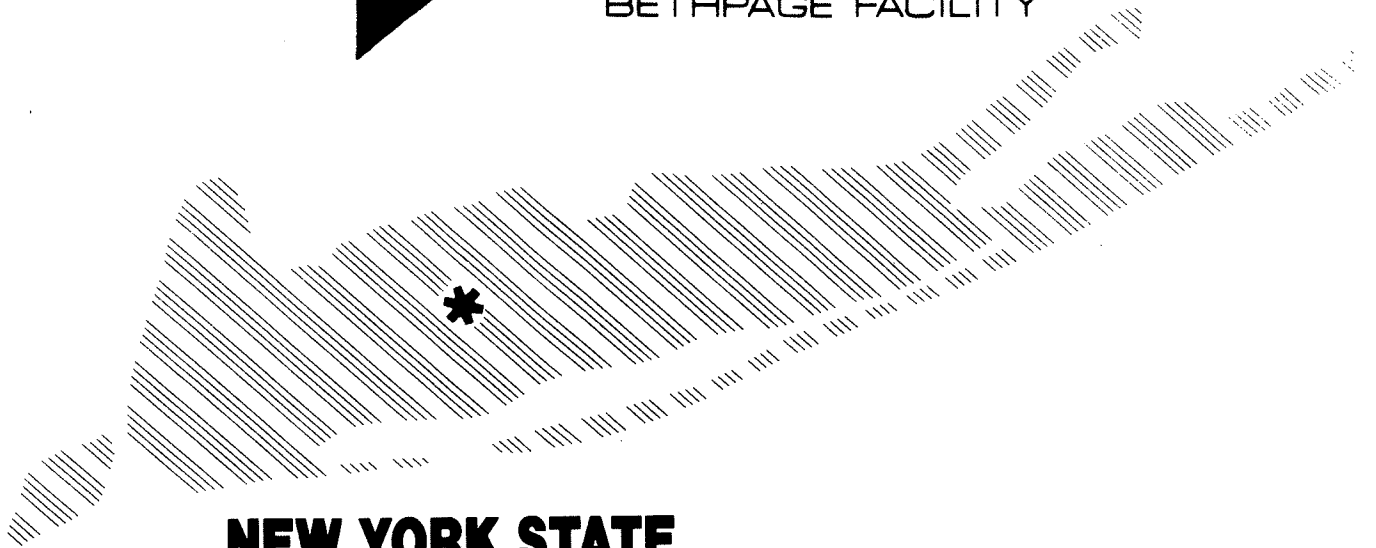


GRUMMAN AEROSPACE
CORPORATION
BETHPAGE FACILITY



**NEW YORK STATE
SITE REGISTRY DELISTING PETITION
SOUTH RUNWAY
HICKSVILLE, NEW YORK**

GRUMMAN AEROSPACE CORPORATION
BETHPAGE, NEW YORK



Dvirka and Bartilucci
Consulting Engineers

JANUARY 1995

NGINS000116587

Grumman Aerospace Corporation

Bethpage, New York 11714-3582

January 24, 1995

Langdon Marsh, Commissioner
New York State Department of
Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010

Re: New York State Site Registry Delisting Petition
South Runway Site
Hicksville, New York

Dear Mr. Marsh:

I am pleased to submit for your review three copies of the enclosed document, entitled "New York State Site Registry Delisting Petition, South Runway Site, Hicksville, New York," for the Grumman Aerospace Corporation property located north of Central Avenue and west of Sheridan Avenue in Hicksville, New York.

The report, prepared by our consultants, Dvirka and Bartilucci Consulting Engineers, documents the past and present use of the site based on a review of available records, along with a narrative review of chronological aerial photographs of the area from 1950 through 1988. In addition, a presentation of groundwater sampling results is provided with a comparison to appropriate standards.

The information presented in this report will assist the New York State Department of Environmental Conservation (NYSDEC) in determining the nature of the use of the site over the past 40 years and to evaluate the merits of the delisting petition. Based on the review of available information and the environmental data, we believe that the property is eligible for removal from the NYSDEC Site Registry of Inactive Hazardous Waste Disposal Sites, and as such, an appropriate modification to the boundaries of Site 1-30-003A is warranted.

If you have any comments and/or questions regarding this matter, do not hesitate to contact me at (516) 575-2385.

Very truly yours,

John Ohlmann, P.E.
Director, Corporate Environmental Protection

J. OHLMANN

JO/ss
Enclosure
cc w/encl.: Robert Marino (NYSDEC)
◆1167/JO11074.lm

JAN 26 1995

Director Corporate Environmental
Technology & Compliance

NGINS000116588

GRUMMAN AEROSPACE CORPORATION

**NEW YORK STATE
SITE REGISTRY DELISTING PETITION
SOUTH RUNWAY SITE
HICKSVILLE, NEW YORK**

**PREPARED BY
DVIRKA AND BARTILUCCI CONSULTING ENGINEERS
SYOSSET, NEW YORK**

JANUARY 1995

GRUMMAN AEROSPACE CORPORATION

**NEW YORK STATE
SITE REGISTRY DELISTING PETITION
SOUTH RUNWAY SITE
HICKSVILLE, NEW YORK**

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	INTRODUCTION	1-1
2.0	SITE EVALUATION.....	2-1
2.1	Site History	2-1
2.2	General Site Description	2-1
2.3	Hooker Chemical Site	2-3
3.0	GROUNDWATER SAMPLING DATA.....	3-1
4.0	CONCLUSIONS.....	4-1
5.0	REFERENCES	5-1

List of Appendices

Location Map.....	A
Site Plan	B
Aerial Photographs (1950-1988).....	C

List of Figures

3-1	Well Location Map.....	3-2
-----	------------------------	-----

TABLE OF CONTENTS (continued)

List of Tables

1-1	Delisting Petition Information.....	1-2
3-1	Groundwater Sampling - Volatile Organics and Glycol Scan.....	3-3
3-2	Groundwater Sampling - Priority Pollutant Metals	3-4

Section 1

1.0 INTRODUCTION

Grumman Aerospace Corporation has directed the preparation of this report as part of an effort to satisfy the requirements for delisting a portion of the airport runway at the Bethpage facility, hereafter referred to as "the site," from the New York State Site Registry of Inactive Hazardous Waste Disposal Sites (Site Code 1-30-003A). The site is located north of Central Avenue and west of Sheridan Avenue in Hicksville, New York. Information presented in this report has been compiled based upon a site inspection undertaken on September 9, 1994; an evaluation of available aerial photographs (1950-1988); along with interviews of various Grumman personnel. File searches conducted at Grumman Aerospace Corporation, the Nassau County Department of Health (NCDOH) and the Town of Oyster Bay did not reveal any relevant information of significance with regard to environmental conditions at the site. The purpose of this report is to determine and document the historical use of the site and the surrounding areas.

Section 2 of this document presents an evaluation of the site's history, present use and existing conditions, and the likelihood of potential adverse impacts from the federal Superfund site known as Hooker Chemical/Ruco Polymer. Section 3 presents an evaluation of analytical sampling data which characterizes groundwater quality in the vicinity of the site. The conclusions of the site assessment are presented in Section 4. A location map is included in Appendix A, a current "Site Plan" is included in Appendix B, and aerial photographs of the site from 1950 through 1988 have been included in Appendix C.

Correspondence from the New York State Department of Environmental Conservation (NYSDEC) to the Grumman Aerospace Corporation provided a list of the "Delisting Petition Information" required for the Grumman properties. In order to facilitate the review of this document, the 14 items requested in the NYSDEC correspondence are listed on Table 1-1 with an appropriate response, or a cross reference to the location of such response in this document. The information supplied in this document is of sufficient detail to enable the NYSDEC to determine the nature of the past and present operations of the site, and assess the potential for any on-site contamination.

Table 1-1

DELISTING PETITION INFORMATION

<u>Requirement</u>	<u>Response</u>
1. Site Name	Grumman, Bethpage
Owner	Grumman Aerospace Corporation
2. Site Number	1-30-003A
3. Site Location	North of Central Avenue and West of Sheridan Avenue, Hicksville, Nassau County, NY 11801
4. Size	Approximately 15 Acres
5. Boundaries	See Appendices A, B and C
6. Nature of Operation	See Sections 2.1 and 2.2
Hazardous Waste Disposal	See Section 4
7. History of Site	See Section 2.1
8. History of Site Investigations	See Section 2.1 and 3
9. Waste	See Section 2.2
10. Affected Resources	See Sections 2.2, 3 and 4
11. Demographic Information	See Section 2.2
12. Geographic Information	See Section 2.2
13. Cleanup Actions	See Section 4
14. Basis for Delisting	See Section 4

Section 2

2.0 SITE EVALUATION

Location: North of Central Avenue and West of Sheridan Avenue
Hicksville, New York 11801

Section:	46	Land Use(s):	Runway/Heliport
Block:	323	Plot Size:	Approximately 15 acres
Lot:	Portion of 17E	Grumman Building:	N/A
Zoning:	Industrial H	Building Area:	N/A

2.1 Site History

As indicated by a review of the earliest available aerial photograph of the site taken in 1950 (See Appendix C), the runway was in existence at that date and the majority of the site appears to be representative of the site's current configuration. Based upon a review of aerial photographs of the site taken from 1950 through 1988, no significant on-site changes were noted. A September 9, 1994 site inspection did not identify any apparent on-site changes since the date of the 1988 aerial photograph. Interviews with Grumman Aerospace Corporation personnel indicated that all aircraft maintenance and deicing procedures took place off the South Runway site. It should be noted that glycols were not detected above the method detection limits in a downgradient groundwater monitoring well (see Section 3.0). Interviews with Grumman personnel indicated that the runway was "closed" in August 1990 and, since that time, the runway has been and continues to be utilized by Nassau County in support of county police helicopter operations.

2.2 General Site Description

The site is currently owned by Grumman Aerospace Corporation, and the runway is utilized by Nassau County in support of county police helicopter operations. The entire site is zoned Industrial H and comprises approximately 15 acres. The site is at the southern portion of the

Grumman Bethpage facility with commercial development and areas of high density residential development existing to the west, east and south. A Site Plan is presented in Appendix B.

According to interviews with Grumman personnel, a review of agency files and Grumman records, there is no apparent evidence of the past or present existence of any on-site structures other than a small "Explosives Mag" shed which was a remote storage facility for class "C" pyrotechnical line explosives until the early 1980's. Based upon interviews with representative of Grumman Aerospace corporation, these explosives were utilized in applications of aircraft canopy ejections. Based upon a review of available aerial photographs and interviews with Grumman personnel, this structure was removed in the late 1980s. Based upon a review of available information, there is no apparent evidence of the past or present existence of any on-site storage tanks or leaching pools (other than those associated with stormwater drainage). No areas of stressed vegetation were observed during the September 9, 1994 site inspection.

The site is generally level with topography gradually sloping away from the runway to facilitate drainage. Catch basins utilized for storm water runoff are located throughout the site and a series of storm water recharge basins are located parallel to the southern boundary of the site. The Soil Conservation Service classifies the runway (approximately 60 percent of the site) as Urban Land with surrounding areas of Udipsaments (nearly level). Urban Land is defined as an area with at least 85 percent asphalt, concrete, or other impervious building material, with most of the remaining small areas of soil being well drained Riverhead, Hempstead, or Enfield soils, or excessively drained Udipsaments. Udipsaments (nearly level) are defined as manmade fills or borrow areas, most of which are grass-covered with slopes of 0 to 3 percent, which consists of very deep soils that are excessively drained to well drained. Based on measurements obtained from nearby groundwater monitoring wells, the depth from ground surface to the upper glacial aquifer is approximately 45 feet.

2.3 Hooker Chemical Site

An element related to the delisting of the site is the proximity of the property to the Hooker Chemical/Ruco Polymer NPL site. This site has been on the federal Superfund list since 1984 and remains active. The site has been the subject of monitoring and investigations intended to identify the extent of contamination and hazard resulting from previous waste disposal practices at this site.

A Remedial Investigation and Feasibility Study (RI/FS) has been conducted, with the associated field work completed in February 1990. The RI/FS identified two operable units at the Hooker Chemical site requiring remedial action.

Operable Unit 1 has necessitated the remediation of soil and groundwater contaminated by volatile organic compounds (VOCs) used in the various manufacturing processes employed by the facilities on-site. Based upon communication with the EPA, the RI report was approved on December 7, 1992. The associated Feasibility Study was subsequently completed and a Record of Decision on a Proposed Remedial Action Plan was signed on January 28, 1994. Based upon recent communication with the EPA, a unilateral administrative order is currently being drafted to address Operable Unit 1.

Operable Unit 2 pertains to a relatively small area of soil contaminated by PCBs resulting from releases of the heat transfer fluid Therminol. The migration of PCBs from the on-site structure referred to as the "Pilot Plant" to other portions of the site was enhanced by storm water runoff and on-site truck traffic. However, the extent of contaminated soil is contained entirely on the Hooker Chemical/Ruco Polymer site. No off-site contamination has been identified from Operable Unit 2. Remedial action involving Operable Unit 2 has been completed.

Until such time as the EPA finalizes its review of all investigation findings and releases details concerning Operable Unit 1, it is not possible to fully characterize the extent of any potential off-site impacts. However, the South Runway site is located over 1 mile to the southeast of the Hooker Chemical/Ruco Polymer site, and is likely removed from any significant adverse conditions which may be present.

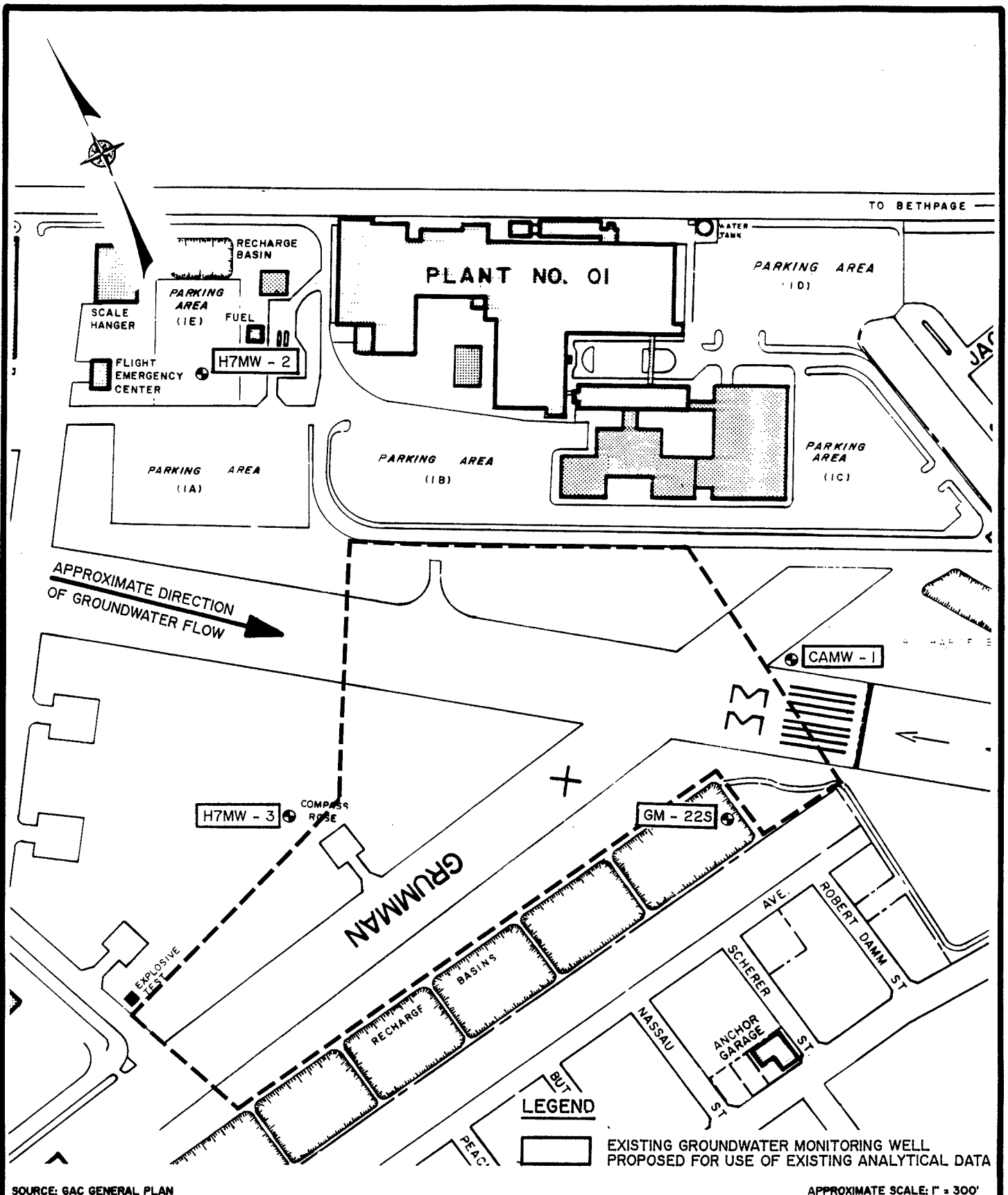
Section 3

3.0 GROUNDWATER SAMPLING DATA

Based upon a review of available monitoring well location maps, two upgradient groundwater monitoring wells (H7MW-2 and H7MW-3) and two downgradient groundwater monitoring wells (GM-22S and CAMW-1) were identified. Existing analytical sampling data from these wells were utilized to characterize groundwater quality in the vicinity of the site. Figure 3-1 presents the locations of these monitoring wells. The results of the volatile organic and priority pollutant metal analyses are compared to the New York State Department of Health (NYSDOH) drinking water standards on Tables 3-1 and 3-2, respectively.

As indicated on Table 3-1, volatile organics were not detected above the NYSDOH drinking water standards. As also indicated on Table 3-1, glycols were not detected above the method detection limits in downgradient monitoring well CAMW-1.

As indicated on Table 3-2, several priority pollutant metals were detected in the groundwater samples obtained from the monitoring wells associated with the site. The only priority pollutant metal detected above the NYSDOH standard was cadmium in sample GM-22S. However, it should be noted that this sample could not be obtained at a turbidity of less than 50 NTUs. As a result, an additional filtered groundwater sample was collected from this location in an effort to remove soil particles prior to laboratory analysis. As indicated on Table 3-2, cadmium was not detected above the NYSDOH drinking water standard in the filtered sample from GM-22S. It is also important to note that GM-22S is located adjacent to an off-site storm water recharge basin. As a result, stormwater runoff may cause localized adverse impacts to groundwater quality in the vicinity of this well. The presence of cadmium is not inconsistent with studies that have been conducted by the United States Environmental Protection Agency in support of the National Urban Runoff Program, indicating that cadmium among other inorganic constituents are typically detected in urban stormwater runoff.



SOURCE: GAC GENERAL PLAN

APPROXIMATE SCALE: 1" = 300'

GRUMMAN AEROSPACE CORPORATION
 BETHPAGE FACILITY
 SOUTH RUNWAY

WELL LOCATION MAP



Dvirka and Bartilucci
 Consulting Engineers
 A Division of William F. Cosulich Associates, P.C.

FIGURE 3 - 1

TABLE 3-1
GRUMMAN AEROSPACE CORPORATION
SOUTH RUNWAY
GROUNDWATER SAMPLING
VOLATILE ORGANICS AND GLYCOL SCAN

LOCATION	UPGRADIENT	UPGRADIENT	UPGRADIENT	DOWNGRADIENT	DOWNGRADIENT	DOWNGRADIENT	NYSDOH DRINKING WATER STANDARD
SAMPLE ID	H7MW-2	H7MW-3	GM-22S	CAMW-1			
DATE COLLECTED	03/23/93	03/23/93	08/26/93	2/16/94			
DILUTION FACTOR	1	1	1	1			
VOLATILE ORGANICS (ug/l)							
Chloromethane	U	U	U	U			5
Bromomethane	U	U	U	U			5
Vinyl Chloride	U	U	U	U			2
Chloroethane	U	U	U	U			5
Methylene Chloride	1 B	2 B	U	U			5
Acetone	8 B	33 B	U	U			---
Carbon Disulfide	U	U	U	U			---
1,1-Dichloroethene	U	U	U	U			5
1,1-Dichloroethane	U	U	U	U			5
1,2-Dichloroethene (total)	U	U	U	U			5
Chloroform	U	U	U	U			100**
1,2-Dichloroethane	U	U	U	U			5
2-Butanone	U	1	U	U			---
1,1,1-Trichloroethane	2	U	U	U			5
Carbon Tetrachloride	U	U	U	U			5
Bromodichloromethane	U	U	U	U			5
1,2-Dichloropropane	U	U	U	U			5
cis-1,3-Dichloropropene	U	U	U	U			5
Trichloroethene	U	3	U	U			5
Dibromochloromethane	U	U	U	U			100**
1,1,2-Trichloroethane	U	U	U	U			5
Benzene	U	U	U	U			5
Trans-1,3-Dichloropropene	U	U	U	U			5
Bromoform	U	U	U	U			100**
4-Methyl-2-pentanone	U	U	U	U			---
2-Hexanone	U	U	U	U			---
Tetrachloroethene	U	U	U	U			5
1,1,2,2-Tetrachloroethane	U	2	U	U			5
Toluene	U	U	U	U			5
Chlorobenzene	U	U	U	U			5
Ethylbenzene	U	U	U	U			5
Styrene	U	U	U	U			5
Xylene (total)	U	U	U	U			5
GLYCOL SCAN							
Propylene Glycol	NR	NR	NR	NR			---
Ethylene Glycol	NR	NR	NR	NR			---

NOTE:
 U: Analyzed for but not detected
 B: Compound found in the blank as well as the sample
 J: Compound found at a concentration below the CRDL, value estimated
 ** : Applies to the sum of trihalomethanes
 --- : Not established
 NR: Not Requested

**TABLE 3-2
GRUMMAN AEROSPACE CORPORATION
SOUTH RUNWAY
GROUNDWATER SAMPLING
PRIORITY POLLUTANT METALS**

LOCATION SAMPLE ID	UP GRADIENT H7MW-2	UP GRADIENT H7MW-3	DOWNGRADIENT GM-22S	DOWNGRADIENT GM-22S F	DOWNGRADIENT CAMW-1	DOWNGRADIENT CAMW-1 F	NYSDOH DRINKING WATER STANDARDS
UNITS	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
PARAMETER							
Antimony	U	65.5	U	U	U	U	---
Arsenic	U	U	2.6 B	U	U	U	50
Beryllium	U	U	U	U	U	1.5 B	---
Cadmium	U	U	6.9	4.1 B	U	U	5
Chromium	U	7.3 B	31.6	11.9	12.5	U	100
Copper	9.9 B	9.9 B	39.5	5.3 B	U	U	1000
Lead	U	U	13.6	U	U	U	50
Mercury	U	U	U	U	U	U	2
Nickel	U	U	11.7 B	U	U	U	---
Selenium	U	U	U	U	U	U	10
Silver	U	17.7	9.8 B	U	U	U	50
Thallium	U	U	U	U	U	U	---
Zinc	19.6 B	6.5 B	57.7	26.3	10.7 B	U	5000

QUALIFIERS:

U: Analyzed for but not detected
 B: Value less than contract required
 detection limits but greater than
 instrument detection limits.

NOTES

F: Filtered sample
 ---: Not established
 : Value exceeds standard

Section 4

4.0 CONCLUSIONS

Based on the September 9, 1994 site inspection and a review of local agency and Grumman files, it does not appear that on-site operations have resulted in any chemical and/or fuel spills on-site. Furthermore, an evaluation of groundwater sampling results from both upgradient and downgradient monitoring wells revealed that volatile organics were not detected above the referenced NYSDOH drinking water standards. In addition, glycols were not detected above the method detection limits in downgradient monitoring well CAMW-1. With regard to priority pollutant metals, other than cadmium which was detected in monitoring well GM-22S, priority pollutant metals were not detected above the referenced NYSDOH drinking water standards. The cadmium detected in monitoring well GM-22S was shown to be attributable to elevated turbidity and may be associated with localized adverse impacts from an adjacent off-site stormwater recharge basin.

As a result, based upon the above referenced findings, we believe that the information presented in this document is sufficient to support the delisting of the site under New York State regulations and, as such, an appropriate modification to the boundaries of Site 1-30-003A is warranted.

Section 5

5.0 REFERENCES

Dvirka and Bartilucci Consulting Engineers; "Sterling Center - Draft Generic Environmental Impact Statement - Volume 1A;" June 1990.

EBASCO, Final Work Plan RI/FS Hooker Chemical/Ruco Polymer Superfund Site, EPA Contract 68-01-7250, Work Assignment No. 186-2443, September 1988.

Legette, Brashear & Graham, Final Field Operations Plan, August 1989.

Legette, Brashear & Graham, Focused Feasibility Study for Remediation of Soils Containing Arochlor 1248 for Occidental Chemical Corp., June 1990.

LKB Aerial Photographs: April 11, 1950; January 20, 1955; January 24, 1957; March 23, 1962; April 11, 1969; April 18, 1972; March 8, 1988.

United States Department of Agriculture, Soil Conservation Service, Soil Survey of Nassau County, New York, February 1987.

USEPA, Declaration for Record of Decision, Hooker Chemical/Ruco Polymer Site, Hicksville, Nassau County, New York, September 1990.

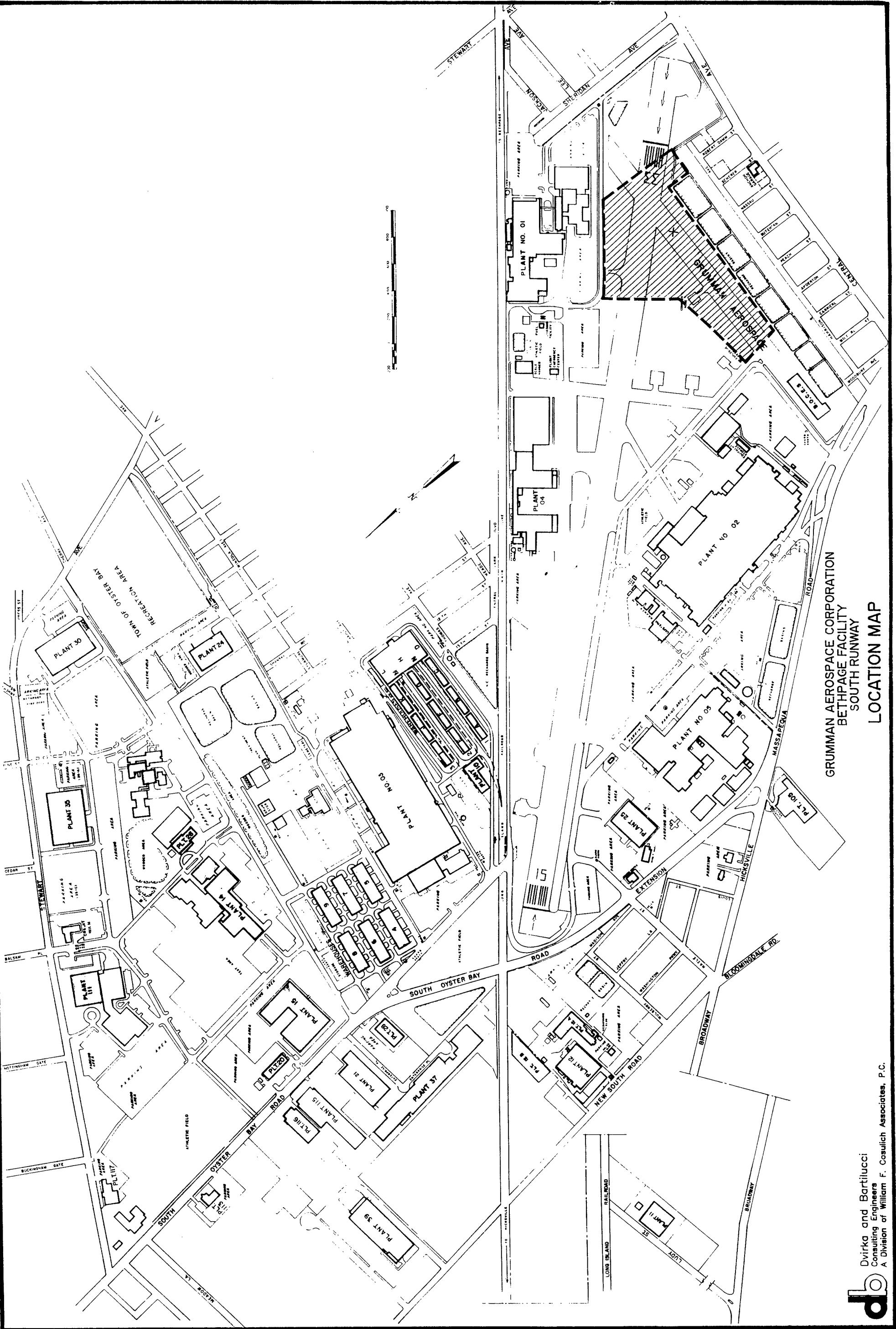
USEPA - Region 2, Proposed Plan Superfund Update Hooker Chemical/Ruco Polymer Site, Hicksville, New York, July 1990.

USEPA - Region II, Record of Decision (Operable Unit 1), Hooker Chemical/Ruco Polymer Site, Town of Oyster Bay, Nassau County, New York, January 1994.

Appendix A

APPENDIX A

LOCATION MAP



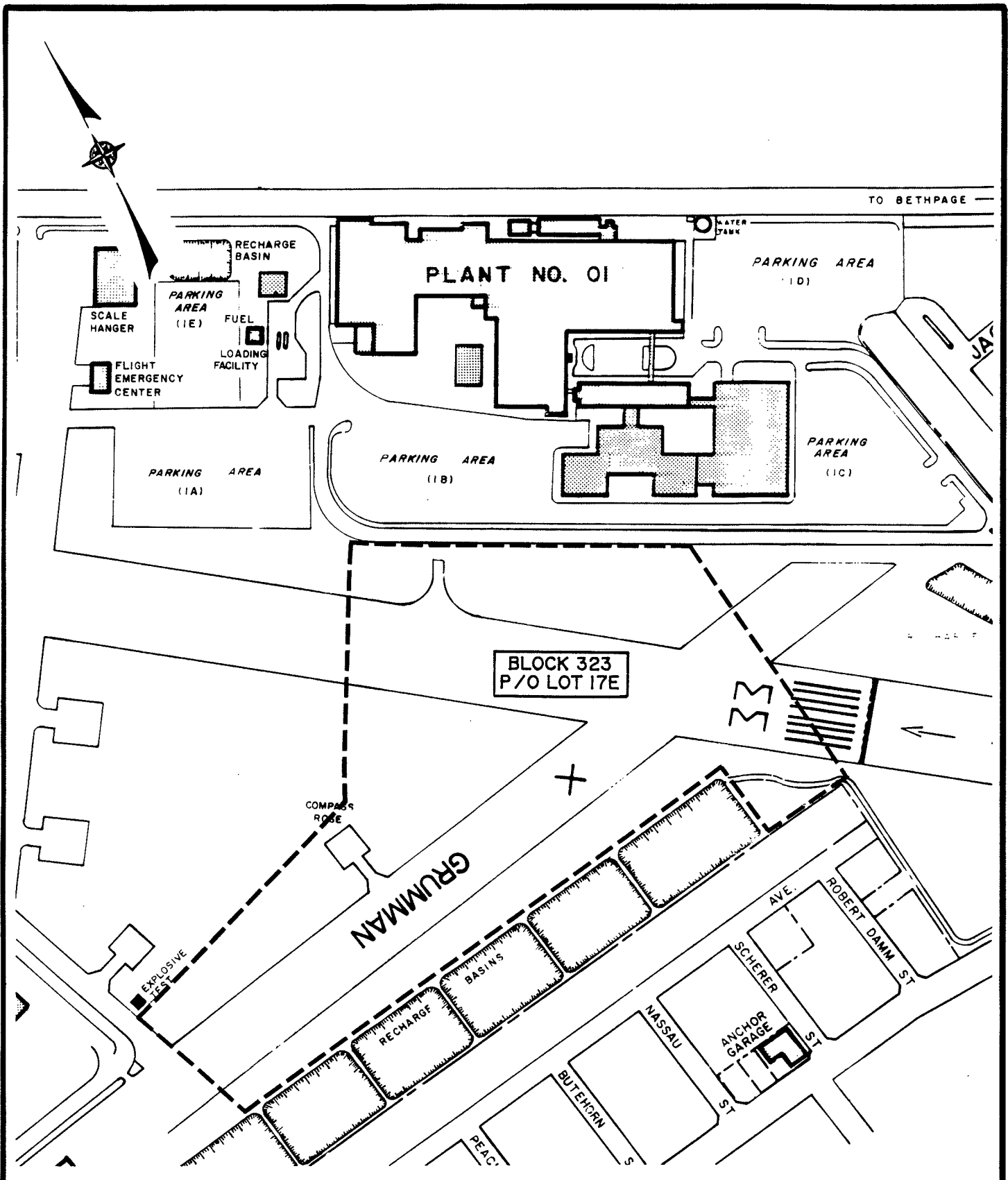
GRUMMAN AEROSPACE CORPORATION
 BETHPAGE FACILITY
 SOUTH RUNWAY
 LOCATION MAP

db Dvirka and Bartilucci
 Consulting Engineers
 A Division of William F. Cosulich Associates, P.C.

Appendix B

APPENDIX B

SITE PLAN



TO BETHPAGE

PLANT NO. 01

PARKING AREA (D)

SCALE HANGER

PARKING AREA (IE)

FUEL

LOADING FACILITY

FLIGHT EMERGENCY CENTER

PARKING AREA (IA)

PARKING AREA (IB)

PARKING AREA (IC)

BLOCK 323
P/O LOT 17E

COMPASS ROSE

GRUMMAN

EXPLOSIVE TEST

RECHARGE BASINS

AVE.

ROBERT DAMM ST

SCHERER ST

ANCHOR GARAGE

NASSAU ST

BUTEHORN ST

PEAC ST

SOURCE: GAC GENERAL PLAN

APPROXIMATE SCALE: 1" = 300'

GRUMMAN AEROSPACE CORPORATION
BETHPAGE FACILITY
SOUTH RUNWAY

SITE PLAN



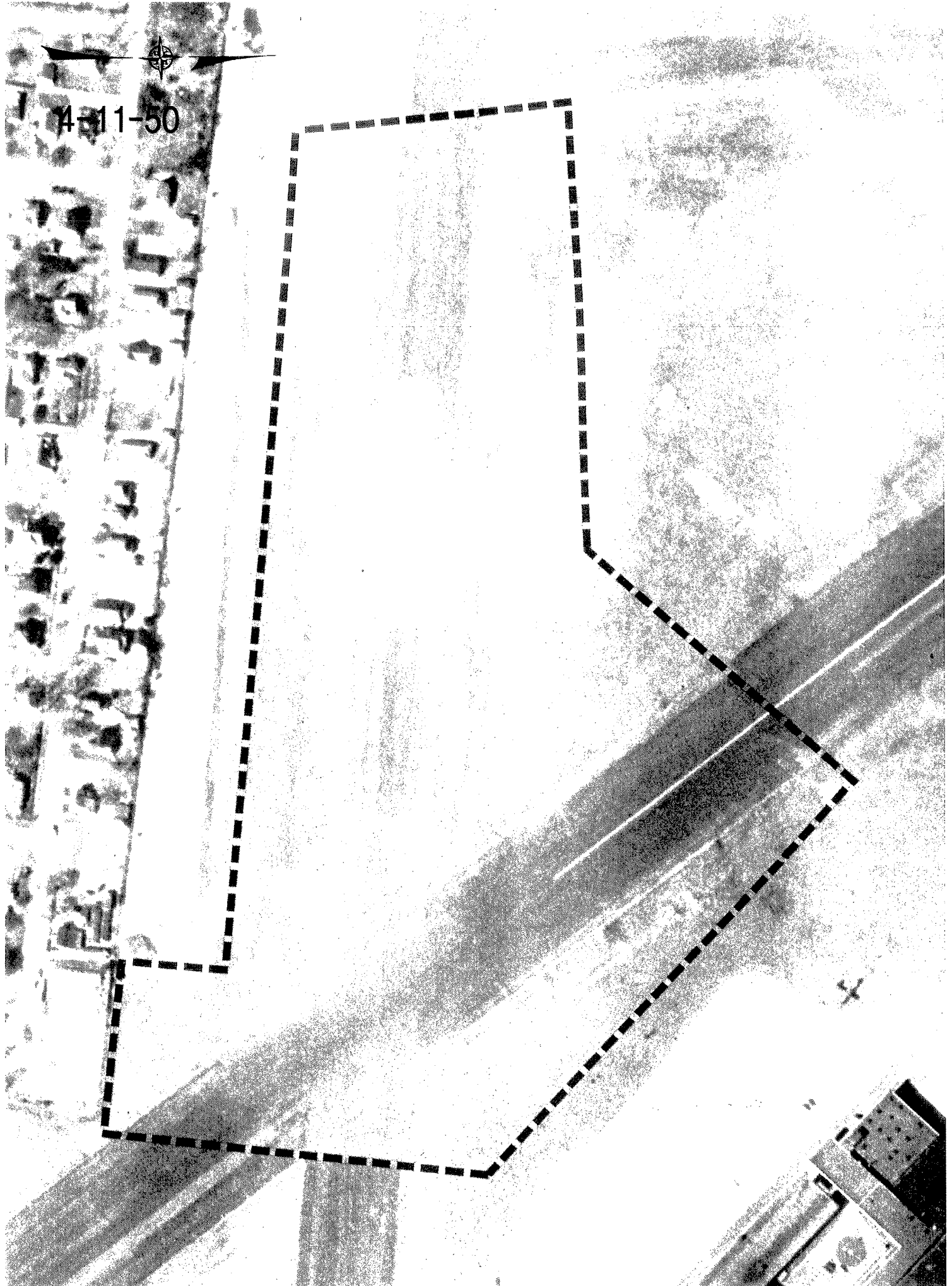
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Appendix C

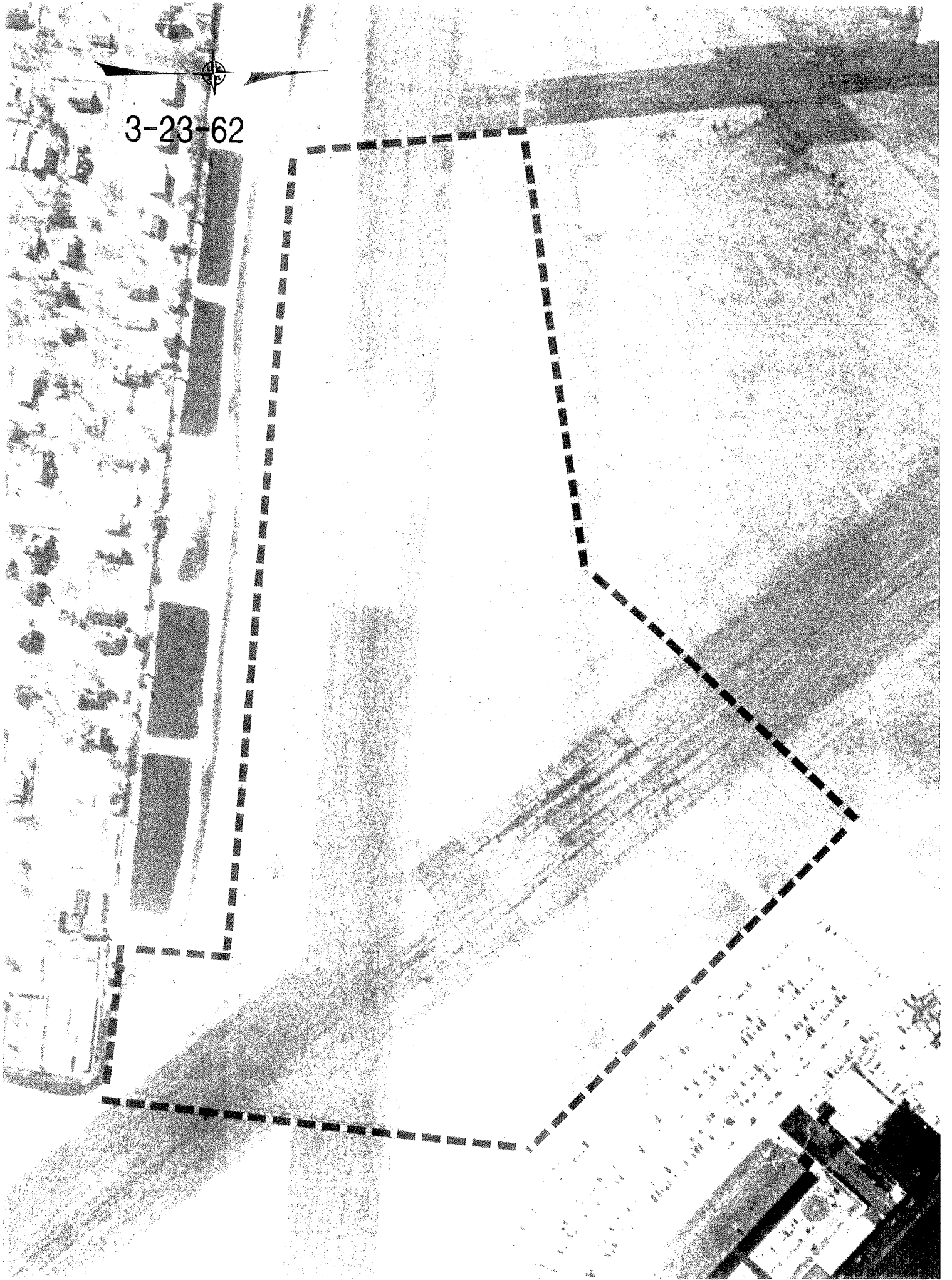
APPENDIX C

AERIAL PHOTOGRAPHS (1950-1988)

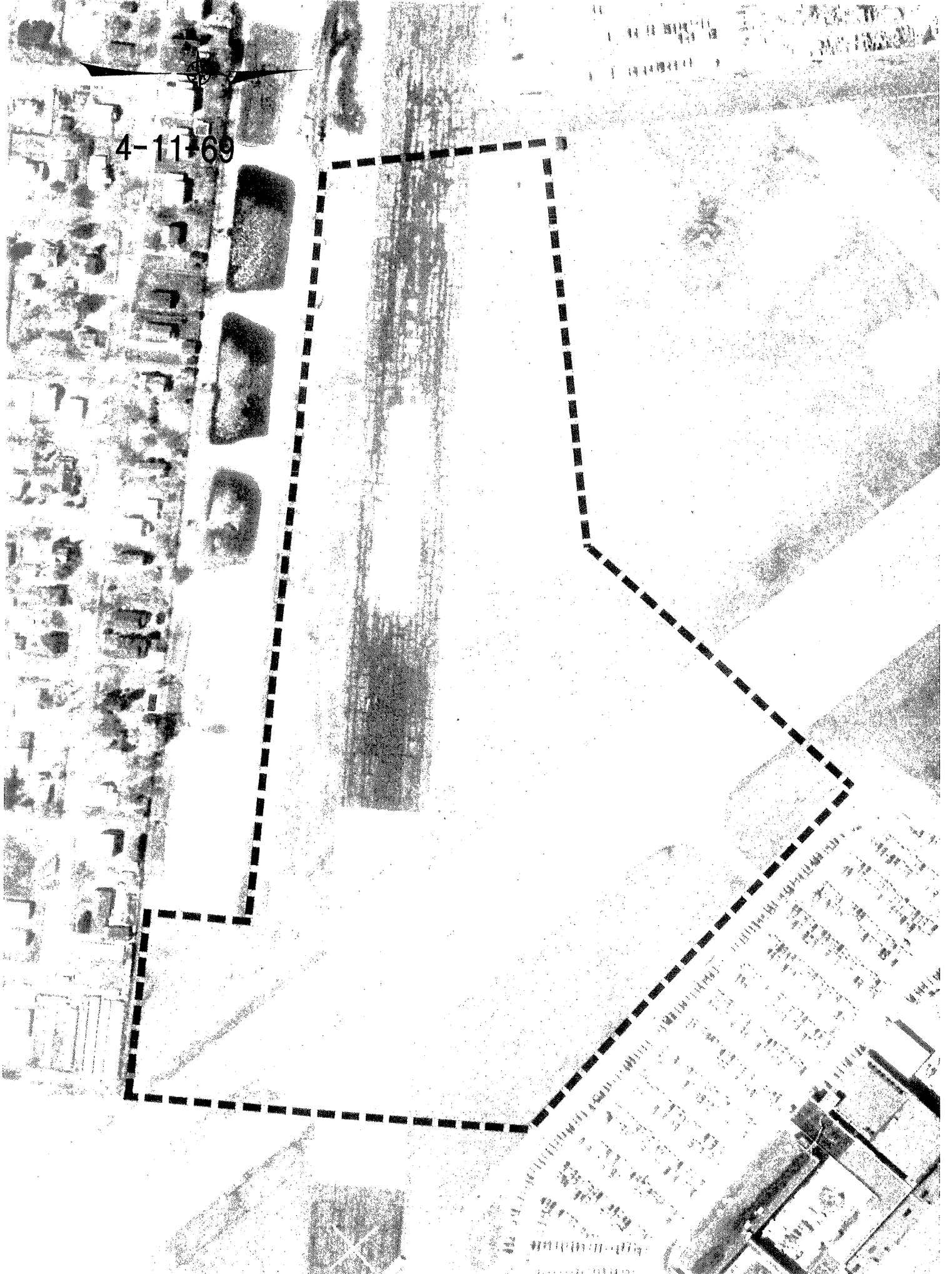
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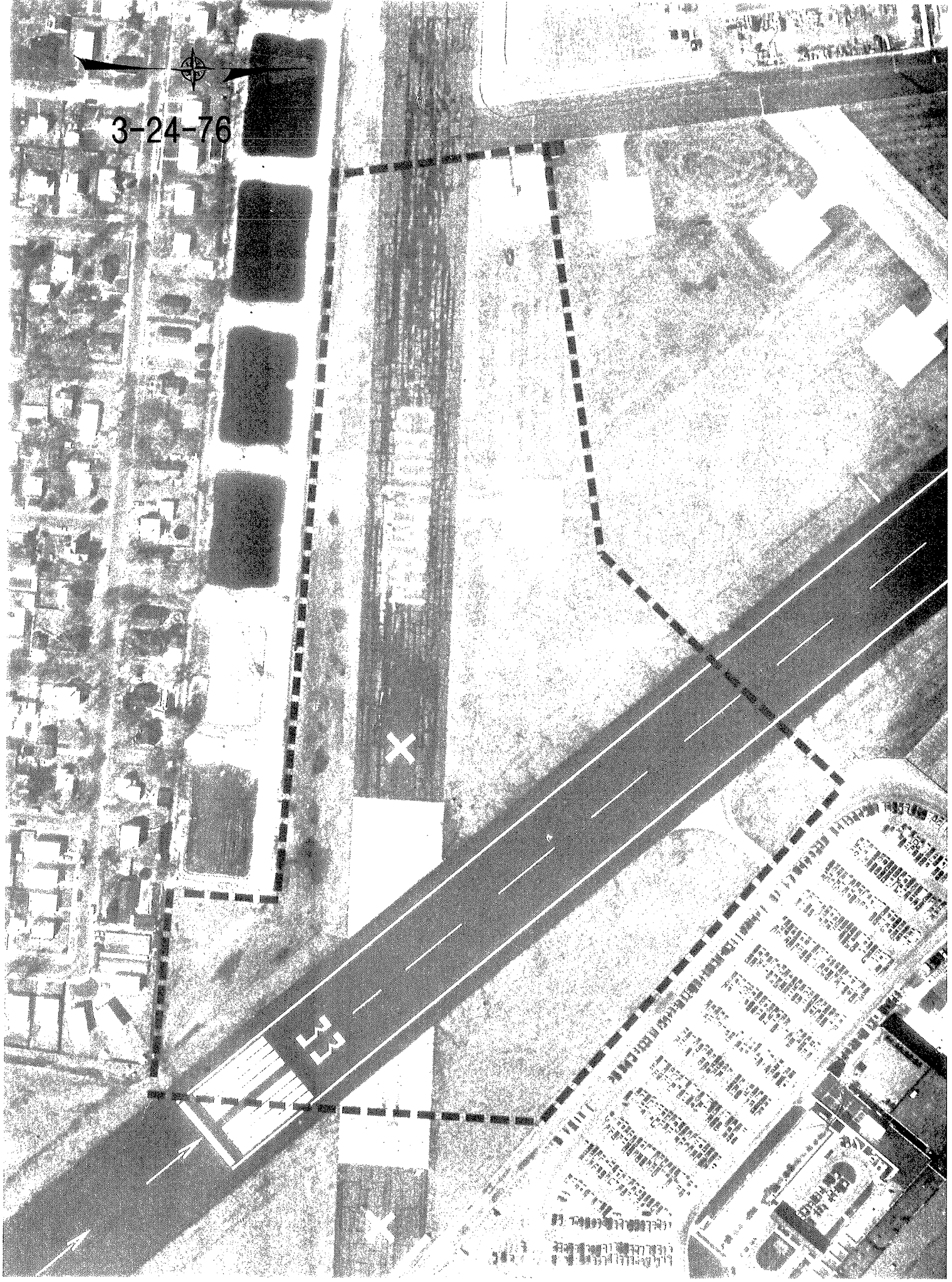
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4-11-69



3-24-76



3-8-88

