

TP-00061

TP-00061

NOAA FORM 76-35 (3-76)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
FIELD EDITED MAP	
Map No. TP-00061	Edition No. 1
Job No. PH-6905	
Map Classification FINAL	
Type of Survey SHORELINE	
LOCALITY	
State DELAWARE	
General Locality DELAWARE BAY	
Locality BROADKILL RIVER	
1969 TO 1971	
REGISTRY IN ARCHIVES	
DATE	

MAP NOT INSPECTED BY
QUALITY CONTROL OF PHOTOGRAMMETRY DIVISION
PRIOR TO REGISTRATION

1 of 19

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Division Atlantic Marine Center, Norfolk, VA		SURVEY TF. <u>00061</u> MAP EDITION NO. (1) MAP CLASS Final JOB PH-6905	
OFFICER-IN-CHARGE Roy K. Matsushige, CDR		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
JOB PH- MAP CLASS SURVEY DATES: 19__ TO 19__		JOB PH- MAP CLASS SURVEY DATES: 19__ TO 19__	

I. INSTRUCTIONS DATED	
1. OFFICE	2. FIELD
Aerotriangulation December 10, 1969 Compilation May 12, 1969 Amendment 1 April 1, 1971 Memo (Cancel field edit) December 14, 1979 Memo (Completion Schedule) June 22, 1981	Field September 26, 1969 Amendment 1 October 7, 1969

II. DATUMS	
1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN	OTHER (Specify)
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER <input checked="" type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL	OTHER (Specify)
3. MAP PROJECTION Polyconic	4. GRID(S) STATE Delaware ZONE STATE ZONE
5. SCALE 1:10,000	STATE ZONE

III. HISTORY OF OFFICE OPERATIONS		
OPERATIONS	NAME	DATE
1. AEROTRIANGULATION BY METHOD: <u>Analytic</u> LANDMARKS AND AIDS BY	D. O. Norman	April 1970
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: <u>Coradomat</u> CHECKED BY	J. Dempsey	April 1970
	F. Homick	April 1970
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY	A. L. Shands	May 1970
INSTRUMENT: <u>Wild B-8</u> CONTOURS BY	L. O. Neterer, Jr.	May 1970
SCALE: <u>1:10,000</u> CHECKED BY	NA	
	NA	
4. MANUSCRIPT DELINEATION PLANIMETRY BY	R. R. White	June 1970
	R. J. Pate	June 1970
METHOD: <u>Smooth Drafted</u> CONTOURS BY	NA	
	NA	
SCALE: <u>1:10,000</u> HYDRO SUPPORT DATA BY	R. R. White	June 1970
	R. J. Pate	June 1970
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	R. J. Pate	June 1970
	A. L. Shands	April 1972
6. APPLICATION OF FIELD EDIT DATA CHECKED BY	S. S. Kumer	Dec. 1972
7. COMPILATION SECTION REVIEW BY	S. S. Kumer	Dec. 1972
8. FINAL REVIEW BY	L. O. Neterer, Jr.	Jan. 1982
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY	L. O. Neterer, Jr.	May 1982
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		
11. MAP REGISTERED - COASTAL SURVEY SECTION BY	H. D. Wolfe	MAR 10 1983

NOAA FORM 76-36B (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY			
TP-00061 COMPILATION SOURCES					
1. COMPILATION PHOTOGRAPHY					
CAMERA(S) Wild RC-9 "M" Wild RC-8-"E" and "K"		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR X (P) PANCHROMATIC (I) INFRARED X		TIME REFERENCE ZONE Eastern MERIDIAN 75th	
TIDE STAGE REFERENCE <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input checked="" type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
+ 69E(C) 2896 thru 2899	23 Oct 1969	13:33	1:20,000	0.0 ft. at MLW	
*x 69E(C) 3056 thru 3058	24 Oct 1969	11:04	1:40,000	2.7 ft. above MLW	
*+ 69K(I) 4472 thru 4476	23 Oct. 1969	13:33	1:20,000	0.0 ft. at MLW	
*+ 69K(I) 4669 thru 4672	26 Oct. 1969	10:50	1:20,000	4.4 ft. above MLW	
Camera focal length: E = 152.71 mm, K = 151.77 mm, M = 88.20 mm					
REMARKS *Centers not shown on manuscript +Tide coordinated photography xBridging photography used in the Wild B-8 stereoplotter					
2. SOURCE OF MEAN HIGH-WATER LINE: The mean high-water line was compiled from the above listed tide coordinated infrared mean high-water photography.					
3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE: The mean low-water line was compiled from the above listed tide coordinated infrared mean low-water photography.					
4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)					
SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED
5. FINAL JUNCTIONS					
NORTH TP-00060	EAST TP-00062	SOUTH No Survey	WEST No Survey		
REMARKS					

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TP-00061

HISTORY OF FIELD OPERATIONS

- 1.
- ☒
- FIELD INSPECTION OPERATION (Premarking)
- ☐
- FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. K. Wilson	1969
2. HORIZONTAL CONTROL	RECOVERED BY None	
	ESTABLISHED BY None	
	PRE-MARKED OR IDENTIFIED BY None	
3. VERTICAL CONTROL	RECOVERED BY NA	
	ESTABLISHED BY NA	
	PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

NA

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES:
- ☐
- REPORT
- ☒
- NONE

6. BOUNDARY AND LIMITS:
- ☐
- REPORT
- ☒
- NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

1 - form C & GS 524

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYTP-00061
HISTORY OF FIELD OPERATIONSI. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. K. Wilson	July 1971
2. HORIZONTAL CONTROL	RECOVERED BY None ESTABLISHED BY None PRE-MARKED OR IDENTIFIED BY None	
3. VERTICAL CONTROL	RECOVERED BY NA ESTABLISHED BY NA PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY None LOCATED (Field Methods) BY None IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input checked="" type="checkbox"/> SPECIFIC NAMES ONLY BY <input type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY R. Tibbetts	July 1971
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY None	July 1971

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

NA

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

69E(C) 2898-2900, 2897

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

- 1 - field edit ozalid
- 1 - field edit report

NOAA FORM 76-36D
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATIONTP-00061
RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation Complete pending field edit	June 1970	Class III Superseded	June 22, 1970	June 22, 1970
Field edit applied Compilation complete	March 1972	Class I Manuscript		
Final Review	Jan. 1982	Final		

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
<u>1</u> <u>form</u>		<u>Nov 1982</u>	Appropriate forms (76-40) are attached with this descriptive report.

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

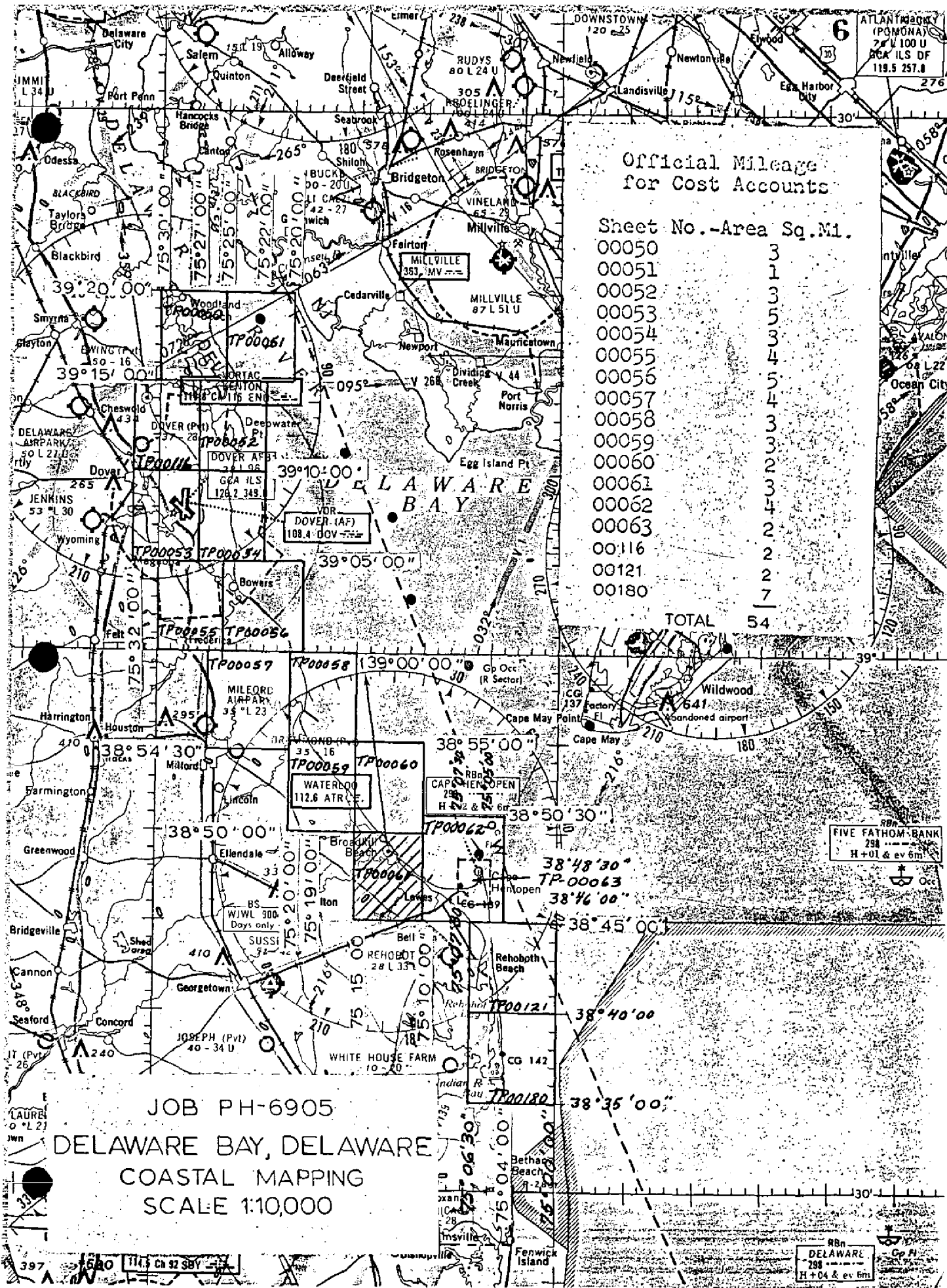
1. ☐ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS. ⁷⁶⁻⁴⁰ ~~587~~ SUBMITTED BY FIELD PARTIES.
 3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
 ACCOUNT FOR EXCEPTIONS: 1 form C-65 527

Duplicate copies of final 76-40 forms

- 4.
- ☒
- DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED:
- Nov 1982

IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	



Official Mileage
for Cost Accounts

Sheet No.-Area Sq.Mi.

00050	3
00051	1
00052	3
00053	5
00054	3
00055	4
00056	5
00057	4
00058	3
00059	3
00060	2
00061	3
00062	4
00063	2
00116	2
00121	2
00180	7

TOTAL 54

JOB PH-6905
DELAWARE BAY, DELAWARE
COASTAL MAPPING
SCALE 1:10,000

FIVE FATHOM BANK
298
H+01 & ev 6m

DELAWARE
298
H+04 & ev 6m

7

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-00061

This 1:10,000 scale shoreline manuscript is one of seventeen maps that comprise project PH-6905, Delaware Bay, Delaware. The project encompasses the western part of Delaware Bay from Woodland Beach, latitude 39°20', south to Indian River, latitude 38°35'.

Correspondence, from the Chief of Photogrammetry, dated December 14, 1979, called for the cancellation of field edit on TP-00050 through TP-00058 and TP-00116. These Maps will be registered as Final Class III maps. Maps TP-00059 through TP-00063, TP-00121 and TP-00180 were field edited and are to be registered as Final maps.

The purpose of the project was to provide shoreline data in support of hydrographic operations and to aid in nautical chart revision.

Field work prior to compilation was accomplished in October 1969. This involved the identification of horizontal control by premarking methods in order to meet aerotriangulation control requirements.

Photographic coverage was provided in October 1969 for aerotriangulation using Panchromatic film in the "M" camera at 1:80,000 scale. Compilation photography was taken using color film in the "E" camera at 1:20,000 scale.

Tide coordinated infrared high and low water photography was taken using the "K" camera. The low water infrared photography was taken in tandem with the hydro support photography.

Analytic aerotriangulation was performed at the Washington Science Center in April 1970.

Compilation was performed from office interpretation of the 1969 photography. Preparation of hydrographic support photography was done at the Atlantic Marine Center and submitted to the field in June 1970.

Field Edit was completed in August 1971.

Field Edit was applied and completed in December 1972. The final review was performed at the Atlantic Marine Center in January 1982.

This descriptive report contains all pertinent information used to compile this final map.

The original base manuscript and all pertinent data was forwarded to the Washington Science Center for final registration.

FIELD INSPECTION

TP-00061

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification of the horizontal control necessary for the aerotriangulation of the project.

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Photogrammetric Plot Report
PH-6905
Delaware Bay

April 3, 1970

21. Area Covered

The area covered in this project is the southwest shore of Delaware Bay. The manuscripts are TP-50 through TP-62 and TP-116 at 1:10,000 scale and TP-63 at 1:5,000 scale.

22. Method

Two strips of 1:80,000 scale panchromatic photography and one strip of 1:30,000 scale color photography were bridged by analytic aerotriangulation methods. Points were selected on the 1:80,000 scale photography common to the 1:40,000 and 1:20,000 scales to be used for compilation of the 1:10,000 scale manuscripts and as an aid during hydrography. Similarly, the 1:30,000 scale bridging photography was used to control the 1:10,000 scale photography for compilation of the 1:5,000 scale manuscript. Attached are sketches showing strips bridged and legend with fit to control.

23. Adequacy of Control

The horizontal control was adequate. Nevertheless, the following discrepancy should be noted: a substitute station was established for LEWES COAST GUARD LIFE SAVING STATION MAST, 1962 which appears in two strips. A discrepancy of 6.5 degrees in azimuth was found between the two azimuth stations from which angles were turned to the substitute station. When the position was computed using the azimuth from Delaware Breakwater West End Light, 1933 the discrepancy in both strips was approximately 13 feet. When the position was computed using the azimuth from LEWES WEST OIL FACTORY CHIMNEY, 1962 the fit to control was excellent. This latter position is evidently correct. No reason could be found for the discrepancy.

24. Supplemental Data

Elevations were taken from USGS topographic quadrangles to meet the vertical control requirements.

-2-

25. Photography

The photography was adequate.

Respectfully submitted,

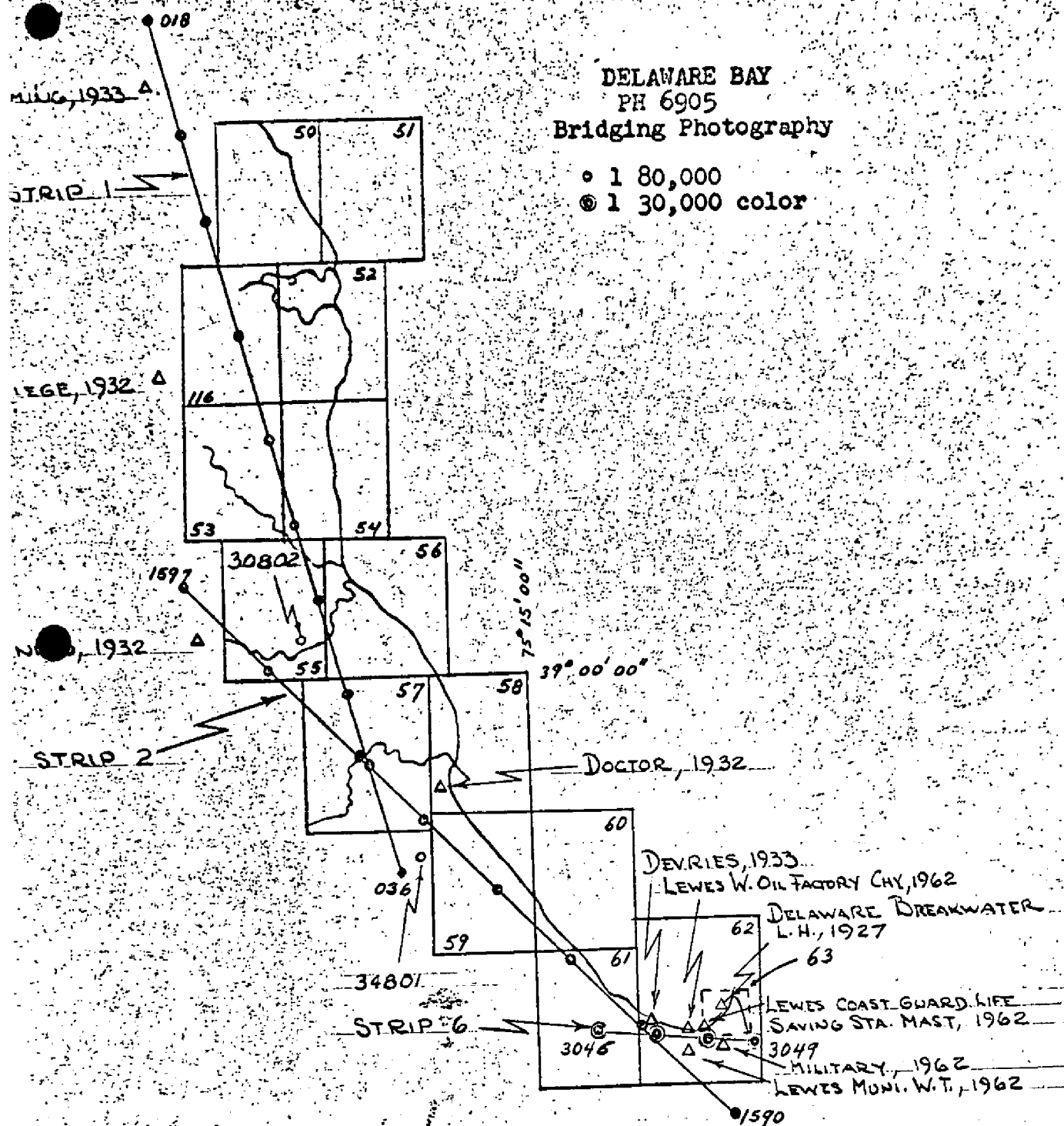
Don O. Norman

Don O. Norman

Approved and Forwarded,

Henry P. Eichert

Henry P. Eichert, Chief
Aerotriangulation Section



LEGEND



CONTROL USED IN ADJUSTMENT

CLOSURES OF BRIDGE TO CONTROL SHOWN
IN PARENTHESIS

CONTROL USED AS CHECK

STRIP 1

- ▲ FLEMING, 1933 SUB. A (-40, +1.06)
- ▲ COLLEGE, 1932 RM 2 SUB. A (+2.20, -2.51)
- ▲ 30802 TIE POINT
- △ UNION STA. A (-6.36, +2.28)
- △ DOCTOR, 1932 RM 6 (-4.83, +6.75)
- ▲ 34901 TIE POINT (+1.92, -.57)

STRIP 2

- △ MILITARY, 1962 SUB. A (+.56, +1.26)
- MILITARY, 1962 SUB. B (0.0, 0.0)
- △ LEWES COAST GUARD LIFE SAVING STA. SUB. A (-96, -.77)
- △ DEVRIES, 1962 RM (+1.66, -1.83)
- △ DEVRIES, 1933 (+1.86, +.94)
- ▲ DOCTOR, 1932 RM 6 (0.0, 0.0)
- ▲ UNION, 1932 SUB. A (0.0, 0.0)

STRIP 6

- ▲ DEVRIES, 1962 RM (0.0, 0.0)
- △ DEVRIES, 1933 SUB. A (-.02, -.11)
- △ LEWES COAST GUARD LIFE SAVING STA. MAST SUB. A (+1.05, 4.06)
- △ LEWES MUNI. WATER TANK, 1962 (+.75, -1.22)
- △ LEWES W. OIL FACTORY CHY., 1962 (+2.54, +.36)
- ▲ MILITARY, 1962 SUB. A (0.0, 0.0)
- △ MILITARY, 1962 SUB. B (-.81, +.45)
- △ DELAWARE BREAKWATER L.H., 1927 (-.76, +.39)

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODETIC DATUM		ORIGINATING ACTIVITY		REMARKS
				NA 1927	COORDINATES IN FEET	GEOGRAPHIC POSITION	Coastal Mapping Division, AMC	
STATION NAME				STATE	ZONE	ϕ LATITUDE	λ LONGITUDE	
None				X=		ϕ		
				Y=		λ		
				X=		ϕ		
				Y=		λ		
				X=		ϕ		
				Y=		λ		
				X=		ϕ		
				Y=		λ		
				X=		ϕ		
				Y=		λ		
				X=		ϕ		
				Y=		λ		
				X=		ϕ		
				Y=		λ		
				X=		ϕ		
				Y=		λ		
COMPUTED BY				COMPUTATION CHECKED BY				DATE
LISTED BY				LISTING CHECKED BY				DATE
HAND PLOTTING BY				HAND PLOTTING CHECKED BY				DATE

COMPILATION REPORT

TP-00061

31. DELINEATION

Delineation was by the Wild B-8 stereoplotter using 1:40,000 scale, 1969 photography. Common detail points were selected and transferred to the 1:20,000 scale 1969 color hydro support and infra-red photography which were used to compile both the mean high and mean low water lines graphically.

32. CONTROL

The horizontal control was adequate. Refer to the Photogrammetric Plot Report, dated 3 April 1970.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

Contours are not applicable to this project. Drainage was delineated by the Wild B-8 stereoplotter and by office interpretation of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS

The mean high-water line and alongshore details were delineated by the Wild B-8 stereoplotter and by office interpretation of the photographs.

36. OFFSHORE DETAILS

All offshore details were compiled by office interpretation of the photographs. No unusual problems were encountered.

37. LANDMARKS AND AIDS

None

38. CONTROL FOR FUTURE SURVEYS

None

TP-00061

39. JUNCTIONS

Refer to the Data Record Form 76-36B, Item 5 of the Descriptive Report concerning junctions.

40. HORIZONTAL AND VERTICAL ACCURACY

See Item #32.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with the following U.S. Geological Survey Quadrangle: Lewes, Delaware 1:24,000 scale dated 1954.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following National Ocean Survey Charts 411 scale 1:40,000 9th edition, dated May 16, 1970 (corrected through Notice to Mariners 20-1970); and 1218 scale 1:80,000 16th edition dated October 23, 1969.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted by:

Richard R. White

Richard R. White
Cartographic Technician

Date: June 1970

Approved:

for *Albert C. Rauck, Jr.*

Albert C. Rauck, Jr.
Chief, Coastal Mapping Section

FIELD EDIT REPORT
Job PH-6905
West Shore Delaware Bay
Delaware
Map TP-00061

This map was field-edited during the summer season of 1971.

52. ADEQUACY OF COMPILATION

The compilation appears to be good; and after application of field edit corrections, additions, and deletions; compilation will be adequate.

A second-order traverse was run between triangulation stations BAYSIDE LAB, 1962 and DOCTOR, 1933. Two traverse stations, which are within the limits of this map, were established and monumented, namely: GROIN and CUEVE, 1970. Original records and data were forwarded to the Geodesy Division in Rockville in November, 1970. A copy of the station description, plus an unadjusted field position is included with the field edit data.

Two third-order traverses were run. One from BAYSIDE LAB, 1962 to GROIN, 1970 and one from CURVE, 1970 to WHITE, 1970. These traverses were run to provide hydrographic signal locations and to test the horizontal accuracy of the maps. Points tested are 61-03 and 61-04, and 61-06 thru 61-10. This original data was forwarded to the Atlantic Marine Center on transmittal 62-16-71 dated November 6, 1970.

54. RECOMMENDATIONS

None

55. GEOGRAPHIC NAMES

After conferring with the Chief of Division and the Geographer, it was determined that a Discrepancy Names Investigation would be adequate for all work in Jobs PH-6905 and PH-7002. This discrepancy type report is incorporated within this report. The Geographic Name Sheet and a copy of the report was forwarded to Rockville on October 13, 1970, reference 62-4-71.

56. SHORELINE AND ALONGSHORE FEATURES

Distances were measured to the mean high-water line from many of the hydrographic signal locations. A copy of the measurements is included with the field edit data.

In all exposed areas, the shoreline is generally fast, even though backed by large marshes. This is due to the piling up of sand across the seaward side of the marshes by storm and wind tides. In the narrow protected creeks, there is considerable shoreline marsh.

There appears on the photographs several areas that one would take to be ledge, however these areas are what some people call Sabellarid Reefs and are made by a marine worm, Sabellaria buldaris, that builds vertical tubes to live in by collecting grains of sand that are suspended in the water by turbulence, and bonds them

TP-00061

55 GEOGRAPHIC NAMES

These names appear on part of the Lewes, Delaware Preliminary Names Sheet.

DISPUTED NAMES

BLACK OAK GUT(R)

BLACK HOG GUT

The descriptive name BLACK OAK GUT is the only name used for this feature.

BROADKILL RIVER(R)

BROADKILL CREEK

Although disputed locally, most residents call this feature BROADKILL RIVER. Also, please see DELAWARE PLACE NAMES, Geological Survey Bulletin 1245, page 21.

OLD MILL CREEK(R)

RED MILL CREEK

The name OLD MILL CREEK is used locally. Please see also DELAWARE PLACE NAMES, Geological Survey Bulletin 1245, page 83.

STAR LANDING(R)

BLACK HOG LANDING

STAR LANDING is located at the southern point of the confluence of OLD MILL CREEK and BLACK OAK GUT. Where it is placed on the quadrangle sheet is not even navigable to a rowboat. The name Black Hog Landing is not known locally.

REFERENCES

Although many persons were contacted while investigating the names, the following persons are considered as references due to both their knowledge and interest in local names and lore:

Norman H. Thomas - contractor - Milton, Delaware 19968

Joseph Lank Marshall - The Postmaster - Lewes, Delaware 19958

Carl R. Davidson - The Postmaster - Nassau, Delaware 19969

Thomas Best - store owner - Nassau, Delaware 19969

Howard E. Millman, Sr. - farmer - Nassau, Delaware 19969

together with a secretion. In the Fossil Book by Carroll Lane Fenton and Mildred Adams Fenton, the worm colony is referred to as Sand Coral. The colonies in this area range in size from 1 to 10 centimeters high, however they have been known to be 30 centimeters in height. Recommend the feature to be shown as sand.

57. OFFSHORE FEATURES

No offshore features are noted. A wreck, located at approximate Latitude 38-48.2 and Longitude 75-10.5 was not visible. This item is a pre-survey review item which will be completely investigated by the Hydrographer.

58. LANDMARKS AND AIDS

There are no nautical landmarks or fixed aids to navigation within the limits of this map. The Tower at Broadkill Beach is gone and the landmark shown as a Stack is an aeronautical aid which can not be seen well from seaward and is not recommended for nautical charts. Form 567, recommending deletion of these two landmarks, was forwarded to Atlantic Marine Center in October 1970 along with the field edit data for Map TP-00062.

59. GENERAL STATEMENT

All field edit notes have been made in violet ink on both the field edit sheet and ratio photographs.

Horizontal control was pre-marked prior to photography in 1969. Tide-controlled photography was flown at both high and low water.

The Commanding Officer of the SHIP WHITING has been kept informed of all field edit operations. He has selected the nautical landmarks and has been furnished copies of all pertinent data.

August 2, 1971

Submitted by:

Robert S. Tibbetts
Robert S. Tibbetts
Surveying Technician

REVIEW REPORT

SHORELINE

TP-00061

61. GENERAL STATEMENT:

See Summary included with this report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

Not applicable

63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A comparison was made with U.S.G.S. quadrangle Lewes, Delaware, 1:24,000 scale dated 1954.

64. COMPARISON WITH HYDROGRAPHIC SURVEYS:

A comparison was made with a verified copy of H-9202. No significant differences were noted.

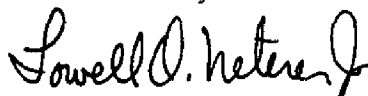
65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with N.O.S. charts 12304 27th edition, March 28, 1981, 1:80,000 scale; 12216 20th edition, June 27, 1981, 1:40,000 scale.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with project instructions and meets the requirements for National Standards of Map Accuracy.

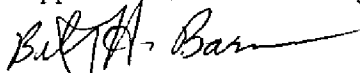
Submitted by:



Lowell O. Neterer, Jr.
Final Reviewer

January 22, 1982

Approved for forwarding;



Billy H. Barnes
Chief, Photogrammetric Branch, AMC

July 29, 1981

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6905 (Delaware Bay, Delaware)

TP-00061

Black Hog Gut-see field edit report <i>POH</i>	Hazzard Landing
Black Hog Landing-see field edit report <i>POH</i>	Hells Neck
Broadkill Beach	Long Reach
Broadkill Beach (Ppl)	No Mans Friend Reach
Broadkill Neck	Old Mill Creek
Broadkill River	Oyster Rocks (locality)
Broadkill Sound	Oyster Rocks Neck
Canary Creek	Petersfield Island
Covington Neck	Wall Island
Crooked Creek	White Neck
Davidson Marsh	Wiltbank Landing
Delaware Bay	see field edit report - Drapers Ditch <i>POH</i>
Ditch Creek	see field edit report - Petersfield Ditch <i>POH</i>
Doty Glade	see field edit report - Star Landing <i>POH</i>
Fisher Creek	see field edit report - Black Oak Gut <i>POH</i>
Flatland Reach	
Great Marsh	
Green Hill (Ppl)	

Approved by:

Charles E. Harrington
Chief Geographer, OA/C3x5

Information of Dissemination of Project Material

PH-6905

Delaware Bay

NATIONAL ARCHIVE/FEDERAL RECORD CENTER

Computer Readout

Control Station Identification Cards

Field Edit Ozalids

Field Photographs

NOAA Form 76-41 (Descriptive Report Control Record)

Project Diagrams

Plot Report

Bureau Archives

Descriptive Report

Registered Maps

Reproduction Division

8x Reduction Negative of Each Maps

Office of Staff Geographer

Geographer Names Standard

Replaces C&GS Form 567.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

U.S. DEPARTMENT OF COMMERCE
AND ATMOSPHERIC ADMINISTRATION

ORIGINATING ACTIVITY

- ☐ HYDROGRAPHIC PARTY
☐ GEODETIC PARTY
☐ PHOTO FIELD PARTY
☐ COMPILATION ACTIVITY
☒ FINAL REVIEWER
☐ QUALITY CONTROL & REVIEW GRP.
☐ COAST PILOT BRANCH
(See reverse for responsible personnel)

<input type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input checked="" type="checkbox"/> TO BE DELETED	REPORTING UNIT <i>(Field Party, Ship or Office)</i> Coastal Mapping Div. AMC, Norfolk, VA	STATE	LOCALITY	DATE
		Delaware	Lewes	August 1970
The following objects HAVE <input type="checkbox"/> HAVE NOT <input type="checkbox"/> been inspected from seaward to determine their value as landmarks.				
OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER		DATUM
	PH-6905	TP-00061		NA 1927
				METHOD AND DAT (See instructions)
				POSITION

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	J. K. Wilson
POSITIONS DETERMINED AND/OR VERIFIED	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	L. Neterer, Jr.
INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE OF LOCATION: (Consult Photogrammetric Instructions No. 64.)	
OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection P - Photogrammetric Vis - Visually 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	II. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

