

PROJECT FACT SHEET  
FORMERLY USED DEFENSE SITES  
September 1995

1. **SITE NAME:** Montauk Torpedo Testing Range

**SITE NUMBER:** C02NY076600

**LOCATION:**

**CITY:** Montauk  
**COUNTY:** Suffolk  
**STATE:** Long Island, New York

**PROJECT NUMBER:** C02NY076602

**CATEGORY:** OE

2. **POC:**

**GEO DIST POC:**  
**NAME:** Guy Ashcraft  
**OFFICE:** CENAN-PP-E  
**PHONE:** (908) 435-0079

**TECHNICAL MANAGER:**  
**NAME:**  
**OFFICE:** CEHND-OE-PM  
**PHONE:**

**GEO DIV POC:**  
**NAME:**  
**OFFICE:** CENAN  
**PHONE:**

**HEADQUARTERS POC:**  
**NAME:**  
**OFFICE:** CEMP-RF  
**PHONE:**

3. **SITE DESCRIPTION**

(1) The former Montauk Torpedo Testing Range, Area 'B', was located on the southern shore of Fort Pond Bay, Long Island, New York which is approximately 135 miles east from New York City and about six miles west of Montauk Point, the southeastern end of Long Island. All five areas that made up the Montauk Command totaled approximately 165 acres, in which Area 'B', the subject of this project, was approximately 45 acres of the total. The area is bordered by a flat to a slowly inclining sand beach with the inclination occurring from north to northwest, with small sand hills to the northeast and southwest. The remaining area from southeast to southwest is flat with a gradual rise in terrain towards the southwest.

(2) Today, Area 'B' has been developed into condominiums that are within 150 to 200 feet from the beach area. Some of the residents are seasonal with few staying through the winter months. Another area of the former site located on the southern side is occupied by residential

apartments. Other areas surrounding the former site are dotted with small houses/cabins that are occupied seasonal or year-around. The two remaining buildings that were left after the demolition was complete in 1984 are: building B-10 (former torpedo store house) now the Montauk Shell Fish Hatchery and B-15 (former contractor's shop) now residential apartments. ←

#### 4. SITE HISTORY

(1) The construction of the Montauk Torpedo Testing Range was started in January 1943 and completed in March 1943. These areas that the fishing village occupied were acquired from the Long Island Railroad and the Montauk Beach Company through condemnation, fee simple and lease. After the construction was complete, Area 'B' was comprised of approximately 45 acres.

(2) The sole mission of the torpedo testing range was to test commercially manufactured torpedo delivery vehicles. The two torpedoes tested were the Mark 13 (air launched) and the Mark 15 (surface launched). These torpedoes had two counter rotating propellers driven by steam propulsion, with the warhead section filled with sand for ballast. After the torpedoes spent their ethyl alcohol fuel, they would bob in the water for easy pick-up. The torpedoes that passed the ballistic test were refitted with internal components and sent off to an ammunition plant so the warhead could be up loaded with high explosives. The torpedoes that failed were scraped or reworked and tested again.

(3) Months before the end of World War II the Navy issued a notice that the testing range would be disestablished on 1 March 1945. Along with the disestablishment of the test range, came a mission change and a new name, U. S. Naval Magazine. This Naval Magazine stored inert material for the Navy and Army. After several complex real estate problems during the Navy's downsizing of the torpedo testing range, the final site amounted to approximately 35 acres. With this, the Navy on 15 November 1949 sold this acreage to Goble Aircraft Specialties, Incorporated, thus ending the Navy's presence at the testing range.

(4) Fort Pond Bay, 438 acres, boundary area in Block Island Sound 20,100 acres and Sewage Disposal area 2.18 acres should be included in the FDE, because it appears that the Bay and Block Island Sound was used in the test firing of the Mark 15 torpedoes. Plus, Area B acreage should be included because it has been confirmed through historical

documentation that it was used by the Navy. These areas are represented in this report as Areas B, D and E.

## 5. PROJECT DESCRIPTION:

### Area A:

Size, Acres:	40.0
Former Usage:	Storage/Test Range Area
Present Usage:	Residential, Condomimuns
Probable End Usage:	Same
Ordnance Presence:	None
Risk Assessment:	5

### Area B:

Size, Acres:	2.18
Former Usage:	Navy's septic/leeching field
Present Usage:	undeveloped
Probable End Usage:	Same
Ordnance Presence:	None
Risk Assessment:	5

### Area C:

Size, Acres:	2.82
Former Usage:	Testing Range Beach Area
Present Usage:	Beach area for condomimuns
Probable End Usage:	Same
Ordnance Presence:	Confirmed (small arms)
Risk Assessment:	3

### Area D:

Size, Acres:	438.0
Former Usage:	Test range (Fort Pond Bay)
Present Usage:	Recreational scuba diving, Shell Fish Hatchery, limited commercial fishing.
Probable End Usage:	Same
Ordnance Presence:	Confirmed (small arms)
Risk Assessment:	3

### Area E:

Size, Acres:	20,100.0
Former Usage:	Test range (Block Is. Sound)
Present Usage:	Commercial Boat Traffic/ Commercial Fishing
Probable End Usage:	Same
Ordnance Presence:	Confirmed (dummy torpedoes)
Risk Assessment:	3

6 CURRENT STRATEGY:

Area A: NOFA  
Area B: NOFA  
Area C: Recommend an EE/CA  
Area D: Adjust INPR to include acreage and proceed with EE/CA  
Area E: Adjust INPR to include acreage, NOFA

7. ISSUES AND CONCERNS:

Area A: NONE

Area B: NONE

Area C: EE/CA: **Terrain:** flat, with a slow inclining sandy beach; **Political atmosphere:** sensitive; **Weather:** hurricane season August-October; **Endangered Species:** various plant/marine animal species, contact N.Y. DEC for an up-to-date listing; **Sweeps/Disposal:** Residential Housing within 150 to 200 feet.

Area D: EE/CA: Same as Area C, except the terrain, which is an underwater site is sandy to muddy bottom moving away from the shoreline and sweeps/disposal, housing along shoreline.

Area E: NONE

8. CURRENT STATUS:

PA: 95% Adjust FDE to reflect the 45 acre site, include Sewage Disposal (Area B), Fort Pond Bay (Area D), Block Island Sound boundary (Area E) and Villas of Montauk Associates No. 13 on plate 7, which the acre is already included in Area A acreage.

ASR: 100%

**Interim Remedial Action:**

Area A: Not necessary  
Area B: Not necessary  
Area C: Not necessary  
Area D: Not necessary  
Area E: Not necessary

**ESI:**

Area A: Not necessary  
Area B: Not necessary  
Area C: Not necessary  
Area D: Not necessary  
Area E: Not necessary

**EE/CA:**

Area A: Not necessary  
Area B: Not necessary  
Area C: Proposed as above  
Area D: Proposed as above  
Area E: Not necessary

**9. SCHEDULED SUMMARY:**

<u>Phase</u>	<u>Orig. Start</u>	<u>Sch. Start</u>	<u>Actual Start</u>	<u>Orig. Comp.</u>	<u>Sch. Comp.</u>	<u>Actual Comp.</u>
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**10. FUNDING/BUDGET SUMMARY:**

<u>Year</u>	<u>Phase</u>	<u>EXEC FOA</u>	<u>In House Required</u>	<u>Contract Required</u>	<u>Funds Obligated</u>
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DEFENSE ENVIRONMENTAL RESTORATION PROGRAM  
for  
FORMERLY USED DEFENSE SITES

CONCLUSIONS AND RECOMMENDATIONS

ORDNANCE AND EXPLOSIVES  
ARCHIVES SEARCH REPORT  
FOR THE  
FORMER MONTAUK TORPEDO TESTING RANGE (AREA 'B')  
SUFFOLK COUNTY  
MONTAUK LONG ISLAND, NEW YORK  
PROJECT NUMBER C02NY076602

September 1995

Prepared for  
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Huntsville, Alabama 35807-4301

Prepared by  
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ORDNANCE AND EXPLOSIVES  
ARCHIVES SEARCH REPORT  
FOR THE  
FORMER MONTAUK TORPEDO TESTING RANGE (AREA 'B')  
SUFFOLK COUNTY  
MONTAUK LONG ISLAND, NEW YORK  
PROJECT NUMBER C02NY076602

**CONCLUSIONS AND RECOMMENDATIONS**

The following conclusions and recommendations are provided by the Archives Search Report Team. These recommendations may not be the actions taken to remediate this site.

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ORDNANCE AND EXPLOSIVES  
ARCHIVES SEARCH REPORT  
FOR  
FORMER MONTAUK TORPEDO TESTING RANGE (AREA 'B')  
SUFFOLK COUNTY  
MONTAUK LONG ISLAND, NEW YORK  
PROJECT NUMBER C02NY076602

1. INTRODUCTION

a. **Subject and Purpose**

(1) This report presents the conclusions and recommendations of an historical records search and site inspection for ordnance and explosives (OE) presence located at former Montauk Torpedo Testing Range (Area 'B'), Montauk Long Island, New York, (see plates 1 and 3).

(2) The investigation focused on one of the five areas that was associated with the torpedo testing range (see plate 1). The 45 acres of land known by the Navy designate, **Area 'B'** or the **Industrial Area**, served as the center point. This area served as a torpedo testing facility for the Navy, to test commercially manufactured Mark 13 and Mark 15 torpedoes. Testing the ballistics of the torpedoes was the sole purpose of this base. The operational time frame of the torpedo testing was approximately from March 1943 to March 1945.

(3) The purpose of this investigation was to characterize the site for actual and/or potential OE contamination, to include chemical warfare material (CWM), utilizing available historical records, interviews, and on-site visual inspection results.

b. **Scope**

The conclusions and recommendations presented in this report were drawn from available records and the visual site inspection. The conclusions, including ordnance risk assessments, were based on confirmed/documented evidence and potential/reasonably inferred evidence from the investigation. The recommendations were based on present DERP FUDS program goals and policies, with implementation subject to approval and appropriate funding actions.

## 2. CONCLUSIONS

### a. Summary of Conclusions

Table 2-1 has been provided to summarize conclusions made on confirmed and potential OE on/within the former Montauk Torpedo Testing Range (Area 'B').

### b. Historical Site Summary

(1) The War Department/Navy on December 31, 1942 informed the P. T. Cox Construction Company, Incorporated with a letter of intent to enter into a contract to build the torpedo testing range at Montauk. After the local fishing village of Montauk was relocated, the construction work began. The project was completed on Area 'B' at great neck speed and by 25 March 1943 the base was commissioned.

(2) When all the construction was finished, the Navy had five areas that came under the command of the Naval Torpedo Testing Range at Montauk. The total of these five areas was approximately 165 acres that was acquired through condemnation, fee simple and lease. Area 'B', the subject of this project consisted of 45 acres and was used for testing torpedoes.

(3) The two torpedoes that were tested at Montauk were the air launched Mark 13 and the surface launched Mark 15. These torpedoes were steam operated with inert warheads filled with air, so they would bob in the water for easy recovery. By far, the surface launched torpedo mission was abundantly more involved than the air launched torpedo mission. The air mission only lasted for 10 months, while the surface mission continued throughout the entire existence.

(4) Months before the end of World War II the Navy issued a notice that the testing range will be disestablished on 1 March 1945. The new mission of the subject area would be the stowage of inert ordnance material. Along with the new mission change, the Navy wanted to also downsize the five areas that were once part of the Montauk Torpedo Testing Range's Command. With the acreage downsizing, the name was changed to the U. S. Naval Magazine, with the Navy only retaining 34.72 acres of the original 45 acres.

(5) On November 15, 1949 the Navy sold the remaining property to Goble Aircraft Specialties, Incorporated, thus ending the Navy presence on Montauk.

### **c. Site Eligibility**

(1) A Preliminary Assessment (PA) of the Montauk Torpedo Testing Range (Area 'B') was conducted under the Defense Environmental Restoration Program, Formerly Used Defense Sites (DERP FUDS) by the U.S. Army Corps of Engineers, New York District (CENAN) in October 1992 (site number C02NY076600). At that time, it was determined that the site was formerly used by the U.S. Navy. The signed FDE stated that the site was eligible for restoration under the purview of DERP FUDS. It also concluded that the site was 75.4 acres, which has now been determined to include only 45 acres.

### **d. Visual Site Inspection**

(1) During the period of 10 July through 14 July 1995, members of the Assessment Team, Mr. Greg W. Olson and Mr. Nick Iaienarro, traveled to the former Montauk Torpedo Testing Range (**Area 'B'**), in Montauk Long Island, New York, Suffolk County New York.

(2) During the inspection teams' visit, no OE was observed on the former torpedo testing range.

(3) Interviews with site-related personnel did confirm small arms ammunition along the beach area, in the bay, and dummy torpedoes in Block Island Sound. No other OE was confirmed within the site since the closure in November 1949.

### **e. Confirmed Ordnance Subsites**

Confirmed ordnance contamination is based on verifiable historical evidence or direct witness of ordnance items since site closure. Documentation, interviews and the site visit does show signs of ordnance contamination. Areas C, D and E are confirmed areas with contamination of small arms ammunition in Areas C and D, and dummy torpedoes in Area E. Area C is confirmed for the beach area, Area D for the submerged lands under Fort Pond Bay and Area E for the submerged lands under Block Island Sound.

### **f. Potential Ordnance Subsites**

Potential ordnance contamination is based on the likely existence of OE due to its verified use or location in relation to ordnance related activities. No areas associated with this site exist for potential OE contamination.

### **g. Uncontaminated Ordnance Subsites**

Uncontaminated ordnance subsites are based on a lack of confirmed or potential ordnance contamination. Areas A and B are considered uncontaminated based on a lack of confirmed/potential OE findings. The risk assessments and Table 2-1 are based upon this premise (see plate 5).

### **h. Other Environmental Hazards**

(1) A potential Hazardous, Toxic, and Radiological Waste (HTRW) project is associated with this site. Facilities Maps dated 1943/1948 show a septic system located in the northern part of the subject site. It has been confirmed through interviews and photographs that the Navy used this area for their sewage disposal and leeching field (see plate 3), which could contribute to present day HTRW.

(2) There are no potential Building Demolition/Debris Removal (BD/DR) projects for Areas A, C and E. However, for Areas B and D a potential hazard exists. Area B still has the septic chamber that could be a falling hazard and Area D has the leftover 'junk' that could cause not only a swimming hazard, but an underwater hazard to recreational scuba divers and commercial fishermen.

## **3. RECOMMENDATIONS**

### **a. Summary of Recommendations**

(1) **Area A:** Due to the fact that OE was not discovered during the demolition of this area and that historical records do not indicate any reasonable potential for OE to exist in this area, No Further Action is recommended (NOFA).

(2) **Area B:** This area is not included in the FDE, but various interviews with the local population confirmed that the Navy used this area for a sewage disposal and leeching field. This area in regards to OE is considered uncontaminated. No Further Action is recommended (NOFA).

(3) **Area C:** Because of the close association of the beach and tidal/stormy waters, the possibility of more small arms ammunition being washed ashore is real. Also, there is a possibility of more small arms ammunition being buried under the sand and a storm could expose these items. Due to the probability of more small arms ammunition being buried under the sand an EE/CA is recommended to determine whether a hazard exists. Also, when a storm comes out of the north/northeast, a routine should be set-up between local authorities and the New York District for someone to comb the beach area for possible OE contamination that could have washed ashore (see Table 3-2).

(4) **Area D:** This area is not included in the FDE, but because of confirmed discoveries of small arms ammunition through interviews with local scuba divers, this area should be added to the FDE. While the OE contamination is not necessarily related to this site and is more likely from other FUDS surrounding the bay, the fact is it was used as a part of this site, which does contain confirmed OE. Current guidance states that a 100 yard limit off the shoreline for OE projects is in effect except in certain circumstances. It is believed this should be considered an exception, because of the close proximity of recreational activities, i.e. scuba diving, fishing, swimming and small craft boating in the bay. An EE/CA is recommended for this area because of the existence of small arms ammunition and the extensive 'junk' that the Navy left behind, making a conceivable underwater hazard (see Table 3-2).

(5) **Area E:** This area is also not included in the FDE. However, due to the citing of the area as a hazard zone during the testing of the torpedo range it should be included in the FDE. The only OE discoveries related to this site was dummy torpedoes. The contents contained within the original torpedoes would have been ethyl alcohol for fuel, which is not considered an explosive, but a flammable substance and the pyrotechnic igniter, which had to be expended along with the fuel in order to propel the torpedo throughout its course into the Sound. Additionally with current guidance, limiting off-shore OE projects to 100 yards, this area would not qualify for remediation action. With the hazards associated with Block Island Sound such as commercial boat traffic, recreational divers are less likely to dive out in the Sound, No Further Action is recommended. However, one cannot rule the past and maybe future discoveries of other OE in this area due to other FUDS areas located in and around Block Island Sound.

(6) Table 3-1 summarizes all the area recommendations.

#### **b. Preliminary Assessment Actions**

(1) Based on the information obtained by the inspection team, it is recommended that the New York District revise the Inventory Project Report (INPR) to more accurately reflect the site history and revise the site acreage to 45 in the Findings and Determination of Eligibility (FDE).

(2) Recommend a Preliminary Assessment be conducted by the New York District for all the additional potential FUDS areas listed in the ASR Findings, paragraph 5. b., based on additional information obtained during this Archive Search Report.

### c. Ordnance and Explosive Waste Actions

(1) Recommend an EE/CA for **Area C** to determine if this area has buried contamination attributable to previous OE washing in from the bay and being buried by the shifting sands.

(2) Recommend **Area D** be added to the FDE and an EE/CA be initiated to determine the extent of the OE contamination that exists in Fort Pond Bay. In addition, recommend that the 100 yard off-shore limit be waived for this particular area, as it should be classified as an exception.

(3) No Further Action (NOFA) is recommended for **Areas A, B and E**.

(4) Table 3-2 has been included to address issues and concerns relating to recommended OE actions.

### d. Other Environmental Remediation Actions

(1) Within **Area B** there is the former Navy's septic system, a further investigation by the New York District is recommended to determine if this area presents any HTRW hazard.

(2) Also, within **Area B** is the sewage chamber that should be removed and filled in with earth to remove the falling hazard. This particular land belongs to Alfred Barone, who has at this time has not been receptive to the teams phone messages.

(3) **Area D** has underwater hazards that could be a danger to recreational scuba divers and local fisherman. Recommend New York District further investigate to find the extent of the debris and possible 'junk' removal.

**TABLE 2-1  
SUMMARY OF CONCLUSIONS**

Area	Former Usage	Present Usage	Probable End Usage	*Size Acres	FUDS ELIGIBILITY		ORDNANCE PRESENCE			Risk Assessment Code
					Confirmed FUDS	Potential FUDS	Confirmed Ordnance Presence	Potential Ordnance Presence	Uncontaminated	
A	Industrial Area	Residential	Same	40.0	Yes	--	--	--	Yes	5
B	Sewage Disposal Area	Residential/Undeveloped	Same	**2.18	---	Yes	--	--	Yes	5
C	Beach Area	Residential	Same	2.82	Yes	--	Yes	--	---	3
D	Launch Area	Recreational	Same	**438.0	--	Yes	Yes	--	---	3
E	Recovery Area	Commercial	Same	**20100.0	--	Yes	Yes	--	---	3
*Approximate acreage			TOTAL	45.00	Actual Site					
**Not included in (FDE) acreage				20538.18	Additional Water Area					
			TOTAL	20583.00						

**TABLE 3-1  
Summary of Recommendations**

Area	Former Usage	*Size Acres	PA	OEW Actions				HTRW	BD/DR
			Actions	No Further Action	Perform IRA	Perform ESI	Perform EE/CA	Actions	Actions
			Prepare INPR					Perform SI	Perform SI
A	Industrial Area	40.0		Yes	--	--	--	--	--
B	Sewage Disposal Area	2.18	**	Yes	--	--	--	Yes	Yes
C	Beach Area	2.82		---	--	--	Yes	--	--
D	Launch Area	438.0	**	---	--	--	Yes	--	Yes
E	Recovery Area	20100.0	**	Yes	--	--	--	--	--

\*Approximate acreage  
\*\*Revise current INPR to include this acreage

**TABLE 3-2**  
**EE/CA ISSUES AND CONCERNS**

Area	Size Acres	ESI Work Item	Issues/Concerns
C	*2.82	Field Work: Site Description	Flat to gently sloping sandy beach
		Sweeps/Disposal	Condomimuns within 100 feet of beach, will have to coordinate with many owners (G-5)
		Political Atmosphere	Tensions are high due to a commercial Ferry project at Perry Duryea's dock on Fort Pond Bay. Nobody wants this Ferry and the local people are looking for reasons to prevent it.
		Weather	Possible tropical storms, August through October
		Endangered Species	Various plants and marine animals in area, contact N.Y. DEC

\*Approximate acreage

**TABLE 3-2 (Continued)  
EE/CA ISSUES AND CONCERNS**

Area	Size Acres	EE/CA Design Item	Issues/Concerns
D	*438.0	Field Work: Site/Area Description	Bay, sand to muddy bottom moving away from beach area, water depth approx. 12 feet 50 yards from shore, then drops to 47 feet, ave. depth of Bay water 50 feet
		Political Atmosphere	Tensions are high due to a commercial Ferry project at Perry Duryea's dock on Fort Pond Bay. Nobody wants this Ferry and the local people are looking for reasons to prevent it.
		Sweeps	Underwater site will make the sweeps difficult.
		OE Disposal	Residential housing and area businesses are within 1500 ft. Commercial fishing will be difficult to coordinate actions.
		Site End Use	Recreational diving, fishing/commercial fishing, possible commercial Ferry
		Weather	Possible tropical storms, August through October
		Endangered Species	Various marine animals, contact N.Y. DEC

ORDNANCE AND EXPLOSIVE  
ARCHIVES SEARCH REPORT  
MONTAUK, L. I., N. Y.  
PROJECT NUMBER C02NY076602

ATTACHMENTS

RISK ASSESSMENTS

ATTACHMENTS

Table of Contents

- A. Risk Assessment for Areas A and B
- B. Risk Assessment for Areas C and D
- C. Risk Assessment for Area E
- D. Risk Assessment for Overall Site

RISK ASSESSMENT PROCEDURES FOR  
 ORDNANCE AND EXPLOSIVE (OE) SITES

Site Name	<u>Montauk Torpedo Range</u>	Rater's Name	<u>Greg W. Olson</u>
Site Location	<u>Montauk L.I., N.Y.</u>	Phone No.	<u>(309) 794-6016</u>
DERP Project #	<u>C02NY076602</u>	Organization	<u>CENCR-ED-DO</u>
Date Completed	<u>September 19, 1995</u>	RAC Score	<u>AREAS A and B (5)</u>

OE RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The OE risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OE hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OE sites should view the CEHND video tape entitled "A Life Threatening Encounter: OE."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE  
 (Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	10
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Conventional Ordnance and Ammunition <u>(Select the largest single value)</u>	<u>0</u>

What evidence do you have regarding conventional OE?  
 Historical documentation states testing range used to test the delivery vehicles only, no HE warheads used.

B. Pyrotechnics. (For munitions not described above)

VALUE

Munition (Container) Containing  
White Phosphorous (WP) or other  
Pyrophoric Material (i.e.,  
Spontaneously Flammable) 10

Munition Containing a Flame  
or Incendiary Material (i.e. Napalm,  
Triethylaluminum Metal Incendiaries) 6

Flares, Signals, Simulators, Screening  
Smoke (other than WP) 4

Pyrotechnics (Select the largest single value) 0

What evidence do you have regarding pyrotechnics? Historical  
documentation indicates these items were stored in the seaplane  
area, which is a future DERP-FUDS project.

C. Bulk High Explosives (Not an integral part of convention ordnance;  
uncontainerized.)

VALUE

Primary or Initiating Explosive  
(Lead Styphnate, Lead Azide,  
Nitroglycerin, Mercury Azide,  
Mercury Fulminate, Tetracene, etc.) 10

Demolition Charges 10

Secondary Explosives 8  
(PETN, Composition A, B, C,  
Tetryl, TNT, RDX, HMX, HBX,  
Black Powder, etc).

Military Dynamite 6

Less Sensitive Explosives 3  
(Ammonium Nitrate, Explosive D, etc).

High Explosives (Select the largest single value) 0

What evidence do you have regarding bulk explosives? Historical  
documentation indicating no storage/use of bulk explosives.

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or  
other conventional ordnance; uncontainerized)

VALUE

Solid or Liquid Propellants 6  
Propellants 0

What evidence do you have regarding propellants? Historical  
documentation indicating no storage of bulk propellants.

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5
Chemical and Radiological (Select the largest single value)	<u>0</u>
What evidence do you have of chemical/radiological OE? <u>of this material being located/used on site.</u>	<u>No evidence</u>

=====

TOTAL HAZARD SEVERITY VALUE 0  
 (Sum of Largest Values for A through E--Maximum of 61).  
 Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY\*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
MARGINAL	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		<u>0</u>

\* Apply Hazard Severity Category to Table 3.

\*\* If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	3	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

- RAC 1 Expedite INPR, recommending further action by CEHND - Immediately call CEHND-ED-SY--commercial 205-955-4968 or DSN 645-4968.
- RAC 2 High priority on completion of INPR - Recommend further action by CEHND.
- RAC 3 Complete INPR - Recommend further action by CEHND.
- RAC 4 Complete INPR - Recommend further action by CEHND.
- RAC 5** Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHND.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

These areas A and B are considered uncontaminated due to the fact that Area A was completely demolished by the Grimes Construction Company and large volumes of earth were moved and nothing was discovered. As for Area B, this was the Navy's septic system/leeching field. This was confirmed by local residents that lived in the area during the torpedo testing ranges existence. According to historical documents all the explosives where stored in magazines, located in Area 'A', the Seaplane Base on the other side of Fort Pond Bay, which is another OE Project Site.

RISK ASSESSMENT PROCEDURES FOR  
ORDNANCE AND EXPLOSIVE (OE) SITES

Site Name	<u>Montauk Torpedo Range</u>	Rater's Name	<u>Greg W. Olson</u>
Site Location	<u>Montauk L.I., N.Y.</u>	Phone No.	<u>(309) 794-6016</u>
DERP Project #	<u>C02NY076602</u>	Organization	<u>CENCR-ED-DO</u>
Date Completed	<u>September 19, 1995</u>	RAC Score	<u>AREAS C and D (3)</u>

## OE RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The OE risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OE hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OE sites should view the CEHND video tape entitled "A Life Threatening Encounter: OE."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE  
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	10
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	①
Conventional Ordnance and Ammunition (Select the largest single value)	<u>1</u>

What evidence do you have regarding conventional OE? Site related interviews confirm OE (small arms ammunition) on Fort Pond Bay bottom and beach area after a storm.

B. Pyrotechnics. (For munitions not described above)

	VALUE
Munition (Container) Containing White Phosphorous (WP) or other Pyrophoric Material (i.e., Spontaneously Flammable)	10
Munition Containing a Flame or Incendiary Material (i.e. Napalm, Triethylaluminum Metal Incendiaries)	6
Flares, Signals, Simulators, Screening Smoke (other than WP)	4
Pyrotechnics (Select the largest single value)	<u>0</u>
What evidence do you have regarding pyrotechnics? <u>Historical</u> documentation states these items were stored in the seaplane area, which is a future DERP-FUDS	

C. Bulk High Explosives (Not an integral part of convention ordnance; uncontainerized.)

	VALUE
Primary or Initiating Explosive (Lead Styphnate, Lead Azide, Nitroglycerin, Mercury Azide, Mercury Fulminate, Tetracene, etc.)	10
Demolition Charges	10
Secondary Explosives (PETN, Composition A, B, C, Teteryl, TNT, RDX, HMX, HBX, Black Powder, etc).	8
Military Dynamite	6
Less Sensitive Explosives (Ammonium Nitrate, Explosive D, etc).	3
High Explosives (Select the largest single value)	<u>0</u>
What evidence do you have regarding bulk explosives? <u>Historical</u> documentation indicating no storage of bulk explosives.	

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or other conventional ordnance; uncontainerized)

	VALUE
Solid or Liquid Propellants	6
Propellants	<u>0</u>
What evidence do you have regarding propellants? <u>Historical</u> documentation indicating no storage of bulk propellants.	

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5
Chemical and Radiological (Select the largest single value)	<u>0</u>

What evidence do you have of chemical/radiological OEW? Historical  
documentation stating no items of this nature stored at site.

TOTAL HAZARD SEVERITY VALUE 1  
 (Sum of Largest Values for A through E--Maximum of 61).  
 Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY\*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
MARGINAL	III	5 to 9
<b>NEGLIGIBLE</b>	IV	1 to 4
**NONE		0

\* Apply Hazard Severity Category to Table 3.

\*\* If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF OEW HAZARD  
(Circle all values that apply)

A. Locations of OEW Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	(2)
Location (Select the single largest value)	<u>2</u>
What evidence do you have regarding location of OEW?	<u>Site related</u> interviews with local scuba divers, small arms everywhere on bottom. <u>Site related interview confirms discovery on beach after storm.</u>

B. Distance to nearest inhabited locations or structures likely to be at risk from OE hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	(5)
1250 feet to 0.5 miles	4
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1
Distance (Select the single largest value)	<u>5</u>
What are the nearest inhabited structures?	<u>Condomimuns and local</u> <u>businesses located on Fort Pond Bay.</u>

C. Number of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
26 and over	⑤
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0
Number of Buildings (Select the single largest value) Condomimuns and fishing businesses located on Fort Pond Bay.	<u>5</u>

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	⑤
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0
Types of Buildings (Select the largest single value)	<u>5</u>
Describe types of buildings in the area. <u>Condomimuns, wood/concrete</u> <u>.structures/businesses wood structures.</u>	

E. Accessibility to site refers to access by humans to ordnance and explosive. Use the following guidance:

BARRIER	VALUE
No barrier or security system	⑤
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	1
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0
Accessibility (Select the single largest value)	<u>5</u>
Describe the site accessibility. <u>Frequent recreational scuba divers, local condomimun residents, fisherman, the beaches and waters are open.</u>	

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	⑤
None Anticipated	0
Site Dynamics (Select largest value)	<u>5</u>
Describe the site dynamics. <u>Storms out of a notherly direction, washing small arms ashore or uncovering same items on beach.</u>	

=====  
 Total Hazard Probability Value  
 (Sum of Largest Values for A through F--Maximum of 30) 27

Apply this value to Hazard Probability Table 2 to determine  
 Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY\*

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	C	15 to 20
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

\* Apply Hazard Probability Level to Table 3.

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	3	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

- RAC 1 Expedite INPR, recommending further action by CEHND - Immediately call CEHND-ED-SY--commercial 205-955-4968 or DSN 645-4968.
- RAC 2 High priority on completion of INPR - Recommend further action by CEHND.
- RAC 3 Complete INPR - Recommend further action by CEHND.
- RAC 4 Complete INPR - Recommend further action by CEHND.
- RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHND.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

Areas C and D are confirmed for small arms ammunition based on site related interviews. This has been the only OE confirmed in these areas, but there is a potential for a multitude of OE items that could be in the Bay, but could not be included in this RAC. Again, the sole mission of the torpedo testing range was to test the delivery vehicles and not the warheads. Site related interviews confirm that the warheads were filled with sand for ballast and documentation talks about torpedoes bobbing in the water waiting for the chase boats to recover them.

18 April 1994

Previous editions obsolete

RISK ASSESSMENT PROCEDURES FOR  
ORDNANCE AND EXPLOSIVE WASTE (OEW) SITES

Site Name	<u>Montauk Torpedo Range</u>	Rater's Name	<u>Greg W. Olson</u>
Site Location	<u>Montauk, L.I., N.Y.</u>	Phone No.	<u>(309) 794-6016</u>
DERP Project #	<u>C02NY076602</u>	Organization	<u>CENCR-ED-DO</u>
Date Completed	<u>September 19, 1995</u>	RAC Score	<u>AREA E 3</u>

OEW RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The OEW risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OEW hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OEW sites should view the CEHND video tape entitled "A Life Threatening Encounter: OEW."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE  
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	10
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	1
Conventional Ordnance and Ammunition ( <u>Select the largest single value</u> )	<u>0</u>

What evidence do you have regarding conventional OEW? Historical documentation and interviews with site related personnel said used inert warheads, only tested the delivery vehicles.

B. Pyrotechnics. (For munitions not described above)

VALUE

Munition (Container) Containing  
White Phosphorous (WP) or other  
Pyrophoric Material (i.e.,  
Spontaneously Flammable)

10

Munition Containing a Flame  
or Incendiary Material (i.e. Napalm,  
Triethylaluminum Metal Incendiaries)

6

Flares, Signals, Simulators, Screening  
Smoke (other than WP)

4

Pyrotechnics (Select the largest single value)

6

What evidence do you have regarding pyrotechnics? Information  
received from Navy indicate pyrotechnic igniter used to ignite fuel.

C. Bulk High Explosives (Not an integral part of convention ordnance;  
uncontainerized.)

VALUE

Primary or Initiating Explosive  
(Lead Styphnate, Lead Azide,  
Nitroglycerin, Mercury Azide,  
Mercury Fulminate, Tetracene, etc.)

10

Demolition Charges

10

Secondary Explosives  
(PETN, Composition A, B, C,  
Tetryl, TNT, RDX, HMX, HBX,  
Black Powder, etc).

8

Military Dynamite

6

Less Sensitive Explosives  
(Ammonium Nitrate, Explosive D, etc).

3

High Explosives (Select the largest single value)

0

What evidence do you have regarding bulk explosives? Historical  
documentation indicating no storage of bulk explosives.

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or  
other conventional ordnance; uncontainerized)

VALUE

Solid or Liquid Propellants

6

Propellants

0

What evidence do you have regarding propellants? Historical  
documentation indicating no storage of bulk propellants.

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5
Chemical and Radiological (Select the largest single value)	<u>0</u>
What evidence do you have of chemical/radiological OEW? <u>Historical</u> <u>documentation indicating no storage of these materials at the site.</u>	

=====

TOTAL HAZARD SEVERITY VALUE 6  
 (Sum of Largest Values for A through E--Maximum of 61).  
 Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY\*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
<b>MARGINAL</b>	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

\* Apply Hazard Severity Category to Table 3.

\*\* If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF OEW HAZARD  
(Circle all values that apply)

A. Locations of OEW Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	②
Location (Select the single largest value)	<u>2</u>
What evidence do you have regarding location of OEW? on bottom of Block Island Sound or buried in mud.	<u>Possible</u>

B. Distance to nearest inhabited locations or structures likely to be at risk from OEW hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	5
1250 feet to 0.5 miles	④
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1
Distance (Select the single largest value)	<u>4</u>
What are the nearest inhabited structures?	<u>Buildings on land and commercial boat traffic.</u>

C. Number of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
26 and over	5
16 to 25	④
11 to 15	3
6 to 10	2
1 to 5	1
0	0
Number of Buildings (Select the single largest value) Residential housing and businesses.	<u>4</u>

---

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	⑤
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0
Types of Buildings (Select the largest single value)	<u>5</u>
Describe types of buildings in the area.	<u>Residential housing/wood</u> <u>.Businesses/wood structures.</u>

E. Accessibility to site refers to access by humans to ordnance and explosive wastes. Use the following guidance:

BARRIER	VALUE
No barrier or security system	(5)
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	1
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0
Accessibility (Select the single largest value)	<u>5</u>
Describe the site accessibility. <u>Public water.</u>	

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	(5)
None Anticipated	0
Site Dynamics (Select largest value)	<u>5</u>
Describe the site dynamics. <u>Currents and Storms in Block Island Sound.</u>	

Total Hazard Probability Value  
(Sum of Largest Values for A through F--Maximum of 30)

25

Apply this value to Hazard Probability Table 2 to determine  
Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY\*

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	C	15 to 20
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

\* Apply Hazard Probability Level to Table 3.

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	3	4	5
MARGINAL	III	2	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

- RAC 1 Expedite INPR, recommending further action by CEHND - Immediately call CEHND-ED-SY--commercial 205-955-4968 or DSN 645-4968.
- RAC 2 High priority on completion of INPR - Recommend further action by CEHND.
- RAC 3 Complete INPR - Recommend further action by CEHND.
- RAC 4 Complete INPR - Recommend further action by CEHND.
- RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHND.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

Area E is considered confirmed based on the discoveries of inert torpedoes. The only explosive device associated with the torpedo was a pyrotechnic igniter. However, if the torpedo launched and started it's run, the igniter had to be expended. Therefore, any dummy torpedo netted in this area is expected to have an expended igniter. But, because documentation shows many other FUDS surrounding Block Island Sound (Area E) there could be an unlimited potential for OE other than dummy torpedoes to exist in this area, which cannot be factored into this RAC. In accordance with current guidance, since this area is more than 100 yards from shore a RAC 5 should be considered.

18 April 1994

Previous editions obsolete

RISK ASSESSMENT PROCEDURES FOR  
ORDNANCE AND EXPLOSIVE (OE) SITES

Site Name	<u>Montauk Torpedo Range</u>	Rater's Name	<u>Greg W. Olson</u>
Site Location	<u>Montauk L.I., N.Y.</u>	Phone No.	<u>(309) 794-6016</u>
DERP Project #	<u>CO2NY076602</u>	Organization	<u>CENCR-ED-DO</u>
Date Completed	<u>September 19, 1995</u>	RAC Score	<u>Overall Site 2</u>

OE RISK ASSESSMENT:

This risk assessment procedure was developed in accordance with MIL-STD 882C and AR 385-10. The RAC score will be used by CEHND to prioritize the remedial action at Formerly Used Defense Sites. The OE risk assessment should be based upon best available information resulting from records searches, reports of Explosive Ordnance Disposal (EOD) detachment actions, and field observations, interviews, and measurements. This information is used to assess the risk involved based upon the potential OE hazards identified at the site. The risk assessment is composed of two factors, **hazard severity and hazard probability**. Personnel involved in visits to potential OEW sites should view the CEHND video tape entitled "A Life Threatening Encounter: OE."

Part 1. Hazard Severity. Hazard severity categories are defined to provide a qualitative measure of the worst credible mishap resulting from personnel exposure to various types and quantities of unexploded ordnance items.

TYPES OF ORDNANCE  
(Circle all values that apply)

A. Conventional Ordnance and Ammunition	VALUE
Medium/Large Caliber (20 mm and larger)	10
Bombs, Explosive	10
Grenades, Hand and Rifle, Explosive	10
Landmines, Explosive	10
Rockets, Guided Missiles, Explosive	10
Detonators, Blasting Caps, Fuzes, Boosters, Bursters	6
Bombs, Practice (w/spotting charges)	6
Grenades, Practice (w/spotting charges)	4
Landmines, Practice (w/spotting charges)	4
Small Arms (.22 cal - .50 cal)	①
Conventional Ordnance and Ammunition ( <u>Select the largest single value</u> )	<u>1</u>

What evidence do you have regarding conventional OE? Site related interviews confirm OE (small arms ammunition) on Fort Pond Bay bottom and beach area after a storm.

B. Pyrotechnics. (For munitions not described above)

VALUE

Munition (Container) Containing  
White Phosphorous (WP) or other  
Pyrophoric Material (i.e.,  
Spontaneously Flammable) 10

Munition Containing a Flame  
or Incendiary Material (i.e. Napalm,  
Triethylaluminum Metal Incendiaries) ⑥

Flares, Signals, Simulators, Screening  
Smoke (other than WP) 4

Pyrotechnics (Select the largest single value) 6  
What evidence do you have regarding pyrotechnics? Pyrotechnic  
igniters were used in torpedo to ignite fuel oxygen mixture.

C. Bulk High Explosives (Not an integral part of convention ordnance;  
uncontainerized.)

VALUE

Primary or Initiating Explosive  
(Lead Styphnate, Lead Azide,  
Nitroglycerin, Mercury Azide,  
Mercury Fulminate, Tetracene, etc.) 10

Demolition Charges 10

Secondary Explosives 8  
(PETN, Composition A, B, C,  
Tetryl, TNT, RDX, HMX, HBX,  
Black Powder, etc).

Military Dynamite 6

Less Sensitive Explosives 3  
(Ammonium Nitrate, Explosive D, etc).

High Explosives (Select the largest single value) 0

What evidence do you have regarding bulk explosives? Historical  
documentation indicating no storage of bulk explosives.

D. Bulk Propellants (Not an integral part of rockets, guided missiles, or  
other conventional ordnance; uncontainerized)

VALUE

Solid or Liquid Propellants 6

Propellants 0

What evidence do you have regarding propellants? Historical  
documentation indicating no storage of bulk propellants.

E. Chemical Warfare Material and Radiological Weapons

	VALUE
Toxic Chemical Agents (Choking, Nerve, Blood, Blister)	25
War Gas Identification Sets	20
Radiological	15
Riot Control and Miscellaneous (Vomiting, Tear)	5
Chemical and Radiological (Select the largest single value)	<u>0</u>
What evidence do you have of chemical/radiological OEW? <u>Historical</u> <u>documentation stating no items of this nature stored at site.</u>	

=====

TOTAL HAZARD SEVERITY VALUE 7  
 (Sum of Largest Values for A through E--Maximum of 61).  
 Apply this value to Table 1 to determine Hazard Severity Category.

TABLE 1

HAZARD SEVERITY\*

Description	Category	Hazard Severity Value
CATASTROPHIC	I	21 and greater
CRITICAL	II	10 to 20
<u>MARGINAL</u>	III	5 to 9
NEGLIGIBLE	IV	1 to 4
**NONE		0

\* Apply Hazard Severity Category to Table 3.

\*\* If Hazard Severity Value is 0, you do not need to complete Part II. Proceed to Part III and use a RAC score of 5 to determine your appropriate action.

Part II. Hazard Probability. The probability that a hazard has been or will be created due to the presence and other related factors of unexploded ordnance or explosive materials on a formerly used DOD site.

AREA, EXTENT, ACCESSIBILITY OF OEW HAZARD  
(Circle all values that apply)

A. Locations of OEW Hazards

	VALUE
On the surface	5
Within Tanks, Pipes, Vessels or Other confined locations	4
Inside walls, ceilings, or other parts of Buildings or Structures	3
Subsurface	(2)
Location (Select the single largest value)	<u>2</u>
What evidence do you have regarding location of OEW? <u>Site related</u> <u>interviews with local scuba divers, small arms everywhere on bottom.</u> <u>Site related interview confirms discovery on beach after storm.</u>	

B. Distance to nearest inhabited locations or structures likely to be at risk from OE hazard (roads, parks, playgrounds, and buildings).

	VALUE
Less than 1250 feet	(5)
1250 feet to 0.5 miles	4
0.5 miles to 1.0 miles	3
1.0 miles to 2.0 miles	2
Over 2 miles	1
Distance (Select the single largest value)	<u>5</u>
What are the nearest inhabited structures? <u>Condomimuns and local</u> <u>businesses located on Fort Pond Bay.</u>	

C. Number of buildings within a 2 mile radius measured from the OEW hazard area, not the installation boundary.

	VALUE
26 and over	⑤
16 to 25	4
11 to 15	3
6 to 10	2
1 to 5	1
0	0
Number of Buildings (Select the single largest value) Condomimuns and fishing businesses located on Fort Pond Bay.	<u>5</u>

---

D. Types of Buildings (within a 2 mile radius)

	VALUE
Educational, Child Care, Residential, Hospitals, Hotels, Commercial, Shopping Centers	⑤
Industrial, Warehouse, etc.	4
Agricultural, Forestry, etc.	3
Detention, Correctional	2
No Buildings	0
Types of Buildings (Select the largest single value)	<u>5</u>
Describe types of buildings in the area.	<u>Condomimuns, wood/concrete</u> <u>.structures/businesses wood structures.</u>

E. Accessibility to site refers to access by humans to ordnance and explosive. Use the following guidance:

BARRIER	VALUE
No barrier or security system	(5)
Barrier is incomplete (e.g., in disrepair or does not completely surround the site). Barrier is intended to deny egress from the site, as for a barbed wire fence for grazing.	4
A barrier, (any kind of fence in good repair) but no separate means to control entry. Barrier is intended to deny access to the site.	3
Security guard, but no barrier	2
Isolated Site	1
a 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility, or An artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitor, locked entrance, or controlled roadway access to the facility).	0
Accessibility (Select the single largest value)	<u>5</u>
Describe the site accessibility. <u>Frequent recreational scuba divers, local condominum residents, fisherman, the beaches and waters are open.</u>	

F. Site Dynamics - This deals with site conditions that are subject to change in the future, but may be stable at the present. Example would be excessive soil erosion by beaches or streams, increasing land development that could reduce distance from the site to inhabited areas or otherwise increase accessibility.

	VALUE
Expected	(5)
None Anticipated	0
Site Dynamics (Select largest value)	<u>5</u>
Describe the site dynamics. <u>Storms out of a notherly direction, washing small arms ashore or uncovering same items on beach.</u>	

=====  
Total Hazard Probability Value  
(Sum of Largest Values for A through F--Maximum of 30) 27

Apply this value to Hazard Probability Table 2 to determine  
Hazard Probability Level.

TABLE 2

HAZARD PROBABILITY\*

Description	Level	Hazard Probability Value
FREQUENT	A	27 or greater
PROBABLE	B	21 to 26
OCCASIONAL	C	15 to 20
REMOTE	D	8 to 14
IMPROBABLE	E	less than 8

\* Apply Hazard Probability Level to Table 3.

Part III. Risk Assessment. The risk assessment value for this site is determined using the following Table 3. Enter with the results of the hazard probability and hazard severity values.

TABLE 3

Probability Level		FREQUENT A	PROBABLE B	OCCASIONAL C	REMOTE D	IMPROBABLE E
Severity Category:						
CATASTROPHIC	I	1	1	2	3	4
CRITICAL	II	1	2	3	4	5
MARGINAL	III	②	3	4	4	5
NEGLIGIBLE	IV	3	4	4	5	5

RISK ASSESSMENT CODE (RAC)

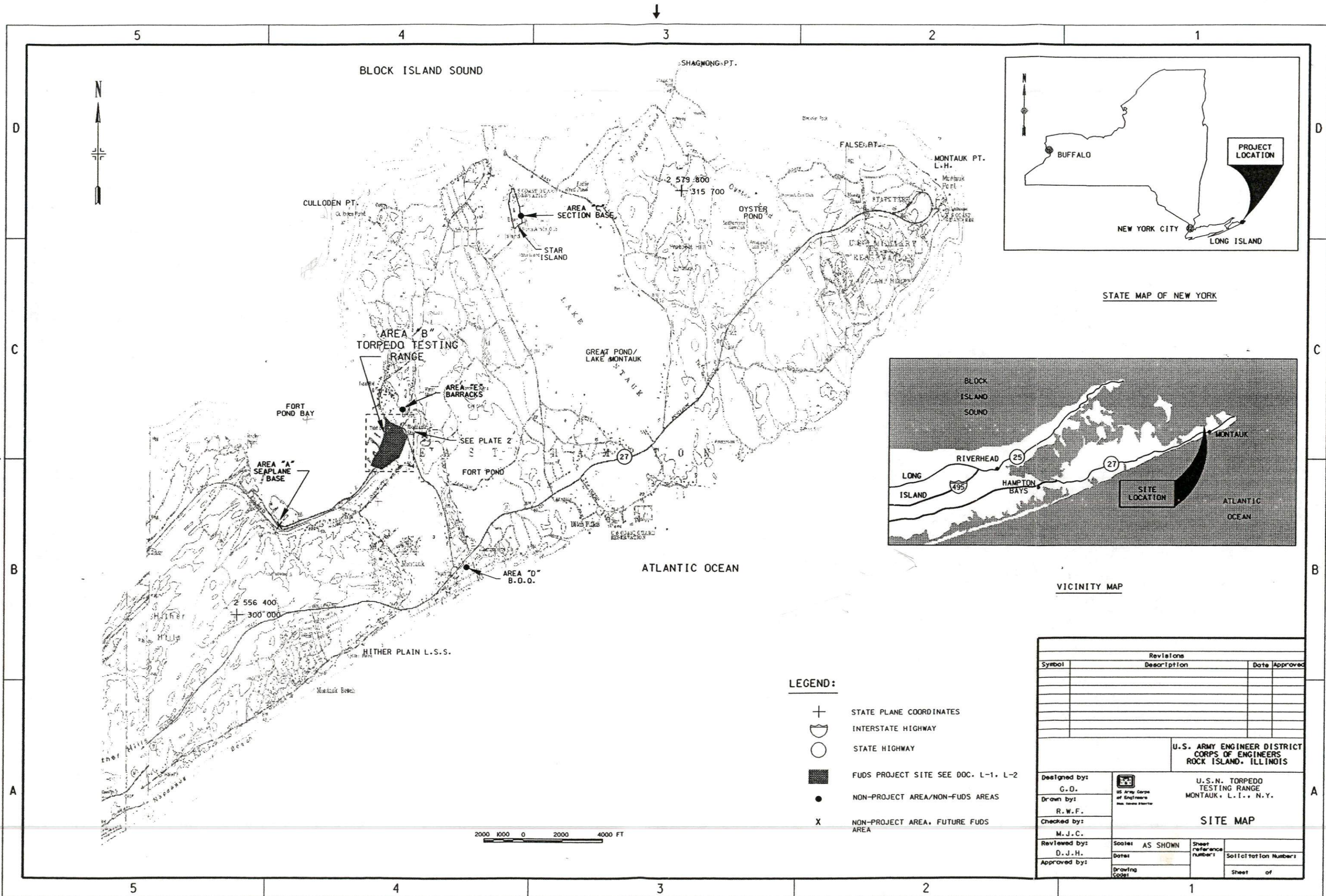
- RAC 1 Expedite INPR, recommending further action by CEHND - Immediately call CEHND-ED-SY--commercial 205-955-4968 or DSN 645-4968.
- ② RAC 2 High priority on completion of INPR - Recommend further action by CEHND.
- RAC 3 Complete INPR - Recommend further action by CEHND.
- RAC 4 Complete INPR - Recommend further action by CEHND.
- RAC 5 Usually indicates that no further action (NOFA) is necessary. Submit NOFA and RAC to CEHND.

Part IV. Narrative. Summarize the documented evidence that support this risk assessment. If no documented evidence was available, explain all the assumptions that you made.

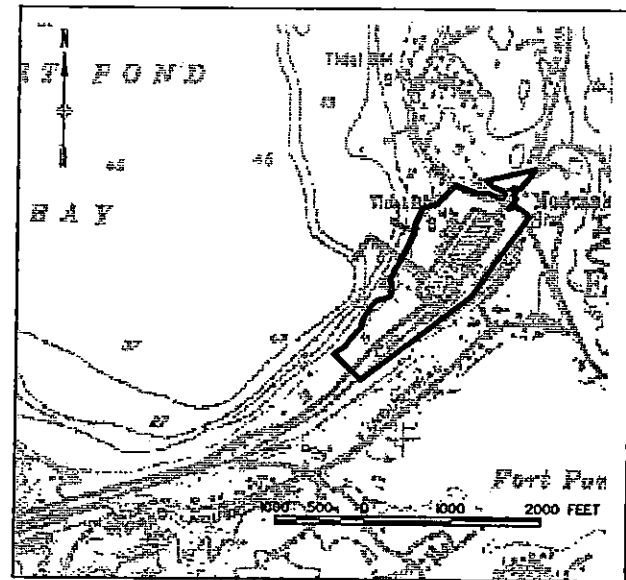
The original RAC was rated at 3 for the Torpedo Testing Range, but because of the torpedo igniters the RAC moves to a 2 rating. These igniters are of a pyrotechnic mixture used for lighting the fuel/oxygen in the combustion pot of the torpedo for propulsion. At this time, all documentation and site related interviews state that this range only tested the delivery vehicles of the torpedoes, not the warheads. Documentation talks about torpedoes bobing in the water and chase boats picking them up, plus site related interviews state that they used sand for ballast in the warheads. The only OE discovered at this time since the site closed has been small arms ammunition and dummy torpedoes. This has been confirmed by various site related interviewees. However, because documentation shows many other FUDS surrounding the Bay and Block Island Sound (Areas D and E), there could be an unlimited potential for OE other than small arms and dummy torpedoes to exist in these areas, which cannot be factored into this RAC.

ORDNANCE AND EXPLOSIVE  
ARCHIVES SEARCH REPORT  
FOR  
FORMER MONTAUK TORPEDO TESTING RANGE, AREA 'B'  
SUFFOLK COUNTY  
MONTAUK, L. I., N. Y.  
PROJECT NUMBER C02NY076602

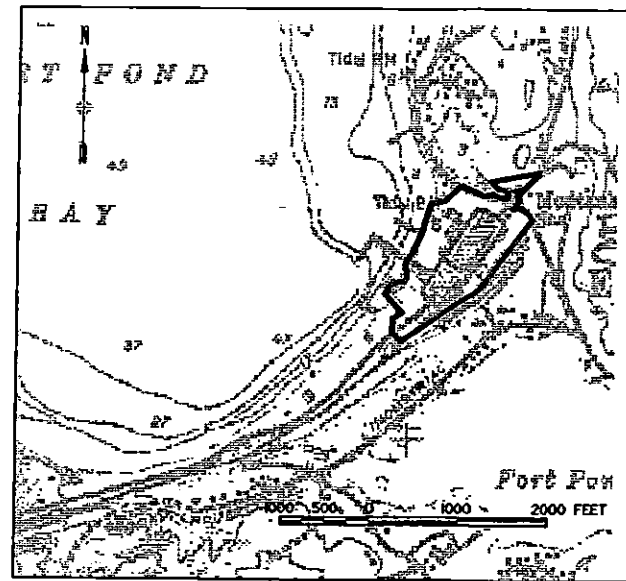
REPORT PLATES



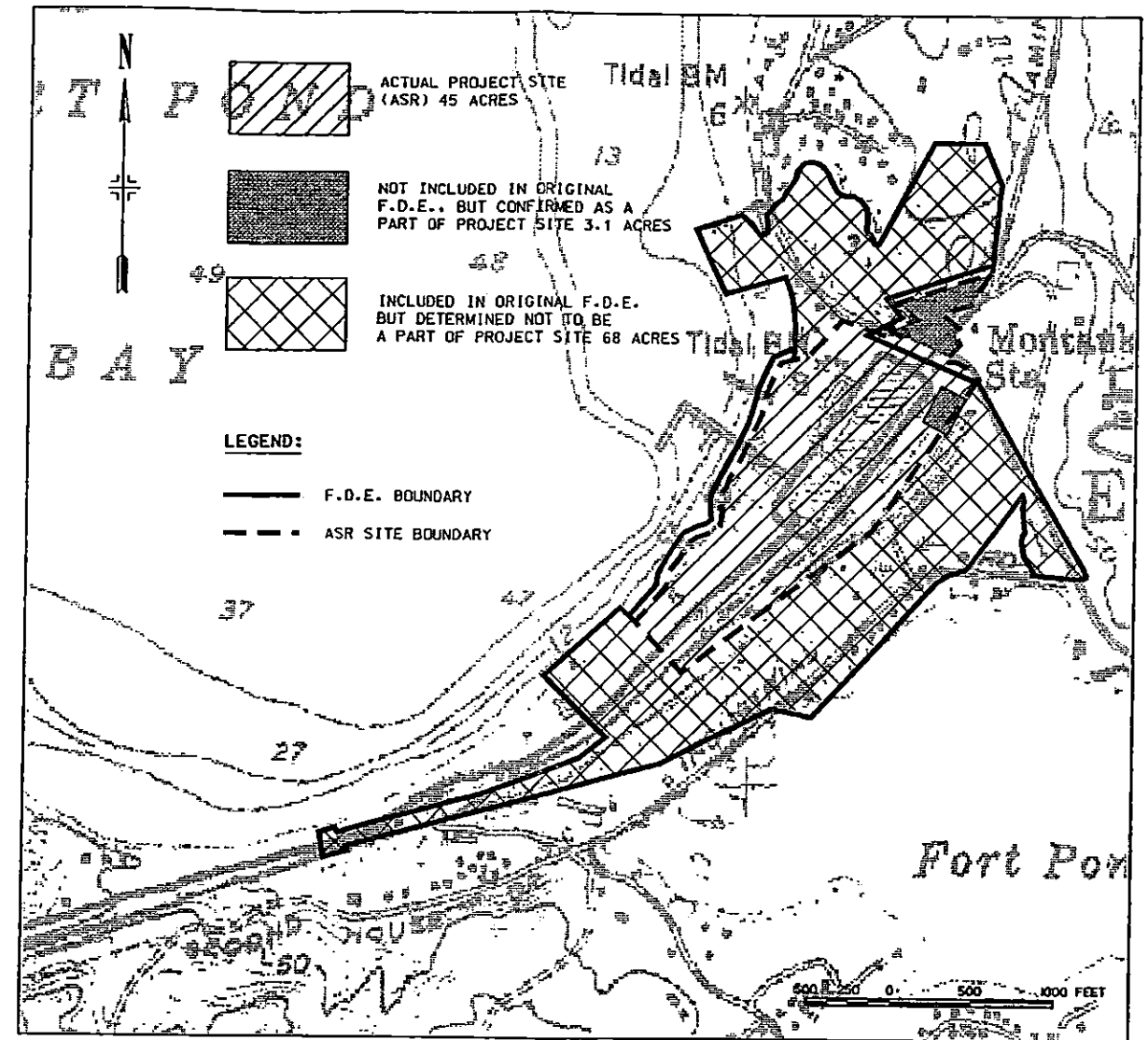
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SITE BOUNDARY  
CIRCA 1943/A.S.R. SITE  
(45 ACRES)



SITE BOUNDARY  
CIRCA 1948  
(34.72 ACRES)



BOUNDARY DISCREPANCIES

Revisions			
Symbol	Description	Date	Approved

U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS

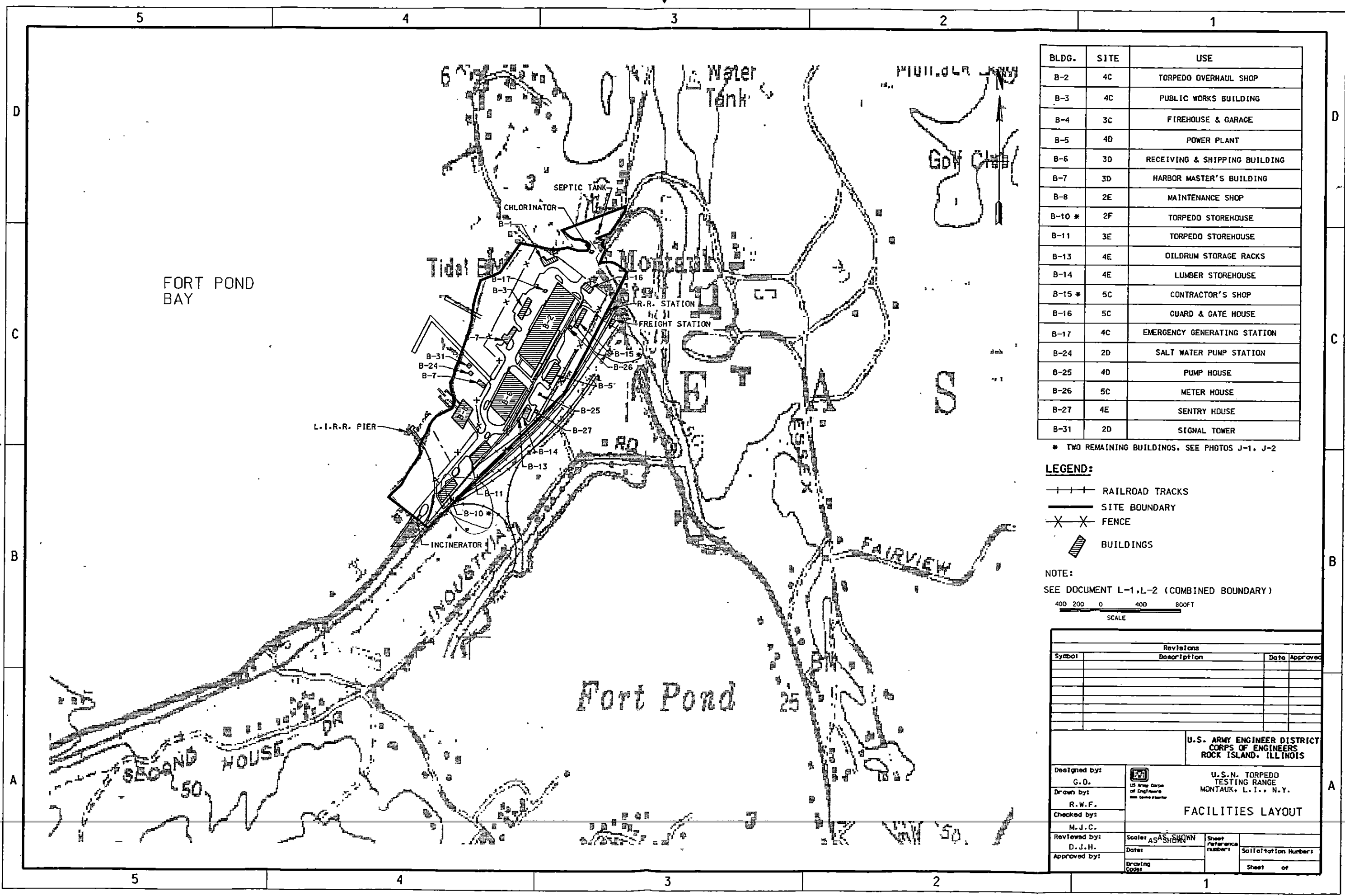
Designed by: G.O.  
Drawn by: R.W.F.  
Checked by: M.J.C.  
Reviewed by: D.J.H.  
Approved by: \_\_\_\_\_

U.S.N. TORPEDO  
TESTING RANGE  
MONTAUK, L.I., N.Y.

**BOUNDARY  
DISCREPANCIES**

Scales AS SHOWN  
Date: \_\_\_\_\_  
Drawing Code: \_\_\_\_\_

Sheet Reference Number: \_\_\_\_\_  
Solicitation Number: \_\_\_\_\_  
Sheet of \_\_\_\_\_



BLDG.	SITE	USE
B-2	4C	TORPEDO OVERHAUL SHOP
B-3	4C	PUBLIC WORKS BUILDING
B-4	3C	FIREHOUSE & GARAGE
B-5	4D	POWER PLANT
B-6	3D	RECEIVING & SHIPPING BUILDING
B-7	3D	HARBOR MASTER'S BUILDING
B-8	2E	MAINTENANCE SHOP
B-10 *	2F	TORPEDO STOREHOUSE
B-11	3E	TORPEDO STOREHOUSE
B-13	4E	OILDRUM STORAGE RACKS
B-14	4E	LUMBER STOREHOUSE
B-15 *	5C	CONTRACTOR'S SHOP
B-16	5C	GUARD & GATE HOUSE
B-17	4C	EMERGENCY GENERATING STATION
B-24	2D	SALT WATER PUMP STATION
B-25	4D	PUMP HOUSE
B-26	5C	METER HOUSE
B-27	4E	SENTRY HOUSE
B-31	2D	SIGNAL TOWER

\* TWO REMAINING BUILDINGS, SEE PHOTOS J-1, J-2

**LEGEND:**

- +—+— RAILROAD TRACKS
- SITE BOUNDARY
- X—X— FENCE
- ▨ BUILDINGS

**NOTE:**

SEE DOCUMENT L-1, L-2 (COMBINED BOUNDARY)



Revisions		
Symbol	Description	Date Approved

**U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS**

**U.S.N. TORPEDO  
TESTING RANGE  
MONTAUK, L.I., N.Y.**

**FACILITIES LAYOUT**

Designed by: C.D.		Sheet reference number: Solicitation Number: Sheet of
Drawn by: R.W.F.		
Checked by: M.J.C.	Scales AS SHOWN Dates:	Drawing Code:
Reviewed by: D.J.H.		
Approved by:		

LOCATION	SITE	REFERENCE
①	CAMP WICKOFF (1898)	SEE DOCUMENT H-4
②	NAVAL AIR STATION (1917-1920)	SEE DOCUMENT H-5
③	POSSIBLE ARTILLERY BATTERIES/ IMPACT AREA/DUMPSITE	SEE DOCUMENT H-6, I-4, I-14, I-15
④	PRACTICE BOMB/PRACTICE SEA MINE	SEE DOCUMENT H-9, H-10, I-28, I-11
⑤	POSSIBLE HE TORPEDO	SEE DOCUMENT I-28
⑥	CS GRENADES/SIMULATORS	SEE DOCUMENT I-28
⑦	HE TORPEDO NETTED	SEE DOCUMENT I-4

**LEGEND:**

- - - BOUNDARY, TORPEDO RANGE-  
DOCUMENT H-2
- RANGE, TORPEDO SURFACE LAUNCH-  
DOCUMENT F-2



Revisions			
Symbol	Description	Date	Approved

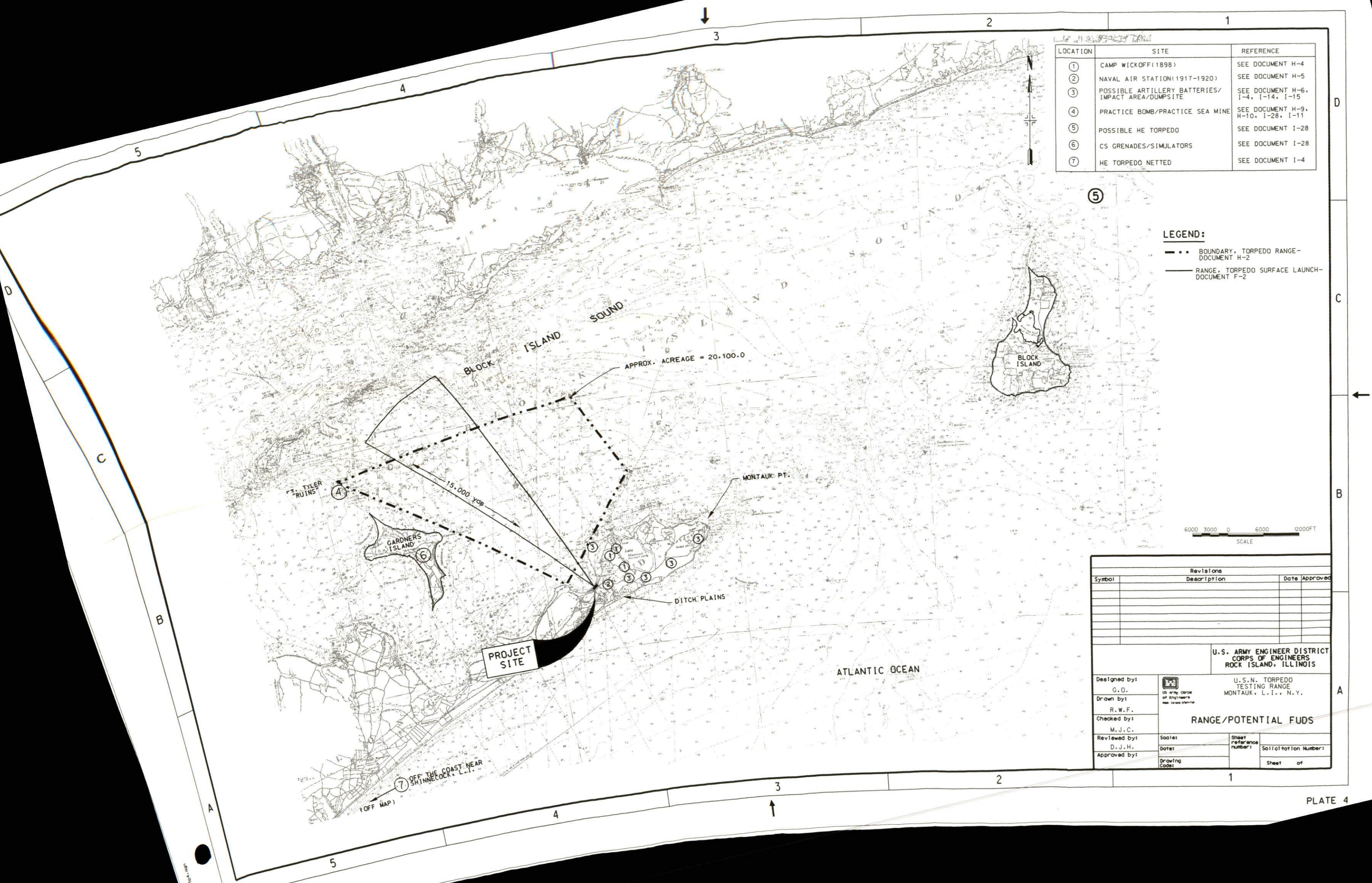
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS

Designed by:  
G. D.  
Drawn by:  
R. W. F.  
Checked by:  
M. J. C.  
Reviewed by:  
D. J. H.  
Approved by:

U.S. N. TORPEDO  
TESTING RANGE  
MONTAUK, L. I., N. Y.

**RANGE/POTENTIAL FUDS**

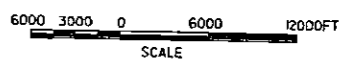
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Sheet of \_\_\_\_\_  
Solicitation Number: \_\_\_\_\_  
Drawing Code: \_\_\_\_\_







- LEGEND:**
- APPROXIMATE BOUNDARY, TORPEDO RANGE- DOCUMENT H-2
  - APPROXIMATE RANGE, TORPEDO SURFACE LAUNCH- DOCUMENT F-2
  - [Hatched Box] AREA D
  - [Cross-hatched Box] AREA E

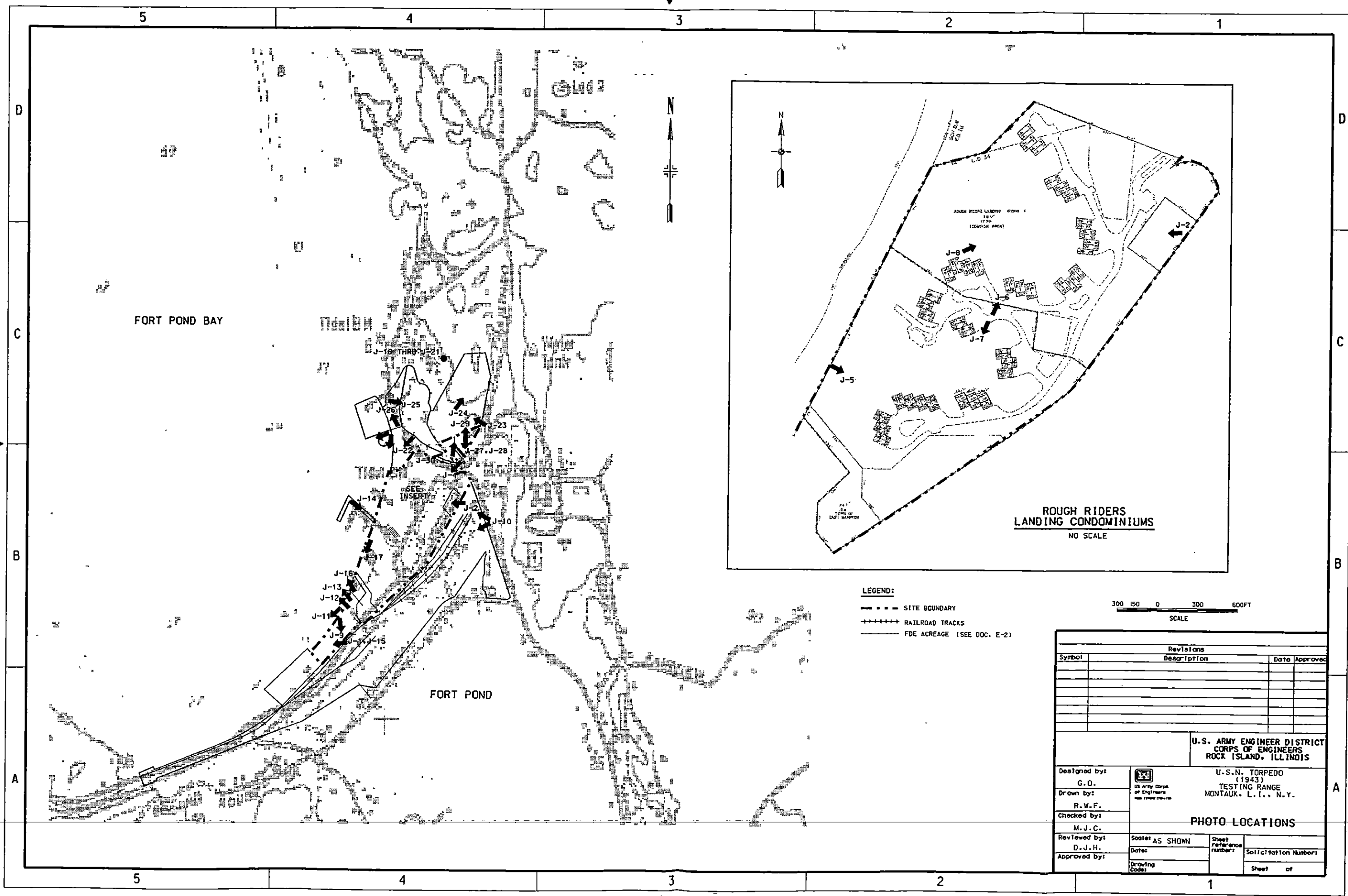


Revisions		Date		Approved	
Symbol	Description				

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS ROCK ISLAND, ILLINOIS		U.S.N. TORPEDO TESTING RANGE MONTAUK, L.I., N.Y.	
Designed by: G.O.		<b>PROJECT AREAS D &amp; E</b>	
Drawn by: R.W.F.			
Checked by: M.J.C.	Soles:	Sheet reference number:	Sollotation Number:
Reviewed by: D.J.H.	Dates:		
Approved by:	Drawing Code:		Sheet of






**LEGEND:**  
 - - - - - SITE BOUNDARY  
 + + + + + RAILROAD TRACKS  
 ——— FDE ACREAGE (SEE DOC. E-2)

300 150 0 300 600FT  
 SCALE

Revisions			
Symbol	Description	Date	Approved

**U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
ROCK ISLAND, ILLINOIS**

Designed by: G.D.	 U.S.N. TORPEDO (1943) TESTING RANGE MONTAUK, L.I., N.Y.
Drawn by: R.W.F.	
Checked by: M.J.C.	<b>PHOTO LOCATIONS</b>
Reviewed by: D.J.H.	
Approved by:	

Scale: AS SHOWN	Sheet Reference Number:	Solicitation Number:
Date:		
Drawing Code:		Sheet of