvie Avenue Montauk, NY 1195	(516)668-3781
SUBJECT OE on or originat	ing from the for	mer Camp Hero,

Montauk, New York SUMMARY At the above specified time and date, Mr. Dess was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Dess began the interview by stating that he is the State Park Manager for six (6) parks in the Montauk complex of parks. He has worked in this capacity for 7 years, having exposure to the former Camp Hero throughout this period. Prior to his appointment to this position, however, he had visited the former Camp Hero in an unofficial capacity since the late 1970's. Throughout Mr. Dess's exposure to the former Camp Hero, he is aware of three incidents involving the discovery of OE on the camp. A former employee, Donald Balcuns, was a maintenance worker for the state whose place of duty was in a former Camp Hero building, used by the state as a maintenance facility. On a windowsill of this facility Mr. Balcuns had on display six artillery shells (projectiles) and two canon balls presumably found on the camp, with two of the projectiles being intact. The type, condition, and type of fuzing of the intact projectiles was unknown, however, the diameter of the projectiles described fit in the 75mm or 90mm category. The present location of these ordnance items is unknown, and the former employee (Donald Balcuns), although living in the Montauk Area, has suffered a stroke and would be incapable of being (continued on next page)

ACTION REQUIRED None

NAME OF PERSON DOCUMENTING COVERSATION Nicholas A. Iaiennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
SIGNATURE Caun	Health & Safety Specialist (UXO)	9 Nov 99

interviewed. A second incident involved the discovery of a projectile by a fisherman on the south side of the camp, on a trail by the bluffs. This occurred around 1992 or 1993. The local police would probably have a record of this discovery. A third incident involved the discovery of a projectile, around three years ago, by a fisherman on the south shore of the camp. State Park Policeman Eddie Powers and local police would have information of this discovery. Mr. Dess stated that he is not aware of any landfill area's on the former Camp Hero that were established during Army or Air Force usage of the property. However, a feasibility study performed by a private firm hired by the state identified numerous dumpsites in which rusted drums were discovered. Mr. Dess is not aware of any burial site evidence on the former camp or of any areas that will not support vegetation. Mr. Dess is not aware of the presence of any formal firing range evidence on the former camp, however, a circular area in the southwestern portion of the camp may have been associated with firing. Mr. Dess, in conclusion, provided several contacts that may have knowledge of activities at the former camp.

CONVERSATION RECORD		DATE				
	0945	9 November 1999				
TYPE						
X VISIT	CONFERENCE	—				
		INCOMING				
<u></u>		OUTGOING				
NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.				
	Montauk Point St					
James Schneidmuller	Park	(516) 668-3781				
	50 South Fairvie	·W				
	Avenue	4				
SUBJECT OE on or origina	Montauk, NY 1195					
Montauk, New York	ting from the for	rmer Camp Hero,				
SUMMARY At the above spe	cified time and	Nato Mr				
Schneidmuller was intervi						
ordnance or explosives (C		_				
former Camp Hero. Mr. Sch						
stating that he is a main		_				
Service. He has worked in						
exposure to the former Camp Hero throughout this period.						
From 1993 to 1995 Mr. Sch	neidmuller actua	lly worked in a				
former Camp Hero building						
building. Prior to Mr. Schneidmuller's employment with						
state he had visited the former Camp Hero in an unofficial						
capacity since 1969. Throughout Mr. Schneidmuller's exposure						
	to the former Camp Hero, he is aware of a few instances of					
ordnance discoveries. While working in the Camp Hero						
maintenance building duri						
former employee, Donald E						
display on a shelf. He re						
solid steel projectiles of						
description. The present						
and the place in which the						
the former employee is in						
be capable of responding stated that he personally						
	nued on next page					
ACTION REQUIRED	o page	/				
None						
NAME OF DEDGOV DOCUMENTING COMPROMITE						

NAME OF PERSON DOCUMENTING COVERSATION
Nicholas A. Iaiennaro

CEMVR-ED-DO

(309) 782-3044

SIGNATURE

Health & Safety
Specialist (UXO) 9 Nov 99

six years ago along the shoreline at extreme low tide. This discovery was slightly west of the southwestern boundary of the former Camp Hero. The item was left in place and was not reported or removed. Mr. Schneidmuller stated that ordnance debris is occasionally found weathering out of the bluff west of the sewer outflow pipe at the southern end of the former camp. In fact, he had in his possession one of these items of debris, which was an expended .50 caliber shell casing of 1942 vintage. Mr. Schneidmuller, throughout his exposure to the former Camp Hero, has never discovered any ordnance related dump sites, burial sites, firing ranges, or evidence of maneuver or chemical defense training on the former camp. He stated that he knows of no landfill on the former camp, he did, however hear and find evidence of the Army dumping station trash off the bluff by Battery 216, into the ocean. In conclusion, Mr. Scneidmuller provided the names of several additional interview sources and agreed to escort the inspection team to locations specified in the interview.

CONVERSATION RECORD	TIME	DATE
	1132	9 November 1999
TYPE		
X VISIT	CONFERENCE	TELEPHONE
		INCOMING
		OUTGOING
NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
	Montauk Point St	ate
Frank Silipo	Park	(516)668-3781
	50 South Fairvie	w
	Avenue	
	Montauk, NY 1195	4

SUMMARY At the above specified time and date, Mr. Silipo was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Silipo began the interview by stating that he is the Administrative Manager for the State Park Service at Montauk. He has worked in this capacity since 1989, having exposure to the former Camp Hero throughout this period. Prior to Mr. Silipo's employment with the state he had visited the former Camp Hero in an unofficial capacity since 1960. From 1960 to 1989 his sisters husband was the State Park Manager at Montauk. He would visit his sister, and during the visits, explore the former Camp Hero. He explored a considerable portion of the former camp, never discovering any actual ordnance and explosives items. On one occasion, however, Coast Guard and Air Force dependent children showed him an area near the east gate of the former camp which contained expended small arms casings, empty ammo cans, and some general rubbish such as ration debris (marked on map). During his period of exposure to the camp, Mr. Silipo never witnessed or discovered evidence of chemical defense training. Mr. Silipo never discovered any areas that would not support vegetation. Mr. Silipo never discovered any actual burial sites or former or present station landfills.

(continued on next page)

ACTION REQUIRE

NAME OF PERSON DOCUMENTING COVERSATION Nicholas A. Iaiennaro	organization CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
be lof G. Jan.	Health & Safety Specialist (UXO)	9 Nov 99

Mr. Silipo is not aware of any incidents or accidents resulting from the discovery of remaining OE on or removed from the former Camp Hero. In conclusion, Mr. Silipo provided the names of additional interview sources.

				_	
CONVE	RSATION RECORD)	TIME	DAT	E
			1300	11	November 1999
TYPE					
	X VISIT		CONFERENCE		TELEPHONE
					INCOMING
					OUTGOING
	PERSON CONTACTED	OR	GANIZATION		TELEPHONE NO.
Antonio	Ganga	1	O. Box 258		
		Wa	inscott, NY		(516)537-3950
			11975		
SUBJECT	OE on or origina	tir	ng from the for	mer	Camp Hero.

SUMMARY At the above specified time and date, Mr. Ganga was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Ganga began the interview by stating that he was a Ordnance Ammunition Officer (Lieutenant) stationed at Fort Totten, New York, from December 1955 to November 1957. Fort Totten was the major command for subordinate Antiaircraft Artillery units in the New York area. Mr. Ganga was responsible for inspecting all of the subordinate unit ammunition storage sites, to include the one at Camp hero, to determine the condition of the ammunition stored. Mr. Ganga stated that 90mm mobile guns were fired from Camp Hero. 90mm ammunition was stored in the old 6-Inch gun battery at Camp Hero. 90mm gunfire occurred from Camp Hero, the guns fired at drones from bluffs facing the Atlantic. Mr. Ganga stated that any unserviceable ammunition from Camp Hero was sent to Raritan Arsenal in New Jersey for disposal. Mr. Ganga is not aware of the conduct of any chemical defense training at Camp Hero. Mr. Ganga could recall one ordnance related accident occurring at Camp Hero. In 1955, upon his arrival to Fort Totten, he was detailed to investigate a 90mm gun accident in which a soldier was killed at Camp Hero. A faulty feed mechanism caused the breech to open and a 90mm round to eject rearward following propellant ignition. The round struck a soldier killing him. (continued on next page)

ACTION REQUIRED

Montauk, New York

NAME OF PERSON DOCUMENTING COVERSATION Nicholas A. Iaiennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
SICNATURE Care	Health & Safety Specialist (UXO)	DATE 11 Nov 99

In conclusion, Mr. Ganga stated that a rifle and pistol range was present at Camp Hero, somewhere inland, which contained makeshift targets. He couldn't describe the exact location.

CONVERSATION RECORD)	TIME 1400	DAT 11	E November 1999
TYPE X VISIT		CONFERENCE		TELEPHONE INCOMING OUTGOING
NAME OF PERSON CONTACTED Trevor Kelsall	17	GANIZATION 1 Newtown Lane sthampton, NY 11937		TELEPHONE NO. (516) 324-1556

SUMMARY At the above specified time and date, Mr. Kelsall was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Kelsall began the interview by stating that he is a lifetime area resident. Mr. Kelsall stated that in the early 1940's, while in school, he witnessed trains passing, which were destined for Montauk, from the schoolhouse windows. These trains were bearing armored personnel carriers, ambulances, and half-tracks. Mr. Kelsall said that train driven Macks originating from Westbury, New York, also passed frequently delivering concrete to Camp Hero for the qun batteries. Mr. Kelsall often heard firing occurring from the Montauk area in the early 1940's. The firing would cause the windows to rattle. Mr. Kelsall is not sure which branch of service was performing this firing. Mr. Kelsall stated that Antiaircraft Artillery units would convoy through the area to Camp Hero in the late 1940's to 1950's. The convoys would be towing three or four 90mm guns. Mr. Kelsall stated that another local resident, Ben Tyler, discovered a target drone in the woods at Hither Hills, which is west of Camp Hero. Mr. Kelsall did not witness or hear of the conduct of chemical defense training at the former Camp Hero. Mr. Kelsall is not aware of any incidents or accidents resulting from the discovery of remaining OE on or removed from the (continued on next page)

ACTION REQUIRED

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Nicholas A. Iaiennaro	CEMVR-ED-DO	(309) 782-3044
SIGNATURE Comments	Health & Safety Specialist (UXO)	11 Nov 99

CONVERSATION RECORD)	TIME	DAI	E
		1800	11	November 1999
TYPE X VISIT		CONFERENCE		TELEPHONE INCOMING OUTGOING
NAME OF PERSON CONTACTED George Campbell	84	AGANIZATION Meadow Way sthampton, NY 11937		TELEPHONE NO. (516) 324-1217

At the above specified time and date, Mr. Campbell was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Campbell began the interview by stating that he was a Cable Splicer for the New York Telephone Company from 1955 to 1980. His place of duty was Camp Hero, primarily servicing the complex communications system for the Air Force portion of Camp Hero known as the Montauk Air Force Station. Mr. Campbell stated that Army ordnance firing took place at Camp Hero during the first few years of his employment there, from the south side of the camp facing the ocean. Mr. Campbell stated that smaller projectiles (believed to be .50 cal and 20mm to 40mm) were fired at a launched drone. A barge target was also towed in the ocean in which small and large projectiles fired at. There were three permanent firing positions along the southern bluff of the camp in which the Army fired from. Mr. Campbell serviced the communication lines to them. The drones were launched from a field on the southwestern portion of the camp. Mr. Campbell stated that small arms firing also took place at a crude small arms range on the south side of the NCO Club. Mr. Campbell stated that station trash from the base was thrown over the bluffs on the south side into the ocean. Mr. Campbell did not witness or hear of the conduct of chemical defense training at the former Camp Hero. Mr. Campbell is not aware of any incidents or accidents resulting from the discovery of remaining OE on or removed from the camp.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING COVERSATION Nicholas A. Iaiennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
STONATURE CO. Day	Health & Safety Specialist (UXO)	DATE 11 Nov 99

CONVERSATION RECORD)	TIME	DAT	E
		1830	11	November 1999
TYPE			· · · · · · · · · · · · · · · · · · ·	
X VISIT		CONFERENCE		TELEPHONE INCOMING OUTGOING
NAME OF PERSON CONTACTED	OF	RGANIZATION		TELEPHONE NO.
Joseph Disunno		Bluff Road magansett, NY 11930		(516)267-3311
SUBJECT OF on or original	tir	og from the for	mar	Camp Horo

At the above specified time and date, Mr. Disunno was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Disunno began the interview by stating that he is a lifetime area resident who has lived in the vicinity of the former Camp Hero since 1924. Mr. Disunno stated that in 1942 he was employed by a concrete contractor who was pouring the concrete for two (2) of the gun batteries of Camp Hero. Mr. Disunno assisted in the construction of two (2) 16-Inch gun batteries. In August of 1943 Mr. Disunno entered the Army where he served in an Antiaircraft Artillery Battalion until his release from service in December of 1945. Mr. Disunno returned to the Montauk area following his period of service and has lived there since. Mr. Dissunno remembers the passing of convoys hauling guns through the area to Camp Hero in the late 1940's through the 1950's. He does not recall the type of guns. Mr. Disunno did not witness or hear of the conduct of chemical defense training at the former Camp Hero. Mr. Disunno is not aware of any incidents or accidents resulting from the discovery of remaining OE on or removed from the former Camp Hero. In conclusion, Mr. Disunno provided the name of an additional interview source.

None		
NAME OF PERSON DOCUMENTING COVERSATION Nicholas A. Iajennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
STORATURE CALL	Health & Safety Specialist (UXO)	11 Nov 99

CONVERSATION RECORD	TIME	I	DATE			
	1910	1	ll Nov	vember 1999		
TYPE						
X VISIT	Co	NFERENCE		TELEPHONE		
				INCOMING		
			-	OUTGOING		
NAME OF PERSON CONTACTED	ORGANIZA	TION	TE	ELEPHONE NO.		
Anthony Cangiolosi		onac Road				
	Easthamp	ton, NY	(5	516) 324-4019		
		11937				
SUBJECT OE on or origina	ting from	n the form	er Ca	mp Hero,		
Montauk, New York		· · · · · · · · · · · · · · · · · · ·				
SUMMARY At the above spe	cified ti	lme and da	te, M	r.		
Cangiolosi was interviewe	d concern	ning his k	nowle	dge of		
ordnance or explosives (O	E) report	ed or dis	cover	ed on the		
former Camp Hero. Mr. Can						
stating that he is a life						
the vicinity (in the same	stated th	ant in 194	er ca	mp hero for		
73 years. Mr. Cangiolosi stated that in 1942 he was employed by the Corps of Engineers to assist in the camouflaging of						
the gun emplacements (batteries) of Camp Hero. Mr.						
Cangiolosi assisted for almost a year in the placement of						
natural vegetation, as part of a group of thirty men, on top						
of the batteries and fire control stations of Camp Hero.						
Native vegetation planted included Roses, Bayberry, Red						
Maple, and Beach Grass. I	n April o	of 1943, M	r. Ca	ngiolosi		
entered the Navy where he served until his release from						
service in 1945. Mr. Cangiolosi returned to the Montauk area						
following his period of service and has lived there since.						
Mr. Cangiolosi stated that during World War II approximately						
15,000 men of all services were stationed in the Montauk area. Mr. Cangiolosi remembers the passing of convoys						
hauling artillery pieces						
the 1940's and 1950's, th	ev would	pass thro	ugh a	round every		
two months. He does not k	now the t	type(s) of	arti	llerv pieces		
hauled. He also recalls t	he closus	re of the	water	way in front		
of the south side of Camp	Hero for	r firing p	racti	.ce, and a		
(contin	ued on ne	ext page)		·		

ACTION REQUIRED

Name of Person documenting coversation Nicholas A. Iaiennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
signature au '	Health & Safety Specialist (UXO)	11 Nov 99

boat towing targets for the firing practice. Mr. Cangiolosi could also recall hearing the occasional firing of large guns prior to entering service in 1943. Mr. Cangiolosi did not witness or hear of the conduct of chemical defense training at the former Camp Hero. Mr. Cangiolosi is not aware of any incidents or accidents resulting from the discovery of remaining OE on or removed from the former Camp Hero.

CONVE	RSATION RECORD		TIME 0800	DAT 12	E November 1999
TYPE	X VISIT [CONFERENCE		TELEPHONE INCOMING OUTGOING
NAME OF	PERSON CONTACTED	OR	GANIZATION		TELEPHONE NO.
LT John	Claflin	De 159	st Hampton Po epartment 9A Pantiago P st Hampton, N 11937	lace	(516)324-0024
SUBJECT	OE on or originat	tin	a from the fo	rmer	Camp Hero.

At the above specified time and date, LT Claflin, of the above specified agency, was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. LT. Claflin began the interview by stating that he has been a member of the above specified agency since 1970. This agency provides police services to Montauk, and has a sub-post at that location. Shortly after joining the department, he recalls the discovery of a projectile, 2 feet long and around 6 inches in diameter, east of Ditch Planes on the shore. This item was discovered by fisherman, and apparently had a shipping plug in the nose of the item. Since then, he believes around 10-12 ordnance discoveries have been made in the Camp Hero area (Area K). He will search the archives and fax the reports if found. LT. Claflin is not aware of the discovery of any chemical warfare related materials on or associated with Camp Hero. LT. Claflin is not aware of any accidents resulting from the discovery of remaining OE on or removed from Camp Hero land. In conclusion, LT. Claflin provided the names of potential interview sources.

ACTION REQUIRED None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Nicholas A. Iaiennaro	CEMVR-ED-DO	(309) 782-3044
SIGNATURE	Health & Safety	DATE
L belof G Dave	Specialist (UXO)	12 Nov 99

CONVERSATION RECORD	TIME	DATE				
	1400 12		November	1999		
TYPE						
VISIT	CONFERENCE	Γ	X TELEPI	HONE		
<u></u>		<u> </u>		COMING		
				rgoing		
NAME OF PERSON CONTACTED	ORGANIZATION		TELEPHON			
NAME OF FERNOON CONTACTED	S. Fairview Aven	1	TELLEPHON	E NO.		
Robert Tuma	Montauk, NY 1195	•	(516) 668	-2357		
	L					
-	ting from the for	mer (Camp Her	0,		
Montauk, New York						
SUMMARY At the above spe				a was		
interviewed concerning hi						
explosives (OE) reported						
Hero. Mr. Tuma began the						
lifetime local resident.						
from 1942 to 1945 to serv						
pilot in the Navy. Upon h						
to Montauk and became a c						
recall Army Anti-Aircraft						
the early 1950's until th						
stated that the waterway Caswell Point would be re						
				-		
during that time, and the miles offshore. Large cal						
targets from Camp Hero on weekdays. Mr. Tuma could recall						
observing and hearing, from outside the restricted areas, the detonation of these large projectiles 10 to 12 miles						
offshore. Mr. Tuma could recall only one ordnance associated						
incident/accident occurring in the Montauk area. A local						
fisherman's son, Stan Nagle, was killed when trying to cut						
open a 3" projectile with a torch. This incident occurred in						
the 1950's. The projectile was discovered at an unknown						
location in Montauk, possibly dredged from Montauk Harbor.						
Mr. Tuma also stated that the fixed guns at Camp Hero, the						
(continued on next page)						
ACTION REQUIRED						
None						
NAME OF PERSON DOCUMENTING COVERSATIO	N ORGANIZATION		TELEPHONE NU			
Nicholas A. Iaiennaro	CEMVR-ED-DO			2-3044		
SIGNATURE	TITLE	T	DATE			
$(\setminus ())))) $	Health & Safe	- 1	10 27 - 1	١٥		
hohory have	Specialist (U	VO)	12 Nov 9	19		

6-inch and 16-inch guns, were never fired to his knowledge. Mr. Tuma stated that he never witnessed or heard about the conduct of chemical defense training at Camp Hero. In conclusion, Mr. Tuma provided the names of additional interview sources.

CONVERSATION RECORD		TIME	DAT	ATE		
		1445	12	Novemb	oer 1999	
TYPE						
VISIT		CONFERENCE		X TE	LEPHONE	
					INCOMING	
				X	OUTGOING	
NAME OF PERSON CONTACTED	OF	RGANIZATION		TELEP	HONE NO.	
	Fa	irlawn Drive				
Frank Tuma	Mc	ontauk, NY 1195	4	(516)	668-2830	
SUBJECT OE on or origina Montauk, New York	tiı	ng from the for	mer	Camp	Hero,	
MOHLAUK, NEW YORK						

SUMMARY At the above specified time and date, Mr. Tuma was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Tuma began the interview by stating that he is a lifetime local resident. Mr. Tuma assisted a private firm in the construction of the 16-inch batteries at Camp Hero when in High School. Around the 1942 time frame, Mr. Tuma recalls observing convoys entering Camp Hero. He believes that artillery pieces were present in the convoys. Mr. Tuma departed the Montauk area only from 1942 to 1946 to serve during World War II as a communications navigation officer in the Navy. Upon his return from the war he returned to Montauk and has remained there since. Mr. Tuma could recall that the Atlantic in front of Camp Hero was restricted from 1948 or 1949 until sometime in the 1950's. This was attributed to the firing of artillery at Camp Hero. Mr. Tuma could not recall any ordnance associated incidents/accidents resulting from ordnance discovered at or associated with Camp Hero. Mr. Tuma could not recall observing or hearing about the conduct of chemical defense training at Camp Hero. Mr. Tuma, in conclusion, provided the names of additional interview sources.

Name of person documenting coversation Nicholas A. Iaiennaro

CEMVR-ED-DO

TITLE
Health & Safety
Specialist (UXO) 12 Nov 99

ACTION REQUIRED

CONVERSATION RECORD)	TIME	DAT	E
		1515	12	November 1999
TYPE				
VISIT		CONFERENCE		X TELEPHONE
		·		INCOMING
				X OUTGOING
NAME OF PERSON CONTACTED	OF	RGANIZATION		TELEPHONE NO.
	83	Davis Drive		
Ken Jacob	Mc	ontauk, NY 1195	4	(516) 668-3525
SUBJECT OE on or origina	tir	ng from the for	mer	Camp Hero,
Montauk, New York				

SUMMARY At the above specified time and date, Mr. Jacob was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Jacob began the interview by stating that he served with the Air Force's 773rd Radar Squadron as the Computer Section Chief at Camp Hero, then known as the Montauk Air Force Station, from 1964 through 1973. Mr. Jacob stated that during his tour of duty no Army activity took place at Camp Hero. Mr. Jacob stated that a portion of the abandoned Army 16-inch Battery 212 was used for the storage of Air Force equipment and supplies. It was also used as a shelter for station personnel and local civilian residents during hurricanes. Mr. Jacob also stated that a gun point circle of the abandoned Army 6-inch battery 216 was used as a training area for fire fighting personnel. Mr. Jacob was aware of the presence of an informal small arms range on Camp Hero, the only range present to his knowledge. A crude berm near the station power plant was used for weapons qualification. During Mr. Jacobs's tour of duty at Camp Hero, he is not aware of the discovery of any items of OE or OE residue or of any accidents associated with the discovery of OE on or off base. He is also not aware of the conduct of any type of chemical defense training or the discovery of any chemical defense training materials. In conclusion, Mr. Jacob stated that the 773rd,'s mission involved the radar coverage for a 200-mile portion of the Eastern Air Defense Force Area, protecting the area against foreign air attack.

ACTION REQUIRED None

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Nicholas A. Iaiennaro	CEMVR-ED-DO	(309) 782-3044
SIGNATURE	TITLE	DATE
	Health & Safety	
1 becholl have	Specialist (UXO)	12 Nov 99

CONVERSATION RECORD)	TIME	DAT		
		1540	12	тоИ	vember 1999
TYPE		CONFERENCE		X	TELEPHONE INCOMING OUTGOING
NAME OF PERSON CONTACTED	OF	RGANIZATION		TE	LEPHONE NO.
Eugene Beckwith	1	B Davis Drive Ontauk, NY 119	54	(5	516)668-4807
SUBJECT OE on or origina	tir	ng from the for	mer	Ca	mp Hero,
Montauk, New York					
was interviewed concerning explosives (OE) reported Hero. Mr. Beckwith began a lifetime local resident 1925. He departed the Monserve during World War II recall Army Anti-Aircraft Camp Hero from the late 1 1950's. Mr. Beckwith state tow the guns across the State This was a real problem by withstand the weight of the combined. The trucks would without the guns attached Beckwith stated that the restricted during that the behind boats, with one mind from the targets, for the could not recall any order resulting from ordnance of Camp Hero. Mr. Beckwith, an additional interview state Action Required	or the whitan in 1940 sed because of the less of the l	discovered on discovered on e interview by ho has lived in the Navy. Mr. It illery units of the the midden that these units area to drive a then winch the ean in front of frame. Targets long lines sepuns to fire at. The covered at or a covered at or a conclusion, property of the conclusion	of on the state of the state of the town o	rdn for	ance or rmer Camp g that he is rea since 2 to 1946 to ith can guns to latter ld have to to Montauk. not uns the bridge cross. Mr. Hero was be towed g the boats eckwith ts/accidents ted with ng or aining at
None					
NAME OF PERSON DOCUMENTING COVERSATIO	en .	ORGANIZATION		TEL	EPHONE NUMBER

NAME OF PERSON DOCUMENTING COVERSATION Nicholas A. Iaiennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
SIGNATURE (Health & Safety Specialist (UXO)	12 Nov 99

CONVERSATION RECORD		DAT	'E				
	1900	12	roN	vember 1999			
TYPE							
VISIT	CONFERENCE		X	TELEPHONE			
				INCOMING			
			X	OUTGOING			
NAME OF PERSON CONTACTED	ORGANIZATION		TE	LEPHONE NO.			
	Signal Hill						
Don Foley	Montauk, NY 1195	4	(5	16) 668-5776			
SUBJECT OE on or origina	ting from the for	mer	Ca	mp Hero,			
Montauk, New York							
SUMMARY At the above spe	cified time and c	late,	, M	r. Foley was			
interviewed concerning hi	s knowledge of or	dnar	nce	or			
explosives (OE) reported	or discovered on	the	fo.	rmer Camp			
Hero. Mr. Foley began the	interview by sta	ting	g t	hat he is a			
property owner of a porti	on of the former	Camp	э Н	ero in which			
a radar installation was property since 1976, but	once present. He	nas 'anta	OW:	ned the			
1957. Mr, Foley has never	discovered OF or	IONU	auk	Area since			
property and has never he	ard of the discou	OE	ae.	OF Alco			
property and has never heard of the discovery of OE. Also, Mr. Foley is not aware of any accidents resulting from the							
discovery of OE on Camp Hero or in the area. Mr. Foley has							
never heard of or witnessed the conduct of chemical defense							
training on Camp Hero. Mr. Foley has never discovered or							
heard of the discovery of any chemical defense related							
training materials on Camp Hero or in the area. In							
conclusion, Mr. Foley stated that he has a water well on the							
property which was dug to 140 feet. This well was tested and							
determined to contain pure water.							
ACTION REQUIRED							
None							
= · = =							

Name of person documenting coversation Nicholas A. Iaiennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
SIGNATURE (Health & Safety Specialist (UXO)	DATE 12 Nov 99
		1-14

CONVERSATION RECORD)	TIME	DAT	_		
		2000	16	гоИ	vember 1999	
TYPE					_	
U VISIT	<u> </u>	CONFERENCE		X	TELEPHONE	
				-	INCOMING	
NAME OF PERSON CONTACTED	OF	RGANIZATION		X	OUTGOING LEPHONE NO.	
		ites Avenue		16	LEPHONE NO.	
John DeSousa	Мс	ontauk, NY 1195		1	16)668-3992	
SUBJECT OE on or origina Montauk, New York	tir	ng from the for	mer	Cai	mp Hero,	
SUMMARY At the above spe	cii	fied time and d	ate,	. M :	r. DeSousa	
was interviewed concerning	ig h	nis knowledge o	f or	rdna	ance or	
explosives (OE) reported Hero. Mr. DeSousa began t	or	discovered on	the	to:	rmer Camp	
an Air Force Air Policema	n s	stationed with	the	1119 77	indi ne was 3 rd Radar	
Squadron at the Air Force	po	ortion of Camp	Hero) , (known as the	
Montauk Air Force Station	1, 1	from 1956 throu	.gh 1	L95.	9. Mr.	
DeSousa stated that during his tour of duty at Montauk, Army						
Anti-Aircraft Artillery units would arrive on weekends and spend two weeks at Camp Hero. They would fire small caliber						
mobile guns at radio cont	rol	lled planes. Th	e ro	אמנור ממנור	dii Caliber ds fired	
would not give off a loud report after detonating. However,						
a puff of smoke would be	vis	sible. The targ	et p	olar	nes would	
fly from west to east on the south side of Camp Hero over						
the ocean, with the guns positioned on the southern bluffs						
firing towards the south (also over the ocean). Mr. DeSousa stated that the Army did not have many permanent party						
personnel stationed at Camp Hero. There was a limited staff						
present to support the units that would come to fire only.						
Mr. DeSousa was aware of the presence of an informal small						
arms range on Camp Hero, the only range present inland to his knowledge. The southern berm of Battery Dunn (113) was						
used for qualification fi	rn	perm of Batter	y Di	ınn	(113) was	
caliber carbines. Makeshi	ft	targets would	pe r	ola.	ced at this	
location with the battery	be	erm as a backdr	op t		catch the	
bullets. During Mr. DeSou	ısa'	's tour of duty	at	Ca	mp Hero, he	
ACTION PROMIPED (contin	uec	d on next page)	<u>-</u> .			

ACTION REQUIRED

Name of person documenting coversation Nicholas A. Iaiennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
STOWATURE Can Can	Health & Safety Specialist (UXO)	DATE 16 Nov 99

did not participate in, witness, or hear about the conduct of chemical defense training. Mr. DeSousa never discovered or heard about the discovery of OE, or of any incidents or accidents associated with the discovery of OE, throughout his tour of duty at Camp Hero. He stated that being a Air Policeman, he would have been the first to know of any such discoveries or incidents or accidents. Mr. DeSousa stated that he had never discovered any areas on Camp Hero that were devoid of vegetation, areas that appeared to be burial sites, or any station landfills. Mr. DeSousa stated that all station trash was hauled to an off-base landfill off of Flamingo Road, with the exception of mess hall vegetation. This went to a local pig farmer. The station trash was hauled off-base by a person named Ed Volk. In conclusion, Mr. DeSousa recalled a couple of items that seemed unusual to him. A man believed to be from the Central Intelligence Agency or the Office of Naval Intelligence lived in a trailer on the Army side of Camp Hero. His purpose, supposedly, was to monitor Russian submarine presence in the area. Another Army gentleman was TDY at the Air Force Base. This person supposedly acted as a liaison.

CONVER	SATION RECORD)	TIME	DAT	E	
			0900	23	Nove	mber 1999
TYPE						
	VISIT		CONFERENCE		XT	ELEPHONE
						INCOMING
					X	OUTGOING
NAME OF	PERSON CONTACTED	OF	RGANIZATION		TELI	EPHONE NO.
		19	40 E. Long Str	eet		
Jeffrey	Repsher	Ca	rson City, NV		(775	5)887-1262
			89706			
SUBJECT	OE on or origina	tir	ng from the for	mer	Camp	Hero,

At the above specified time and date, Mr. Repsher was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Repsher began the interview by stating that he was stationed at the Air Force portion of the former Camp Hero, known as the Montauk Air Force Station, from 1964 to 1968. He was a Radar Technician assigned to the 773rd Radar Squadron. Throughout his period of service, Mr. Repsher investigated all Camp Hero property. This was a personal endeavor based on his extreme interest. During his personal search, he never discovered any live OE items. Mr. Repsher, during a search of the old hotel building (now removed) on the southeastern portion of the reservation, discovered army exercise debris to include small arms shell casings and canteens. During Mr. Repsher's investigation of the abandoned army infirmary, he discovered beds, other furnishings, medical records, scalpels and other assorted medical utensils. He was perplexed why the Army failed to clear the building upon departure. It appeared that they left in a hurry. Mr. Repsher stated that he investigated the battery complexes during his tour of duty at Camp Hero. He entered and explored three of them that were accessible at the time, never finding any evidence of OE. Mr. Repsher stated that he has returned to visit Camp Hero recently, and (continued on next page)

ACTION REQUIRED

Montauk, New York

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Nicholas A. Iaiennaro	CEMVR-ED-DO	(309) 782-3044
SICNATURE	TITLE	DATE
	Health & Safety	
hockor G! Jan	Specialist (UXO)	11 Nov 99

access to the bunkers is now prevented. He mentioned that externally, the only difference that is noticeable, was the absence of a wooden fire control structure, described to have been on Battery 216, and the concrete closure of the access doors. Mr. Repsher stated that his organization performed .30 caliber carbine qualification firing on the south side of a former battery, described to have been Battery Dunn (113). Makeshift targets were set up against the batteries earthen berm for qualification. No other form of qualification (i.e. grenade, projectile, etc.) occurred by station personnel during his tour of duty. No other ranges were established or used by station personnel during his tour of duty. Mr. Repsher recalled a training mission by Army Special Forces personnel at Camp Hero. Around 1966, Special Forces paratroopers dropped into the tennis court area one evening, presumably unannounced. He persuaded an Air Force Policeman to refrain from opening fire on them. They went into the woods for a week of training, after which they emerged and went into the NCO Club for a drink prior to departing. Mr. Repscher did not participate in or hear of the conduct of chemical defense training at the former Camp Hero. Mr. Repsher is not aware of any incidents or accidents resulting from the discovery of remaining OE on or removed from the former Camp Hero. In conclusion, Mr. Repsher provided the names of additional interview sources.

CONVERSATION RECORD	TIME 1400	DATE 5 January 2000
TYPE VISIT	CONFERENCE	X TELEPHONE INCOMING X OUTGOING
NAME OF PERSON CONTACTED	ORGANIZATION	TELEPHONE NO.
Edward Hill	P.O. Box 1343 Charleston, RI 02813	(401) 364-3353
SUBJECT OE on or origina	ting from the for	mer Camp Hero.

SUBJECT OE on or originating from the former Camp Hero, Montauk, New York

SUMMARY At the above specified time and date, Mr. Hill was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Hill began the interview by stating that he is an Army veteran who was stationed at Fort H. G. Wright on Fishers Island from 1940 to 1943. He worked as a supply person at this installation, ordering all the supplies for his organization, the 242nd Coast Artillery Regiment. Mr. Hill stated that Fort H. G. Wright was the major command for all of the Harbor Defense Installations of Long Island Sound, to include Fort Michie on Great Gull Island, Fort Terry on Plum Island, and Camp Hero at Montauk Point, Long Island, New York. Mr. Hill stated that the 11th Coastal Artillery Regiment (Regular Army) was the controlling organization at Fort H. G. Wright, and was later joined by the 242nd Connecticut National Guard Coast Artillery Regiment. Members of these organizations manned the individual Coastal Defense Batteries to include Camp Hero. Mr. Hill stated that he knew that 16-inch Gun Batteries were located and functioning at Fort Terry, Fort Michie, and Camp Hero. A 16-inch gun battery was also built at Fort H. G. Wright, and the guns were delivered, however, the guns were never installed. An antiaircraft battery of 3-inch guns and 155mm guns was present at Fort H. G. Wright, which frequently practice fired the guns, utilizing high explosive rounds. Mr. Hill stated that battery guns at all the command (continued on next page)

ACTION REQUIRED

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Nicholas A. Iaiennaro	CEMVR-ED-DO	(309) 782-3044
SIGNATURE	Hoalth & Cafety	DATE
(habol G. Dan	Health & Safety Specialist (UXO)	5 Jan 2000

installations were required to fire the guns in practice, never in hostility to his knowledge, at regular intervals. 16-inch guns were fired less frequently due to the damage they caused to residence windows and complaints. Mr. Hill stated, in example, that at Fort Michie the 16-inch guns, utilizing unknown types of rounds, practice fired every three to four months. The frequency at Camp Hero is unknown, but believed to be similar. Mr. Hill stated that a point of interest should be related. The commander of Fort H. G. Wright at the time of his service there was Tom Jones. He was an Anapolis graduate who preferred to become an Army Officer. In conclusion, Mr. Hill stated that he is not aware of the order or receipt of Chemical Agent Training kits during his period of service at Fort H. G. Wright. The only chemical defense training conducted at Fort H. G. Wright, to his knowledge, consisted of mask confidence exercises. These were conducted in a gas chamber utilizing irritant agents. He is uncertain if these exercises were conducted at Camp Hero. He is additionally unaware of any ordnance related incidents or accidents associated with any of the command's installations and believes that any unserviceable or excess ammunition at Fort H. G. Wright installations were shipped off the installations for disposal or reuse.

CONVERSATION RECORD)	TIME	DAT	E	
		0800	14	Feb	ruary 2000
TYPE		Name of the second seco			
VISIT	X	CONFERENCE		X	TELEPHONE
					INCOMING
				X	OUTGOING
NAME OF PERSON CONTACTED	OF	RGANIZATION		TE	LEPHONE NO.
	Nε	ew York State P	ark		
Edward Powers	5	Service		(5	16) 669-2500
	Р.	O. Box 247	i		
	Вa	abylon, NY 1170	2		
SUBJECT OE on or origina	tir	ng from the for	mer	Ca	mp Hero,

SUMMARY At the above specified time and date, Mr. Powers was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Powers began the interview by stating that he is a State Park Police Officer for the above specified agency, and has worked in this capacity for 11 years. He was assigned to the former Camp Hero from 1992 until 1999. Around 1996 or 1997, he responded to an incident involving the discovery of an ordnance item on the southern oceanfront area of the former camp, an item that had been discovered by a fisherman. The area of the discovery was an area west of the drainage effluent pipe, in the area identified as the ordnance disposal area of this report (Area J). The item was described as being eight to twelve inches long and three to four inches in diameter with three fins. A further description provided described the general features of a 3.5-inch rocket. Mr. Powers stated that the Suffolk County Police Bomb Squad responded to the incident. Members of that organization stated that the item was live and removed it. Mr. Powers did not personally respond to any other ordnance related incidents or did not personally discover any ordnance items at Camp Hero during his period of assignment there. However, Mr. Powers stated that he has heard that a lot of items have washed up on the shore of the former camp.

ACTION REQUIRED
None

Montauk, New York

NAME OF PERSON DOCUMENTING COVERSATION Nicholas A. Iaiennaro	ORGANIZATION CEMVR-ED-DO	TELEPHONE NUMBER (309) 782-3044
SIGNATURE ()	Health & Safety Specialist (UXO)	14 Feb 2000

CONVERSATION RECORD)	TIME	DATI	7
		0830	14 F	February 2000
TYPE				
VISIT	X	CONFERENCE		X TELEPHONE
				INCOMING
				X OUTGOING
NAME OF PERSON CONTACTED	ORG	ANIZATION		TELEPHONE NO.
	Suf	folk County Pol	lice	
SGT Bruce Peyton	De	partment Emerge	ency	(516)669-2500
	Se	rvices Division	ח	
	217	3 Smithtown Ave	enue	
	Ron	konkoma, NY 11	779	
SUBJECT OE on or origina	ating	g from the form	er C	amp Hero,
Montauk, New York				
SUMMARY At the above spe	ecif:	ied time and da	te,	SGT Peyton,

of the Bomb/Arson unit of the above specified organization, was interviewed concerning his knowledge of ordnance or explosives reported or discovered on the former Camp Hero. SGT Peyton began the interview by stating that he has been with the Suffolk County Police Department Emergency Services Division Arson/Explosives unit for 18 years, with a total service time in the Suffolk County Police Department of 36 years. His organization is normally notified of all ordnance and explosive incidents that occur in Suffolk County. SGT Peyton stated that he is aware of former military usage of Camp Hero, and is aware of the discovery of ordnance items in that area. To the best of his recollection, though, all items discovered were devoid of energetic material. He stated that he would have his records clerk check all ordnance incidents that his unit responded to on the eastern end of Long Island and send this information. SGT Peyton stated that the majority of their military related responses in Suffolk County are to the former Camp Upton area in Yaphank, New York. They have recovered hand grenades, mortars, land mines, and projectiles dating back to as far as the Civil War in this area. Some of the items discovered were Japanese and (continued on next page)

ACTION REQUIRED

NAME OF PERSON DOCUMENTING COVERSATION	ORGANIZATION	TELEPHONE NUMBER
Nicholas A. Iaiennaro	CEMVR-ED-DO	(309) 782-3044
SIGNATURE	TITLE	DATE
$\bigcap_{i} \bigcap_{i} \bigcap_{j} \bigcap_{j} \bigcap_{i} \bigcap_{j} \bigcap_{i} \bigcap_{j} \bigcap_{j} \bigcap_{j} \bigcap_{i} \bigcap_{j} \bigcap_{j$	Health & Safety	
habble G. Jane	Specialist (UXO)	14 Feb 2000

British. SGT Peyton stated that some of the former Camp Upton lands, in which ordnance items have been discovered, are under the control of the Brookhaven National Laboratories, and some of lands where items were discovered are outside of the laboratories' current boundaries.

CONVERSATION RECORD		TIME	DATE			
		1730	15	Feb	oruary 2000	
TYPE						
VISIT	X	CONFERENCE			TELEPHONE	
_					INCOMING	
				x	OUTGOING	
NAME OF PERSON CONTACTED	OF	RGANIZATION		TE	LEPHONE NO.	
Donald Terrance Cox	Ρ.	O. Box 222				
	Ma	assapequa, NY 11758		(5	516) 537-3950	
SUBJECT OE on or originating from the former Camp Hero,						
Montauk, New York						

SUMMARY At the above specified time and date, Mr. Cox was interviewed concerning his knowledge of ordnance or explosives (OE) reported or discovered on the former Camp Hero. Mr. Cox began the interview by stating that he served at Fort Hancock, New Jersey, as a jeep mechanic for a 90mm AAA battalion from 1957 to 1958. Around November 1957, Mr. Cox was required to travel with his battalion to Camp Hero, New York, where they conducted firing practice for a few The battalion fired 90mm guns from points on the southern bluff of Camp Hero southward towards the ocean, at targets towed by planes. The types of rounds fired are Quad .50 caliber machine guns and 3.5-inch rockets were also fired for familiarization towards the ocean. Cox stated that firing of any weapon would not have been directed inland. Mr. Cox stated that while at Camp Hero, all personnel stayed in old barracks buildings. stated that no form of chemical defense training occurred at Camp Hero during the battalion's short training exercise Mr. Cox provided pictures of the aforementioned training exercise which illustrated some of the firing conducted at Camp hero and a fire control structure of Camp Hero.

None

Name of person documenting coversation
Nicholas A. Iaiennaro

SIGNATURE

Health & Safety
Specialist (UXO)

Specialist (UXO)

TELEPHONE NUMBER
(309) 782-3044

TITLE
Health & Safety
Specialist (UXO)

To Feb 2000

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX J

PRESENT SITE PHOTOGRAPHS

APPENDIX J

PRESENT SITE PHOTOGRAPHS

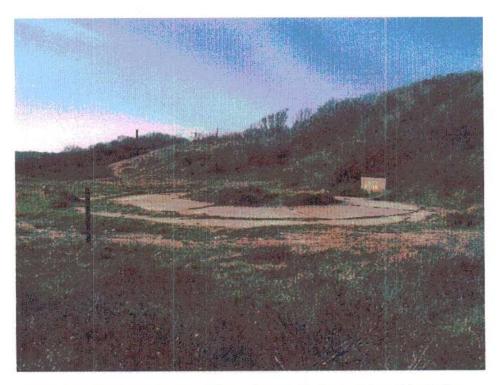
TABLE OF CONTENTS

- J-1. Area A: Looking Southwest to Northeast from the Camp Hero Shoreline (Area K) at the Fire Control Tower Behind the Montauk Lighthouse.
- J-2. Area B: Looking East to West Towards One of Two 6-inch Gun Emplacement Areas on the Southeast Side of Battery 216.
- J-3. Area B: Looking Southeast to Northwest at the Southeast Side 6-inch Gun Emplacement Area of Battery 216. The Earthen Cover of the Battery is visible in the backround.
- J-4. Area B: Looking Northeast to Southwest from the Top of Battery 216 towards the Remains of the Battery's Fire Control Station.
- J-5. Area B: Looking North to South at the Southern Side of Battery 216.
- J-6. Area B: Looking Northeast to Southwest Towards the Second of Two 6-inch Gun Emplacement Areas on the Southwest Side of Battery 216.
- J-7. Area C: Looking South to North from the Shoreline at the Former Location of AAA Firing Point #2. Communication Cables that Once Led to the Firing Point are Visible Extending From the Eroding Bluff.
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- J-9. Area D: Looking East to West from Within the Former AAA Battalion Bivouac Area.
- J-10. Area E: Looking Southeast to Northwest at the Former 16-Inch Gun Position of the Southeastern End of Battery 113 (Dunn).
- J-11. Area E: Looking South to North at the Former 16-Inch Gun Position of the Southwestern End of Battery 113 (Dunn).
- J-12. Area E: Looking North to South at a Cemented Entrance of the Northwest End of Battery 113 (Dunn).

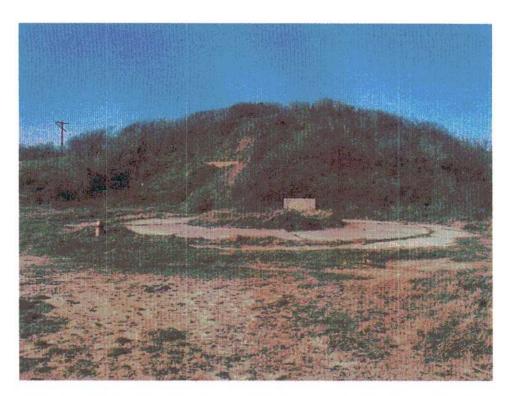
- J-13. Area F: Looking Southeast to Northwest at the Former 16-Inch Gun Position of the Southwestern End of Battery 112.
- J-14. Area F: Looking South to North at the Former 16-Inch Gun Position of the Southeastern End of Battery 112.
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- J-16. Area G: Looking East to West at the Suspected Firing Berm of the Makeshift Small Arms Firing Range.
- J-17. Area H: Looking South to North from the Shoreline (Area K) at the Southern Boundary Bluff of the Ordnance Destruction Range. OE Items are Weathering Out of this Bluff.
- J-18. Area H: Looking South to North from the Shoreline (Area K) at Projectile Fragments, Functioned Point Detonating Projectile Fuzes and Fuze Debris, a .50 Caliber Cartridge Casing, and a .50 Caliber Bullet Weathering from the Bluff.
- J-19. Area H: A 17 to 23-Pound Fragmentation Bomb and Multiple Projectile Fragments Found in the Upland Area of the Ordnance Destruction Range.
- J-20. Area H: A Projectile Base Found in the Upland Area of the Ordnance Destruction Range.
- J-21. Area H: A Predominately Buried 3.5-inch Rocket (Devoid of the Fin Assembly) Found in the Upland Area of the Ordnance Destruction Range.
- J-22. Area H: Looking East to West at a Portion of the Upland Area of the Ordnance Destruction Range.
- J-23. Area I: Looking Southwest to Northeast Towards the Montauk Lighthouse from a Circular Target Plane Launching Area Road. The Launching Area was in the Center of the Circular Roadway.
- J-24. Area M: Looking West to East Towards the Entrance of the Former Air Force Housing Area, Now a Low Cost Housing Development.
- J-25. Area M: Looking East to West at an Army Coastal Defense Era Cottage Type Fire Control Station. The Air Force AN/FPS-35 Radar Tower is in the Backround.
- J-26. Area M: Looking East to West at AN/FPS-35 Radar Tower.



J-1. Area A: Looking Southwest to Northeast from the Camp Hero Shoreline (Area K) at the Fire Control Tower Behind the Montauk Point Lighthouse.



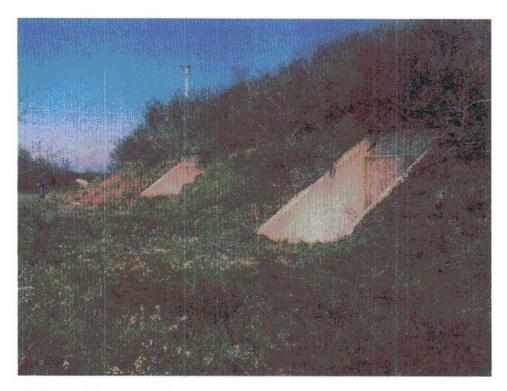
J-2. Area B: Looking East to West Towards One of Two 6-Inch Gun Emplacement Areas on the Southeast Side of Battery 216.



J-3. Area B: Looking Southeast to Northwest at the Southeast Side 6-Inch Gun Emplacement Area of Battery 216. The Earthen Cover of the Battery is Visible in the Backround.



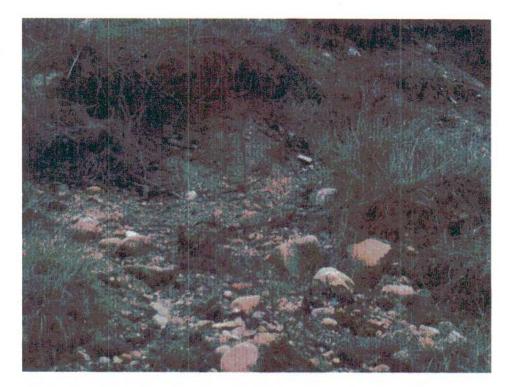
J-4. Area B: Looking Northeast to Southwest from the Top of Battery 216 towards the Remains of the Battery's Fire Control Station.



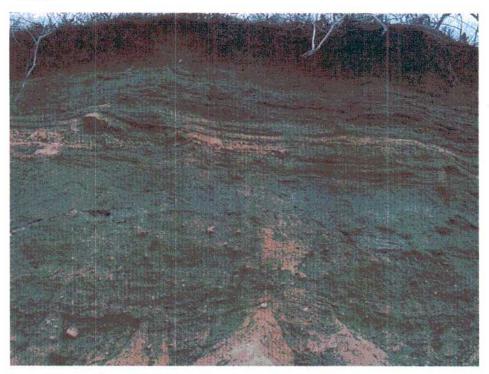
J-5. Area B: Looking North to South at Southern Side of Battery 216.



J-6. Area B: Looking Northeast to Southwest towards the Second of Two 6-Inch Gun Emplacement Areas on the Southwest Side of Battery 216.



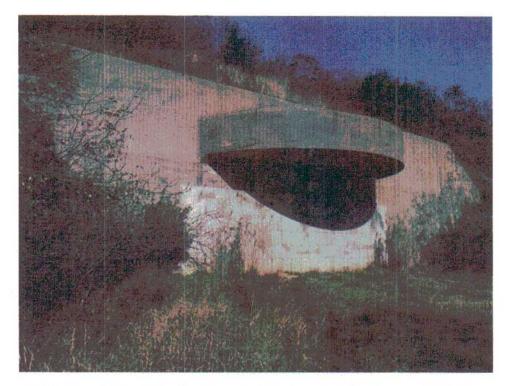
J-7. Area C: Looking South to North from Shoreline (Area K) at Former Location of AAA Firing Point #2. Communication Cables that Once Led to the Firing Point are Visible Extending from the Eroding Bluff.



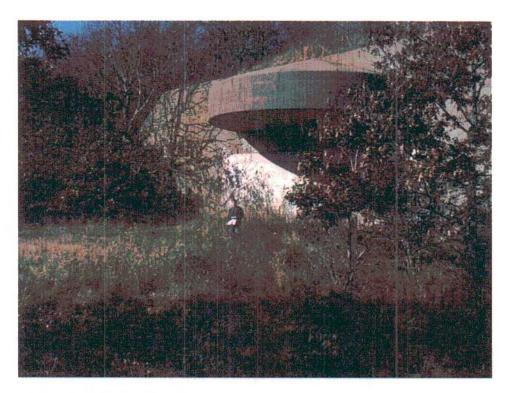
J-8. Area C: Looking South to North from Shoreline (Area K) at Former Location of AAA Firing Point #3. Communication Cables that Once Led to the Firing Point are Visible Extending from the Eroding Bluff.



J-9. Area D: Looking East to West from Within the AAA Battalion Bivouac Area

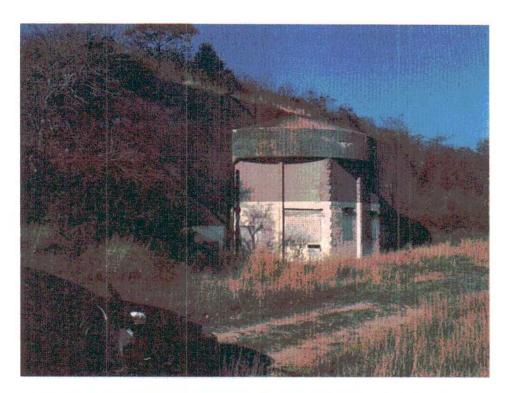


J-10. Area E: Looking Southeast to Northwest at the Former 16-Inch Gun Position of the Southwestern End of Battery 113 (Dunn).

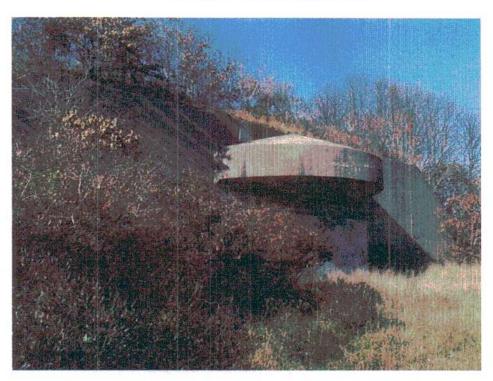


J-11. Area E: Looking South to North at the Former 16-Inch Gun Position of the Southwestern End of Battery 113 (Dunn).

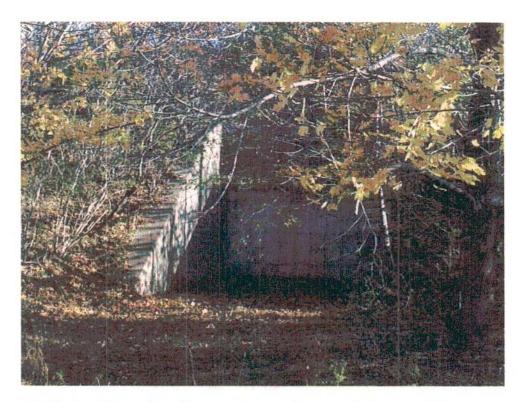




J-13. Area F: Looking Southeast to Northwest at the Former 16-Inch Gun Position of the Southwestern End of Battery 112.



J-14. Area F: Looking South to North at the Former 16-Inch Gun Position of the Southeastern End of Battery 112.



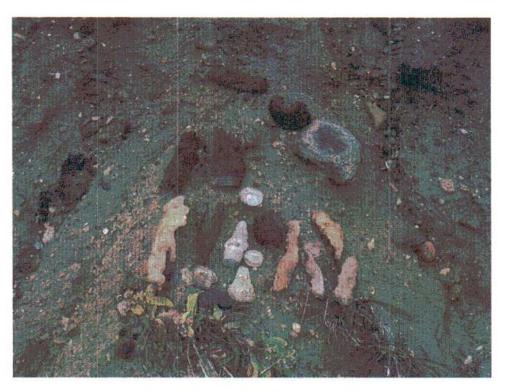
J-15. Area F: Looking West to East at a Concreted Entrance of the Northeastern End of Battery 112.



J-16. Area G: Looking North to South at the Suspected Firing Berm of the Makeshift Small Arms Firing Range.



J-17. Area H: Looking South to North from the Shoreline (Area K) at the Southern Boundary Bluff of the Ordnance Destruction Range. OE Items are Weathering Out of this Bluff.



J-18. Area H: Looking South to North from the Shoreline (Area K) at Projectile Fragments, Functioned Point Detonating Fuzes and Fuze Debris, a .50 Caliber Cartridge Casing, and a .50 Caliber Bullet Found Weathering From the Bluff.



J-19. Area H: A 17 to 23-Pound Fragmentation Bomb Body and Multiple Projectile Fragments Found in the Upland Area of the Ordnance Destruction Range.



J-20. Area H: A Projectile Base Found in the Upland Area of the Ordnance Destruction Range.



J-21. Area H: A Predominately Buried 3.5-Inch Rocket (Devoid of the Fin Assembly) found in the Upland Area of the Ordnance Destruction Range.



J-22. Area H: Looking East to West at a portion of the Upland Area of the Ordnance Destruction Range.



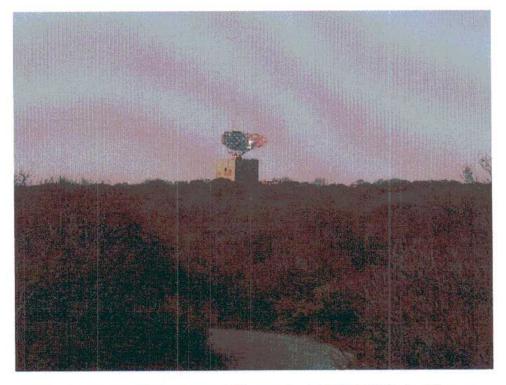
J-23. Area I: Looking Southwest to Northeast Towards the Montauk Point Lighthouse from a Circular Target Plane Launching Area Road. The Launching Area was in the Center of the Circular Roadway.



J-24. Area M: Looking West to East Towards the Entrance of the Former Air Force Housing Area, Now a Low Cost Housing Development.



J-25. Area M: Looking East to West at an Army Coastal Defense Era Cottage Type Fire Control Station. The Air Force AN/FPS-35 Radar Tower is in the Backround.



J-26. Area M: Looking East to West at the AN/FPS-35 Radar Tower.

ORDNANCE AND EXPLOSIVES
ARCHIVES SEARCH REPORT
FOR
FORMER CAMP HERO
MONTAUK, NEW YORK
PROJECT NUMBER C02NY002403

APPENDIX K

HISTORICAL PHOTOGRAPHS

APPENDIX K

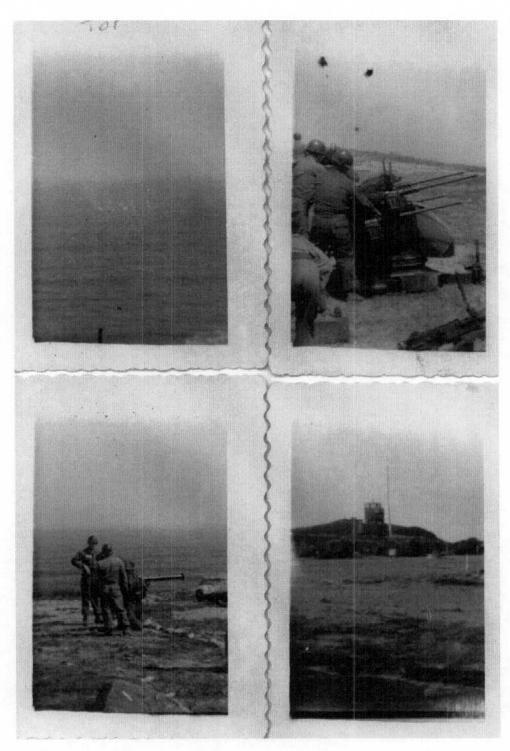
HISTORICAL PHOTOGRAPHS

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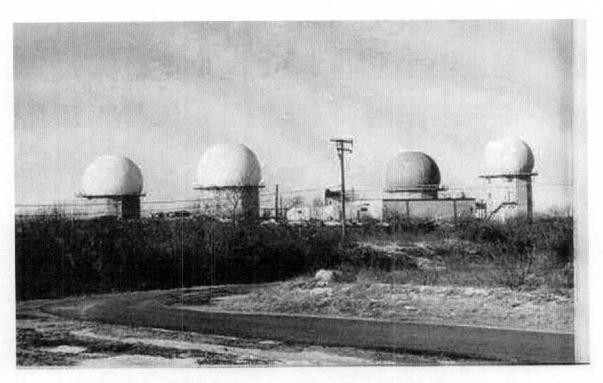
- K-1. 1949 Photograph of a One of Camp Hero's 16-Inch Guns Being Dismantled (B-125).
- K-2. 1950's Camp Hero Historical Photo Set Consisting of .50 Caliber Machine-Gun Firing, 3.5-inch Rocket Firing, and a Fire Control Station (B-126).
- K-3. 1958 Photograph of Two Height Finder and Two Surveillance Radar Assemblies at the Air Force Portion of Camp Hero (Montauk Air Force Station) (B-127).
- K-4. 1959 Photograph of the Air Force Portion of Camp Hero (Montauk Air Force Station). The construction of the AN/FPS-35 Radar Building is visible in the backround (B-128).
- K-5. 1998 Photograph of the Abandoned AN/FPS-35 Radar Building on the Former Air Force Portion of Camp Hero (Montauk Air Force Station) (B-129).
- K-6. 1999 Aerial Photograph of Former Camp Hero Lands.



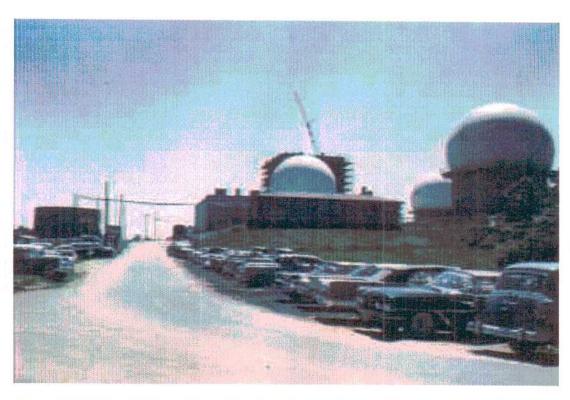
K-1. 1949 Photograph of One of Camp Hero's 16-Inch Guns Being Dismantled.



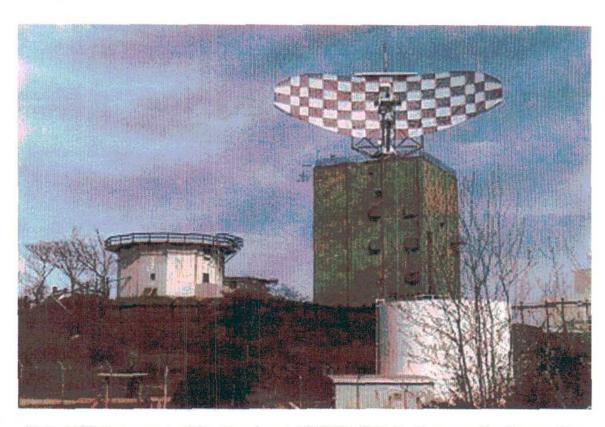
K-2. 1950's Camp Hero Historical Photo Set Consisting of .50 Caliber Machine-Gun Firing, 3.5-Inch Rocket Firing, and a Fire Control Station.



K-3. 1958 Photograph of Two Height Finder and Two Surveillance Radar Assemblies at the Air Force Portion of Camp Hero (Montauk Air Force Station).



K-4. 1959 Photograph of the Air Force Portion of Camp Hero (Montauk Air Force Station). The Construction of the AN/FPS-35 Radar Building is Visible in the Backround.



K-5. 1998 Photograph of the Abandoned AN/FPS-35 Radar Tower on the Former Air Force Portion of Camp Hero (Montauk Air Force Station).



K-6. 1998 Aerial Photograph of Camp Hero Lands.

ORDNANCE AND EXPLOSIVES
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APPENDIX L

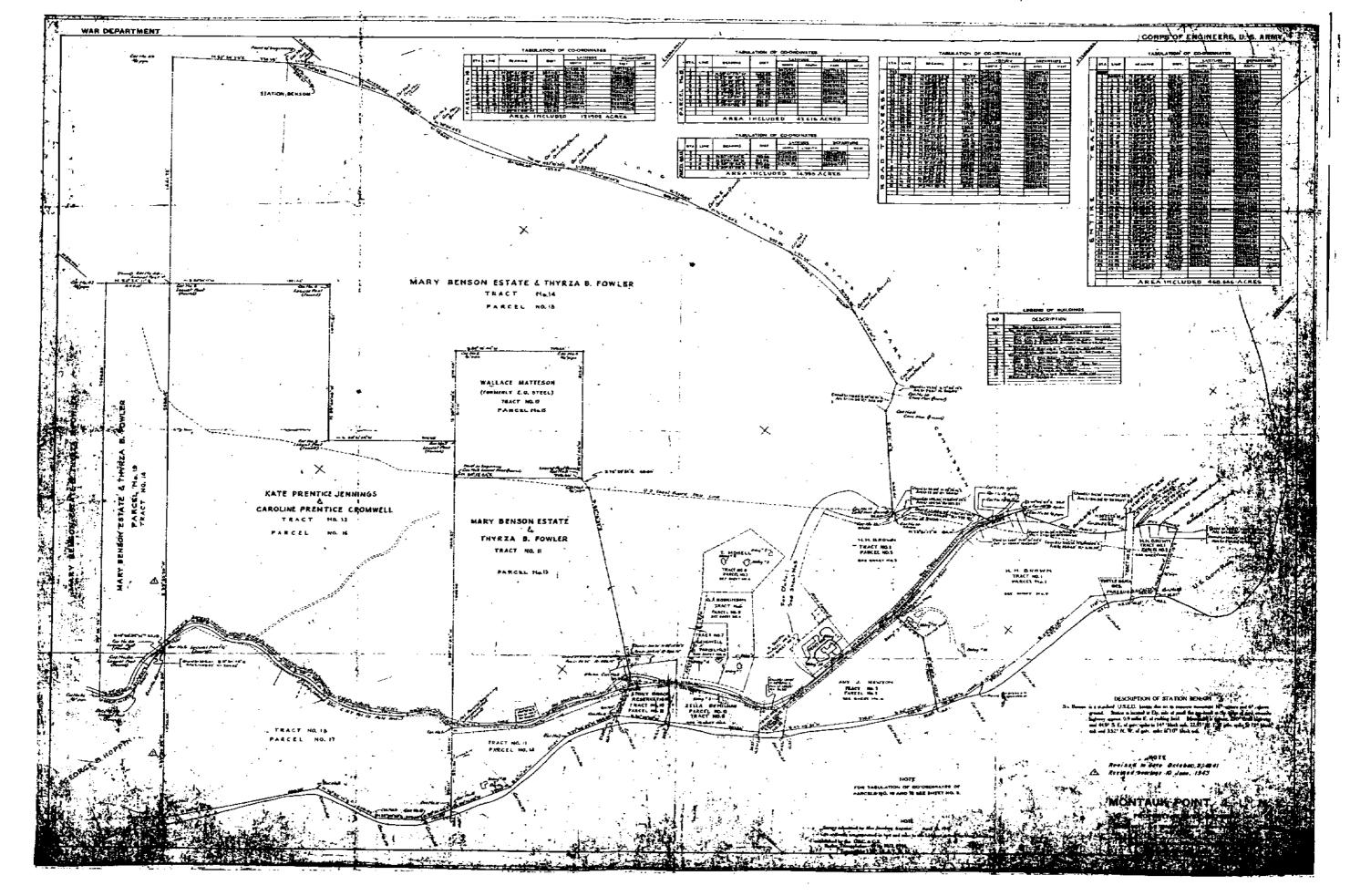
REFERENCE MAPS/DRAWINGS

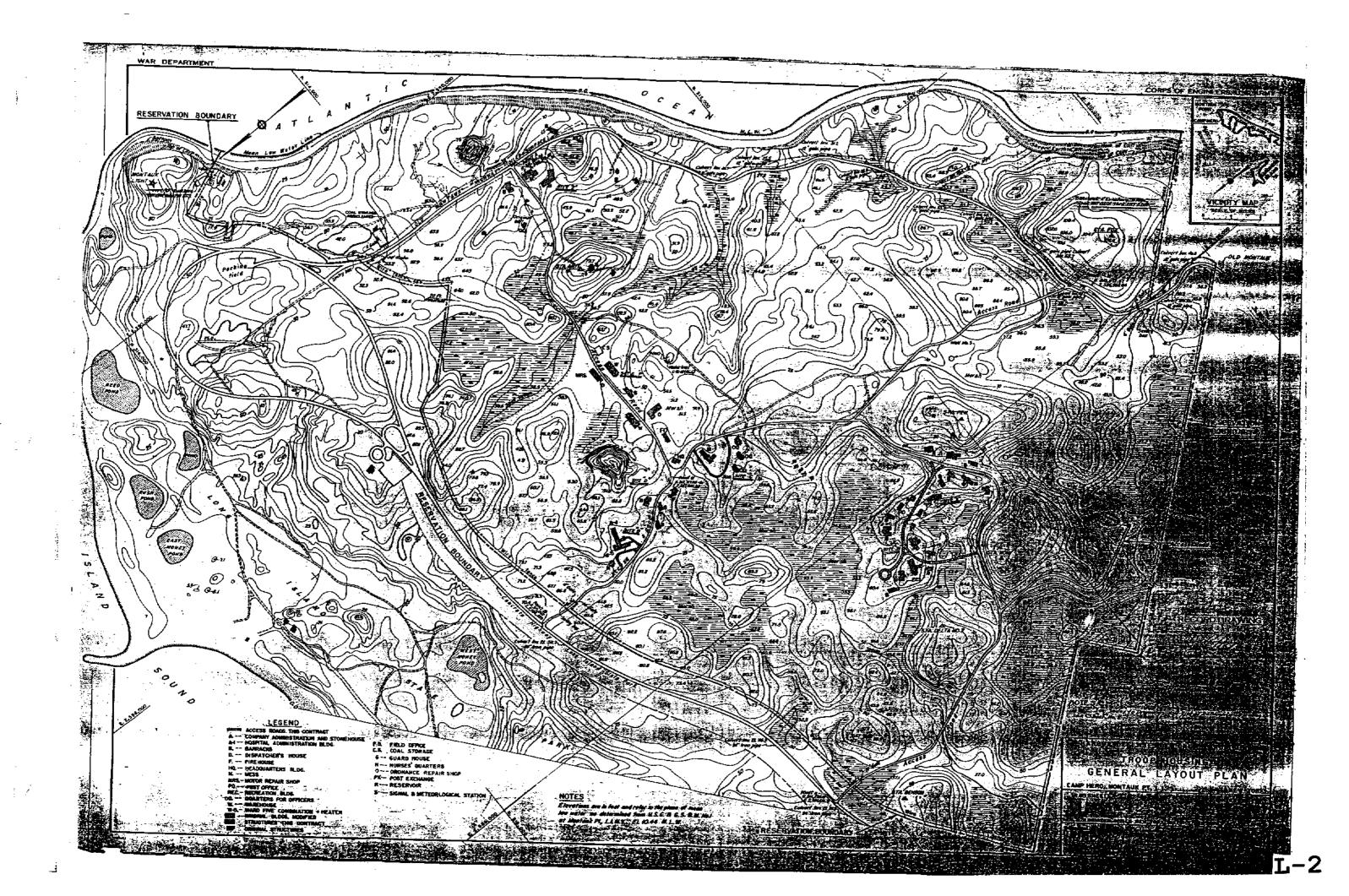
APPENDIX L

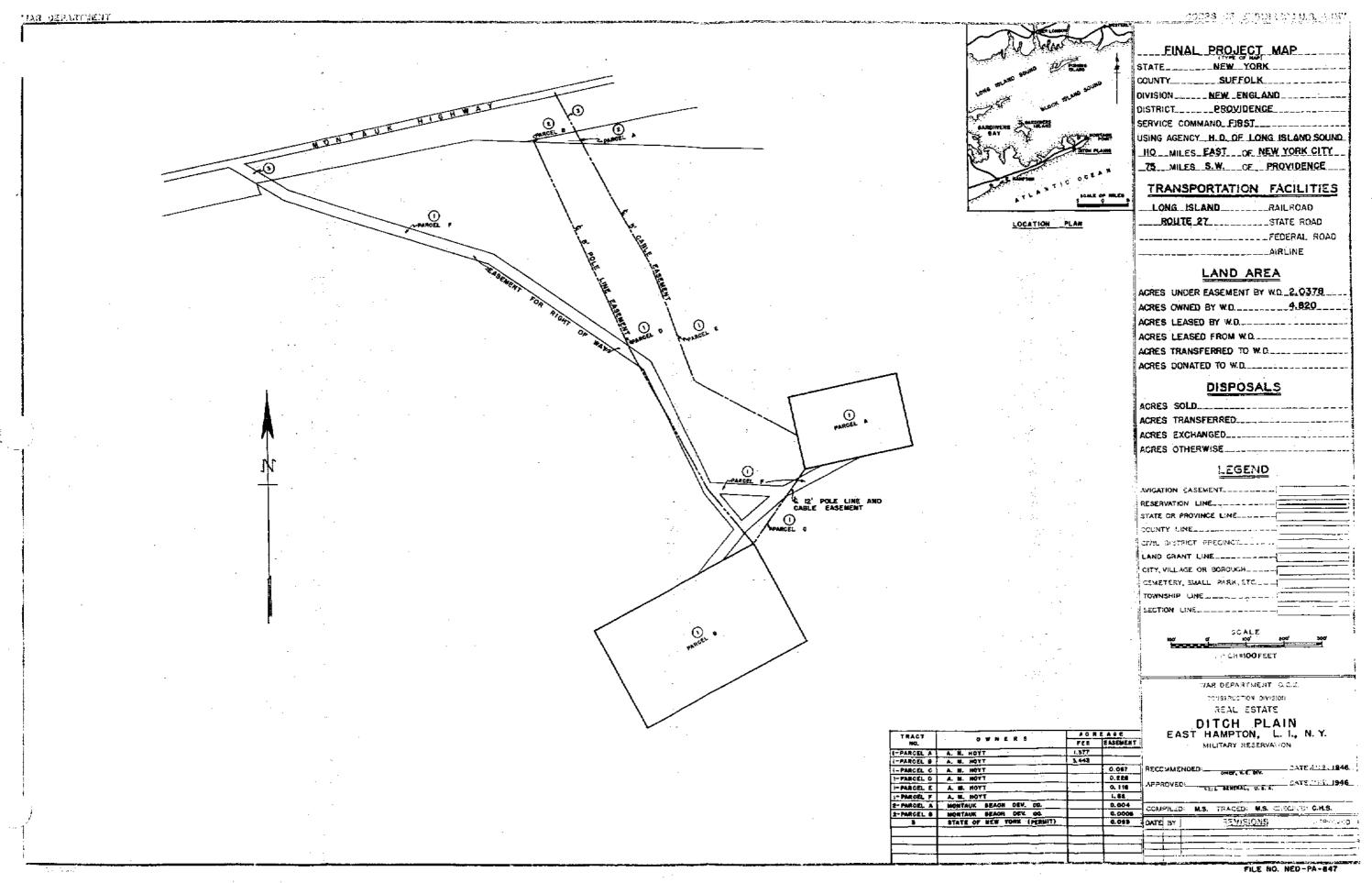
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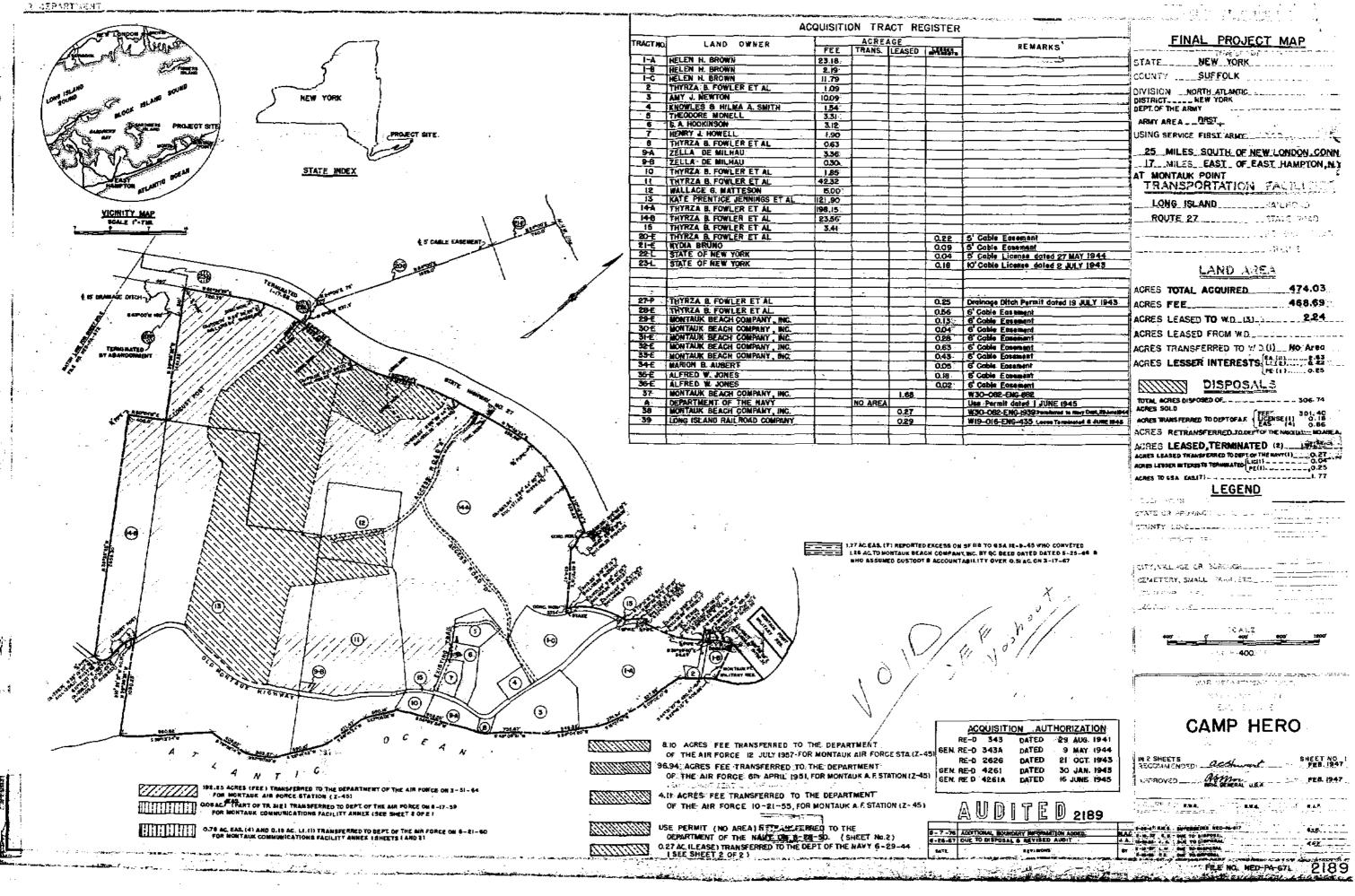
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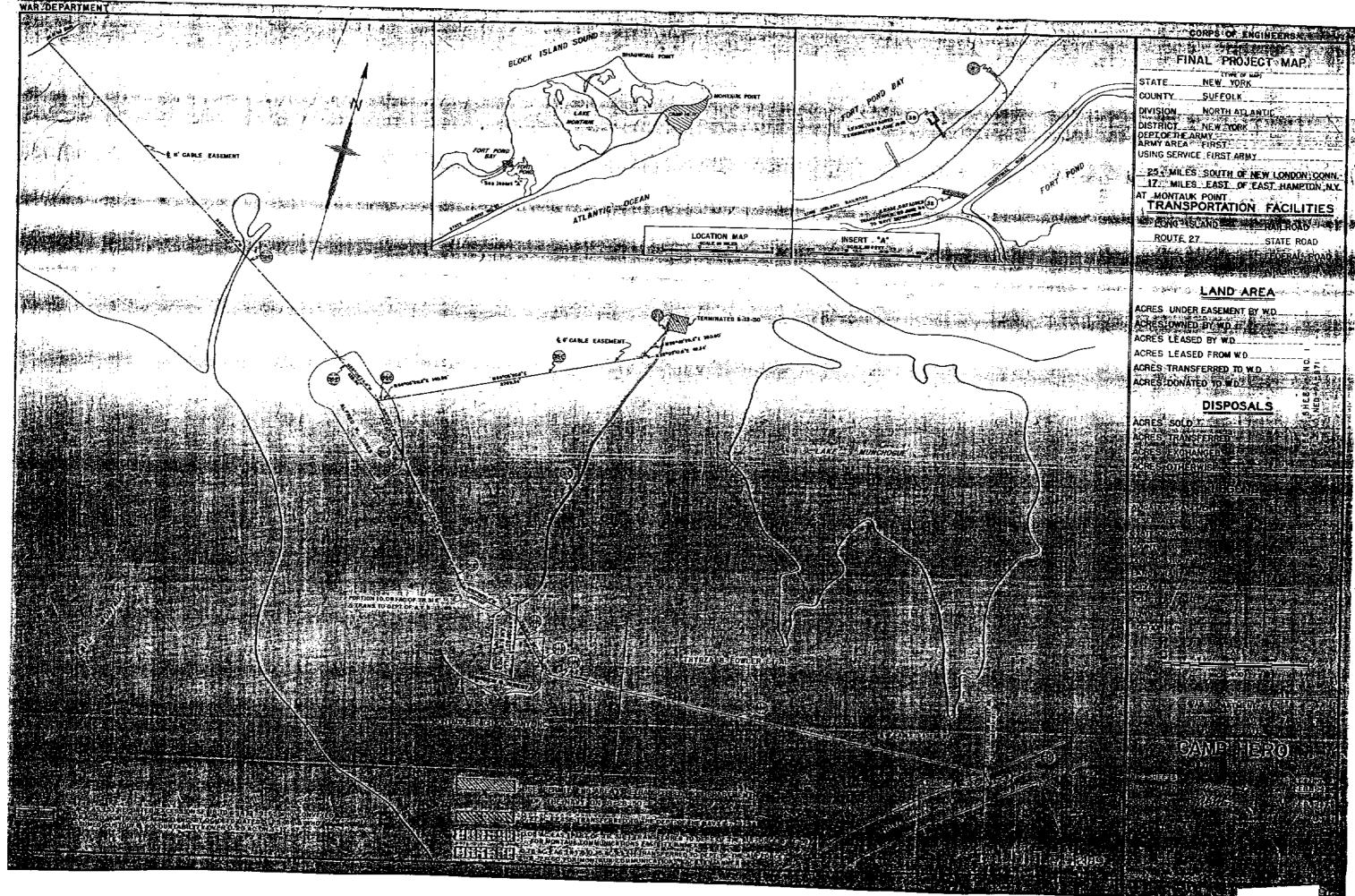
- L-1. U.S. Army Corps of Engineers Property Survey and General Map, 29 October 1941 (B-131).
- L-2. Camp Hero Troop Housing and General Layout Plan Map, 12 December $1942 \ (B-132)$.
- L-3. Office of the Chief of Engineers Final Project Map of the Ditch Plain Fire Control Station Property, August 1946 (B-133).
- L-4. Office of the Chief of Engineers Final Camp Hero Real Estate Project Map, Sheets 1 and 2, February 1947 (B-134 and B-135).
- L-5. Office of the Chief of Engineers Project Ownership Map for the Montauk Point Military Reservation, July 1947 (B-136).
- L-6. Office of the Chief of Engineers Final Project Map of the Hither Hills Fire Control Station Property, February 1948 (B-137).
- L-7. Office of the Chief of Engineers Final Project Map of the Amagansett Fire Control Station Property, February 1948 (B-138).
- L-8. Office of the Chief of Engineers Final Project Map of the East Hampton Fire Control Station Property, February 1948 (B-139).
- L-9. U.S. Army Corps of Final Real Estate Project Ownership Map for the Montauk Air Force Station (Z-45), Circa 1984 (B-140).
- L-10. Historical Field Map Reproduction of the Encampment of Colonel Theodore Roosevelt and the Rough Riders at Camp Wikoff, Montauk, Long Island, New York from 15 August 1898 through 15 September 1898 (B-141).

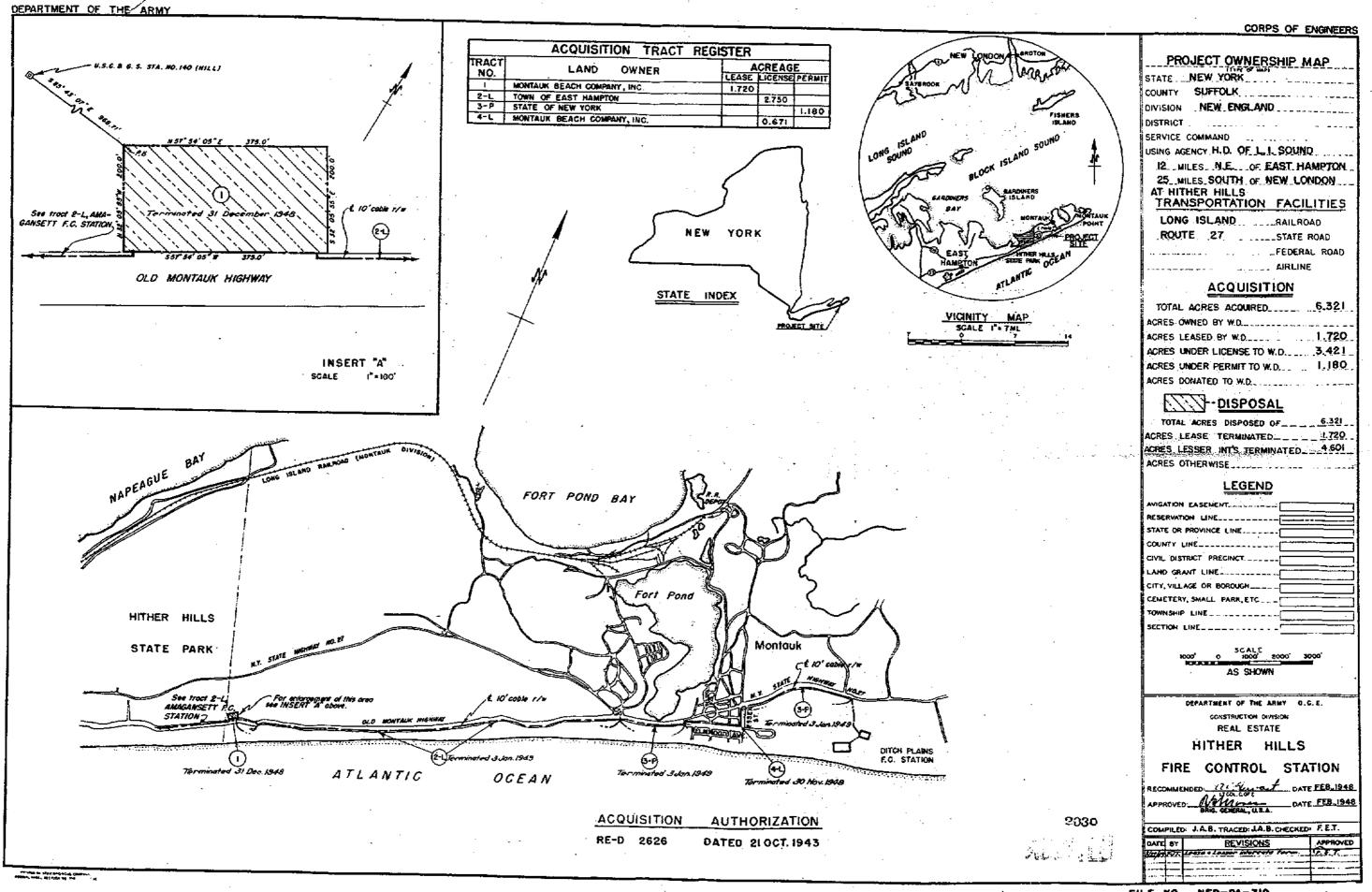




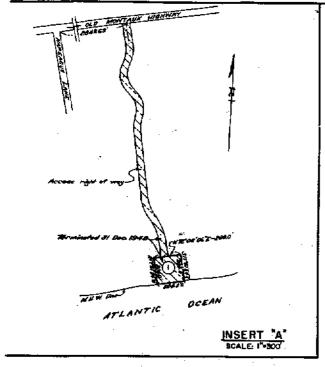






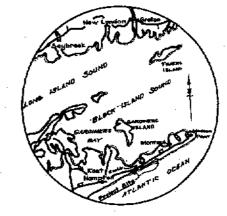


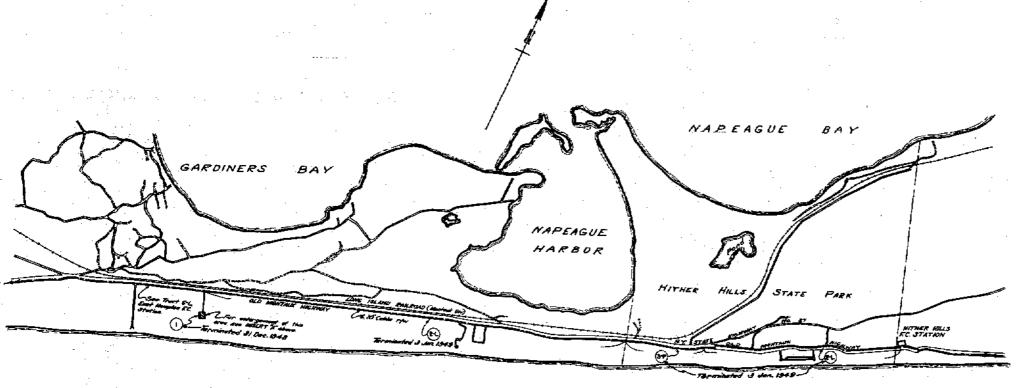
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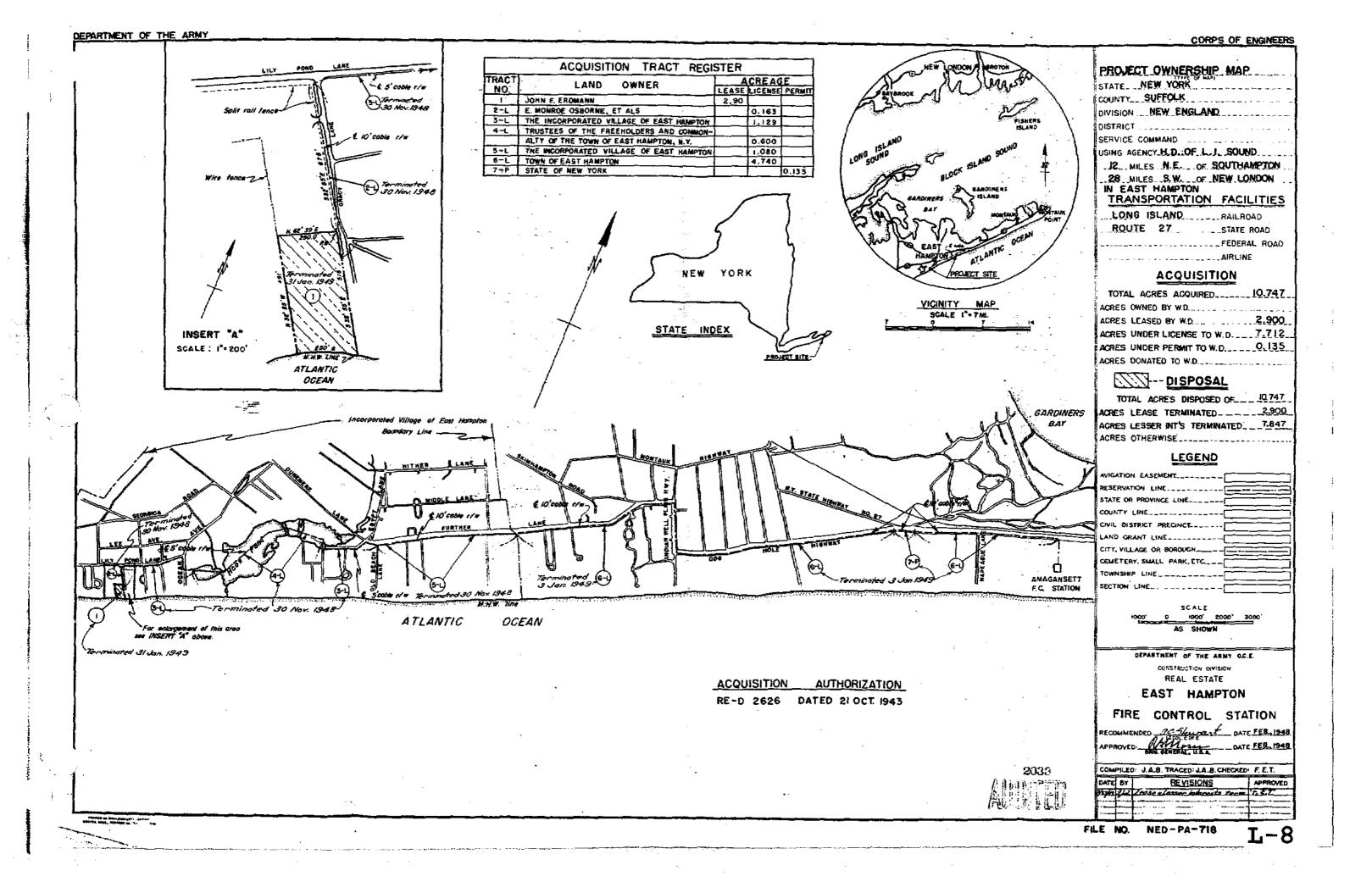
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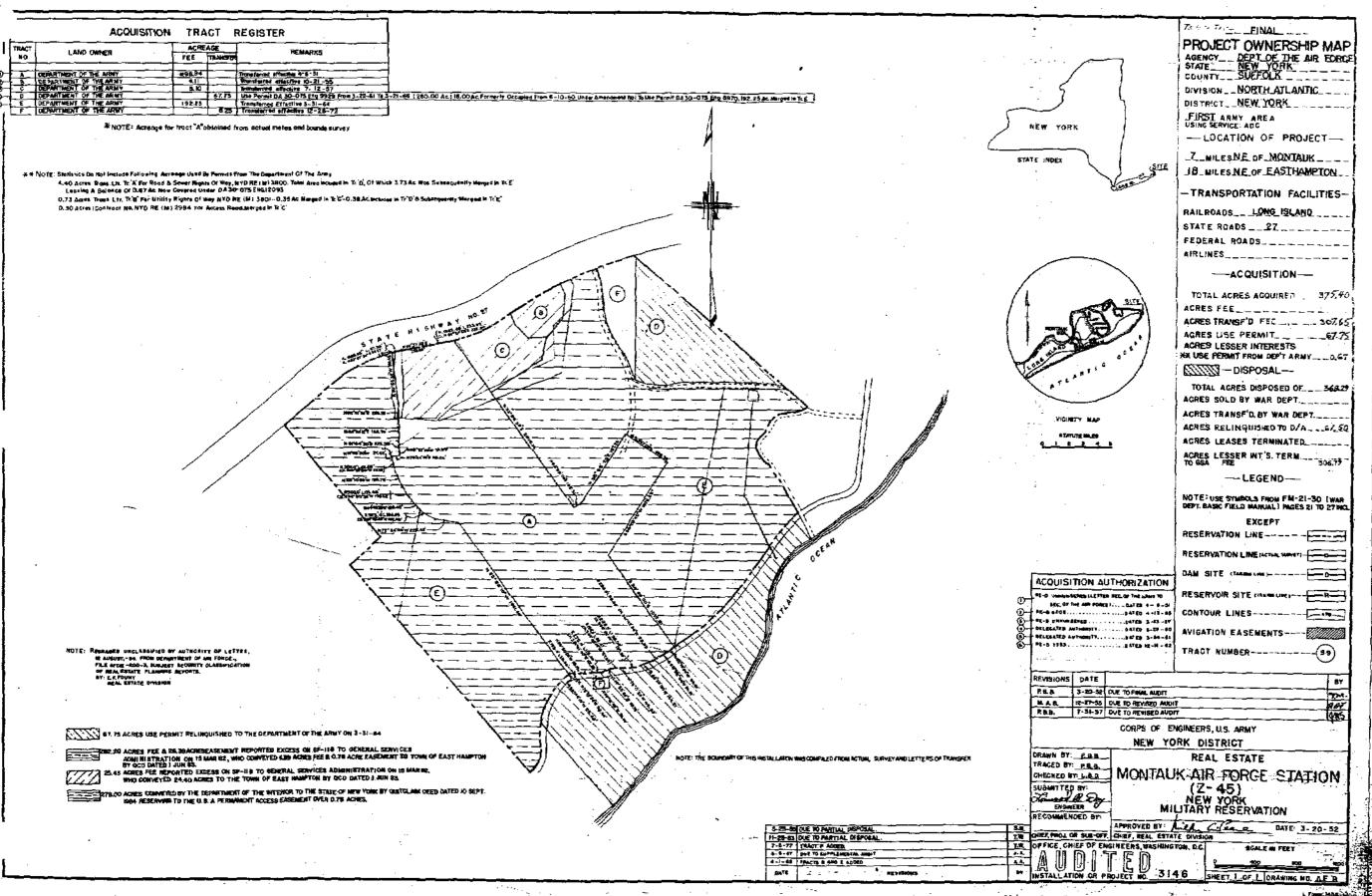
PROJECT OWNERSHIP MAP
STATENEW_YORK
COUNTYSUFFOLK
DIVISION NEW ENGLAND
DISTRICTSERVICE COMMAND
USING AGENCY H.D. OF LONG ISLAND SOUND
3 MILES N.E. OF EAST HAMPTON
_27_MILES_SOUTH_OF_NEW_LONDON, CONN. AT AMAGANSETT
TRANSPORTATION FACILITIES
LONG ISLAND RAILROAD
ROUTE 27STATE ROAD
FEDERAL ROAD
-
AIRLINE
<u>ACQUISITION</u>
TOTAL ACRES ACQUIRED
ACRES OWNED BY W.D.
ACRES LEASED BY W.D. 0.92
ACRES UNDER LICENSE TO W.D
ACRES UNDER PERMIT TO W.D. Q.BI
ACRES DONATED TO W.D
DISPOSALS
TOTAL ACRES DISPOSED OF 7.90
ACRES TRANSFERRED
ACRES LEASE TERMINATED
ACRES LESSER INT'S TERMINATED 6.98
<u>LEGEND</u>
AVIGATION EASEMENT
RESERVATION LINE
STATE OR PROVINCE LINE
COUNTY LINE
GIVIL DISTRICT PRECINOT.
LAND GRANT LINE
CENT VILLAGE OR BOROUGH
CEMETERY, SMALL PARK, ETG
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CONSTRUCTION DIVISION
REAL ESTATE
AMAGANSETT
FIRE CONTROL STATION
RECOMMENDED: alshauerf DATE FEB. 1948

REVISIONS

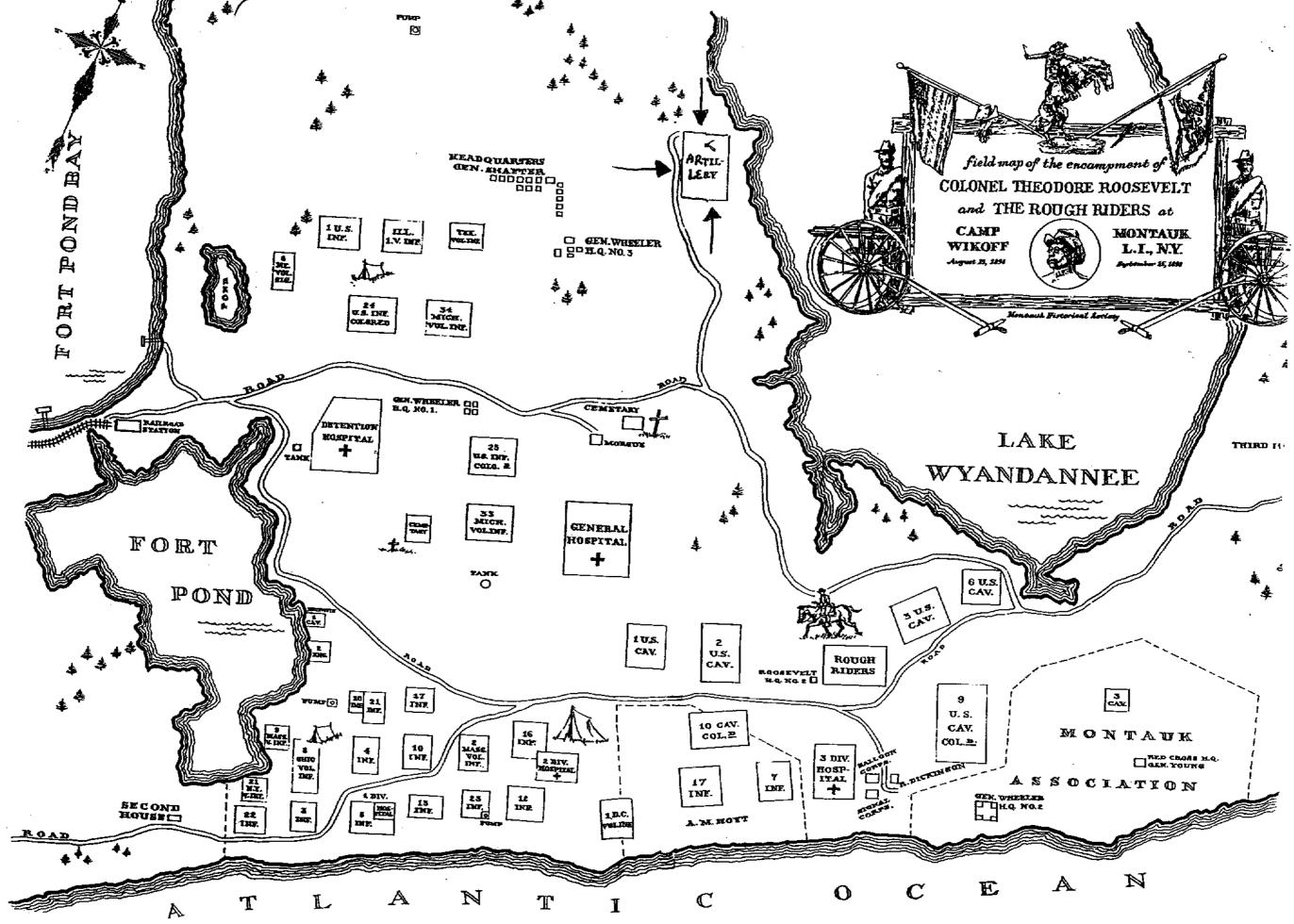
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APPENDIX M

ARCHIVES SEARCH REPORT CORRESPONDENCE

(Not Used)

APPENDIX N

PROJECT AREA BIBLIOGRAPHY

Project #	Document ID	Project Area(s)	OE Classification	Document Name	Document Date	Document Source	Description and Comments
C02NY002403	1	Н	Confirmed	Hazardous Materials Feasibility Study	00-Jun-98	COE, New York District	B-9, Projectile Fragments Found in Area.
	2	H	Confirmed	Interviews with State Park Personnel	Nov 99/Feb 00	Interview Sources	I-1, I-2, I-18; Projectiles, 3.5-Inch Rocket, .50 Cal Debris Found in Area.
	3	Н	Confirmed	Site Inspection	13-Nov-99	COE, Rock Island District	J-17 thru J-22; Projectile Fragments, .50 Cal Debris, and Fuze Debris Found
	_	 			10 1101 11		Weathering From Southern Area Bluff Into Area K. 17-23-Pound Fragmentation
	<u>-</u>				 		Bomb Body, Projectile Fragments and Bases, and 3.5-Inch Rocket Discovered
	 	· · · · · ·					in Upland Portion of Area.
	4	к	Confirmed	Newspaper Article	26-Jul-62	East Hampton Library	H-26; Skin Diver Discovered 90MM Projectile In Area Prompting Air Force EOD
	<u> </u>						Clearance. Over 200 Items Discovered to Include Canon Balls, Modern Artillery
	 	<u> </u>		· ·			Projectiles, Projectile Fuzes, Practice Rockets, an Intact Hand Grenade, 70
	1				 		Rounds of Assorted Ammunition, and Several Unidentified Items.
	5	К	Confirmed	Site Inspection	13-Noy-99	COE, Rock Island District	J-17 thru J-22; Projectile Fragments, 50 Cal Debris, and Fuze Debris Found.
	 	<u> </u>	Committee	Site mapes.ion	107.07		Weathering From Southern Bluff of Area H into Area.
	6	К	Confirmed	Interview of State Park Employee	9-Nov-99	Interview Source	I-2; Individual Found Large Projectile in Area Which Was Never Reported.
	7	1	Confirmed	Book Exerpt	Unknown Date	Suffolk County Historical Society	F-18; Camp Hero Guns Fired Several Times in Wartime Drills During WWII Era.
	<u> </u>		-			,	Concussion Rattled Windows Many Miles Away.
	8		Confirmed	Historical Report	14-Jan-58	East Hampton Library	E-15; Camp Hero Guns Boomed Periodically During Target Practice (WWII Era).
	9	1	Confirmed	Historical Report	1-31 Jan 51	AFHRA, Maxwell AFB	E-5; Preparations Were Under Way For AAA Battalion Firing.
	10		Confirmed	Historical Report	1-28 Feb 51	AFHRA, Maxwell AFB	E-6; 90mm and .50 Caliber Firing by AAA Battalions Occurred.
	11		Confirmed	Historical Report	1-31 Mar 51	AFHRA, Maxwell AFB	E-7; 90mm AAA Batteries Arrived But Firing Had Not Occurred.
	12		Confirmed	Historical Report	1-30 Apr 51	AFHRA, Maxwell AFB	E-8; 90mm AAA Firing Occurred.
	13	 	Confirmed	Historical Report	1-31 May 51	AFHRA, Maxwell AFB	E-9; 90mm and 120mm AAA Firing Occurred.
	14	i i	Confirmed	Historical Report	1-30 Jun 51	AFHRA, Maxwell AFB	E-10; 120mm AAA Firing Occured.
	15	<u> </u>	Confirmed	Historical Report	1-30 Sep 51	AFHRA, Maxwell AFB	E-11; Unspecifed Type AAA Firing Occurred.
	16	L	Confirmed	Historical Report	1-31 Oct 51	AFHRA, Maxwell AFB	E-12; Unspecified Type AAA Firing Occurred.
	17	ī	Confirmed	Historical Report	1-30 Nov 51	AFHRA, Maxwell AFB	E-13; Unspecified Type AAA Firing Occurred.
	18		Confirmed	Historical Report	1-31 Dec 51	AFHRA, Maxwell AFB	E-14; Unspecified Type AAA Firing Occurred at Towed Targets and RCAT.
	19		Confirmed	Newspaper Article	8-Feb-51	East Hampton Library	H-10; 120mm AAA Fire to Begin at Camp Hero, 30,000 Yards to Sea Restricted.
	20	ī	Confirmed	Newspaper Article	1-Mar-51	East Hampton Library	H-11; Residents Protest April AAA Gun Fire Due to Large Ocean Restricted Zone.
	21	Ĺ	Confirmed	Newspaper Article	1-Mar-51	East Hampton Library	H-12; Army Wants 16.5 Mile Offshore Danger Zone Established For AAA Firing.
	22	L	Confirmed	Newspaper Article	3-Apr-51	East Hampton Library	H-13; Army Postpones 90mm AAA Firing Due to Low Visibility, 1,000 Soldiers Idle.
	23	<u> </u>	Confirmed	Newspaper Article	3-Jan-52	East Hampton Library	H-14; 90mm AAA Firing Resumes Off Montauk Point, Danger Zone Established.
	24	L	Confirmed	Newspaper Article	31-Jan-52	East Hampton Library	H-15; Notice of AAA Firing in Atlantic Ocean Off Montauk, 4-29 February 1952.
	25	L	Confirmed	Newspaper Article	18-Sep-52	East Hampton Library	H-16, Notice of AAA Firing in Atlantic Ocean Off Montauk, 1-31 October 1952
	26	L	Confirmed	Newspaper Article	20-Nov-52	East Hampton Library	H-17; Notice of AAA Firing in Atlantic Ocean Off Montauk, 24 Nov-19 Dec 1952.
	27	L.	Confirmed	Newspaper Article	8-Dec-55	East Hampton Library	H-19; 90mm Accident at Camp Hero Kills Soldier.
	28	L	Confirmed	Newspaper Article	23-May-57	East Hampton Library	H-21; Armed Forces Day Demonstration of 90mm Gun and Quad .50 Machine-Gun.
	29	L	Confirmed	Historical Society Article	Oct-Dec 57	Organizational Files	H-22; AAA Battalion Gun Training at Camp Hero Throughout the Summer of 1953.
	30	L	Confirmed	Interview of Private Citizen	11-Nov-99	Interview Source	I-2; 90mm Gun Firing Occurred from Camp Hero December 1955 through November
					1	<u> </u>	1957, 90mm Gun Accident Occurred in December 1955 Killing Soldier.
•••	31	L	Confirmed	Interview of Private Citizen	11-Nov-99	Interview Source	I-4; Heard Firing Occurring From Montauk in Early 1940's. AAA Units Convoyed into
	1				 		Camp Hero from Late 1940's to 1950's Towing 90mm Guns.
	32	L	Confirmed	Interview of Private Citizen	11-Nov-99	Interview Source	I-5; Witnessed Small and Large Projectile Firing Into Atlantic in 1950's.
	33	L	Confirmed	Interview of Private Citizens	11-Nov-99	Interview Sources	I-7, I-8, I-13; AAA Units Convoyed to Camp Hero from Late 40's to 50's Towing Guns.
	34	L	Confirmed	Interview of Private Citizens	11/12-Nov-99	Interview Sources	I-10, I-11; Artillery Fire Into Atlantic From Camp Hero from Early to Latter 1950's.
	35	<u> </u>	Confirmed	Interview of Private Citizen	20-Jan-00	Interview Source	I-18; Camp Hero Guns Required to Fire for Practice at Regular Intervals During WWII.
	36	ī	Confirmed	Interview of Private Citizen	15-Feb-00	Interview Source	I-20; Battalion 90mm, Quad .50, and 3.5 Rocket Fire From Southern Bluffs in 1957.
	37	ī	Confirmed	Historical Photographs	15-Feb-00	Interview Source 1-20	K-1; Photographs of Quad .50 and 3.5 Rocket Fire From Southern Bluffs in 1957.

APPENDIX O

REPORT DISTRIBUTION LIST

APPENDIX O

REPORT DISTRIBUTION LIST

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Commander, U.S Army Engineer District, New York and Supervisor of New York Harbor, ATTN: CENAN-PP-E (Ashcraft), 190 State Highway 18 Suite 305, East Brunswick, NJ 08816	2	_	-	
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REPORT PLATES

