TP- 00062

TP 00062

NOAA FORM 76-35
(3-76)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Map No.	*Edition No.*
TP-00062	1

Job No.
PH-6905

Map Classification
FINAL

Type of Survey
SHORELINE

LOCALITY

State
DELAWARE

General Locality
DELAWARE BAY

Locality
LEWES

1969 TO 1970

REGISTRY IN ARCHIVES

DATE

*U.S. GOVERNMENT PRINTING OFFICE:1976-669-248

MAP NOT INSPECTED BY

QUALITY CONTROL OF PHOTOGRAMMETRY DIVISION

PRIOR TO REGISTRATION

NOAA FORM 76-36A (3-72) — U. S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY: [X] ORIGINAL [ ] RESURVEY [ ] REVISED

SURVEY TP-00062

MAP EDITION NO. (1)

MAP CLASS Final

JOB PH-6905

PHOTOGRAMMETRIC OFFICE
Coastal Mapping Division
Atlantic Marine Center, Norfolk, VA

OFFICER-IN-CHARGE
Roy K. Matsushige, CDR

LAST PRECEEDING MAP EDITION
TYPE OF SURVEY: [ ] ORIGINAL [ ] RESURVEY [ ] REVISED
JOB PH-
MAP CLASS
SURVEY DATES: 19__ TO 19__

I. INSTRUCTIONS DATED

1. OFFICE		2. FIELD	
Aerotriangulation	December 10, 1969	Field	September 26, 1969
Compilation	May 12, 1970	Amendment 1	October 7, 1969
Amendment 1	April 1, 1971		
Memo (Cancel field edit)	December 14, 1979		
Memo (Completion Schedule)	June 22, 1981		

II. DATUMS

1. HORIZONTAL: [X] 1927 NORTH AMERICAN — OTHER (Specify)

2. VERTICAL: [X] MEAN HIGH-WATER [X] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL — OTHER (Specify)

3. MAP PROJECTION: Polyconic

4. GRID(S): STATE: Delaware; ZONE:

5. SCALE: 1:10,000 — STATE: ; ZONE:

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytic	BY	D. O. Norman	April 1970
	LANDMARKS AND AIDS BY		
2. CONTROL AND BRIDGE POINTS METHOD: Coradomat	PLOTTED BY	J. Dempsey	May 1970
	CHECKED BY	E. Homick	May 1970
3. STEREOSCOPIC INSTRUMENT COMPILATION	PLANIMETRY BY	A. L. Shands	May 1970
	CHECKED BY	L. O. Neterer, Jr.	May 1970
INSTRUMENT: Wild B-8	CONTOURS BY	NA	
SCALE: 1:10,000	CHECKED BY	NA	
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	A. L. Shands-R. J. Pate	June 1970
	CHECKED BY	C. H. Bishop	June 1970
METHOD: Smooth Drafted	CONTOURS BY	NA	
	CHECKED BY	NA	
SCALE: 1:10,000	HYDRO SUPPORT DATA BY	A. L. Shands	May 1970
	CHECKED BY	C. H. Bishop	June 1970
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	C. H. Bishop	June 1970
6. APPLICATION OF FIELD EDIT DATA	BY	L. L. Graves	Nov. 1970
	CHECKED BY	A. L. Shands	March 1972
7. COMPILATION SECTION REVIEW	BY	A. L. Shands	March 1972
8. FINAL REVIEW	BY	L. O. Neterer, Jr.	March 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, Chief, Photo Map and Imagery Unit	MAR 10 1983

NOAA FORM 76-36A — SUPERSEDES FORM C&GS 181 SERIES

* U.S. G.P.O. 1972-769380/547 REG. #6

NOAA FORM 76-36B
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TP-00062

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S): Wild RC-9 M
Wild RC-8 E, K and L

TIDE STAGE REFERENCE
- [X] PREDICTED TIDES
- [ ] REFERENCE STATION RECORDS
- [X] TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
- (C) COLOR
- (P) PANCHROMATIC
- (I) INFRARED

TIME REFERENCE
ZONE: Eastern — [XX] STANDARD
MERIDIAN: 75th — [ ] DAYLIGHT

	NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
+	69E(C) 2889 thru 2890	23 Oct 1969	13:24	1:20,000	0.0 ft. at MLW
+*	69K(I) 4664	26 Oct 1969	10:40	1:20,000	4.1 ft. above MLW
	70L(C) 1334 and 1335	8 Mar 1970	13:10	1:20,000	-1.0 ft. below MLW

Camera focal length: E = 152.71 mm, K = 151.77 mm, L = 152.21 mm, M = 88.20

REMARKS *Centers not shown on manuscript
+Tide coordinated photography

2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high-water line was compiled from the above listed tide coordinated infrared photographs and the 1970 color photographs.

The mean high-water line was recompiled using measurements from traverse points determined during field edit July 1970, approximately between Longitude 75°07'30" and Longitude 75°10'00".

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 and predicted tide color 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	EAST	SOUTH	WEST
No Survey	No Survey	TP-00121	TP-00061

REMARKS A 1:5,000 scale manuscript inset falls between Latitude 38°46'30" and Latitude 38°48'30" and Longitude 75°05'00" and Longitude 75°07'30". This is TP-00063.

NOAA FORM 76-36C
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TP-00062

HISTORY OF FIELD OPERATIONS

I. [X] FIELD INSPECTION OPERATION (Premarking) [ ] FIELD EDIT OPERATION.

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		J. K. Wilson	Oct. 1969
2. HORIZONTAL CONTROL	RECOVERED BY	J. K. Wilson	Oct. 1969
	ESTABLISHED BY	None	
	PRE-MARKED OR IDENTIFIED BY	P. Walbolt	Oct. 1969
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 [ ] COMPLETE [ ] SPECIFIC NAMES ONLY [X] NO INVESTIGATION — BY		
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

NA

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
69 M 1591	De Vries RMI, 1962		
69 M 1591	De Vries, 1933		

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 [X] NONE

6. BOUNDARY AND LIMITS: [ ] REPORT [X] NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

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

2 - forms C & GS 152
17 - forms C & GS 526

NOAA FORM 76-36C
(3-72)

*U.S. GOVERNMENT PRINTING OFFICE: 1974 - 768-078

NOAA FORM 76-36C
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TP-00062

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION ☒ FIELD EDIT OPERATION.

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		J. K. Wilson	Oct. 1970
2. HORIZONTAL CONTROL	RECOVERED BY	J. K. Wilson	Oct. 1970
	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	P. Walbolt	Oct. 1970
	LOCATED (*Field Methods*) BY	R. Tibbetts, P. Walbolt	Oct. 1970
	IDENTIFIED BY	P. Walbolt	Oct. 1970
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION — BY		
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	R. Tibbetts	Oct. 1970
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*)

69E(C) 2889-2890

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

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

1 - field edit ozalid
1 - field edit report
2 - forms C & GS 526
6 - forms C & GS 567

NOAA FORM 76-36C
(3-72)

*U.S. GOVERNMENT PRINTING OFFICE: 1974 - 768-078

NOAA FORM 76-36D
(3-72)

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

TP-00062

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	May 1970	Class III Superseded	June 9, 1970	
Field Edit applied Compilation complete	Nov. 1970	Class I		
Final Review	Mar 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
3 Forms		Nov 1982	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

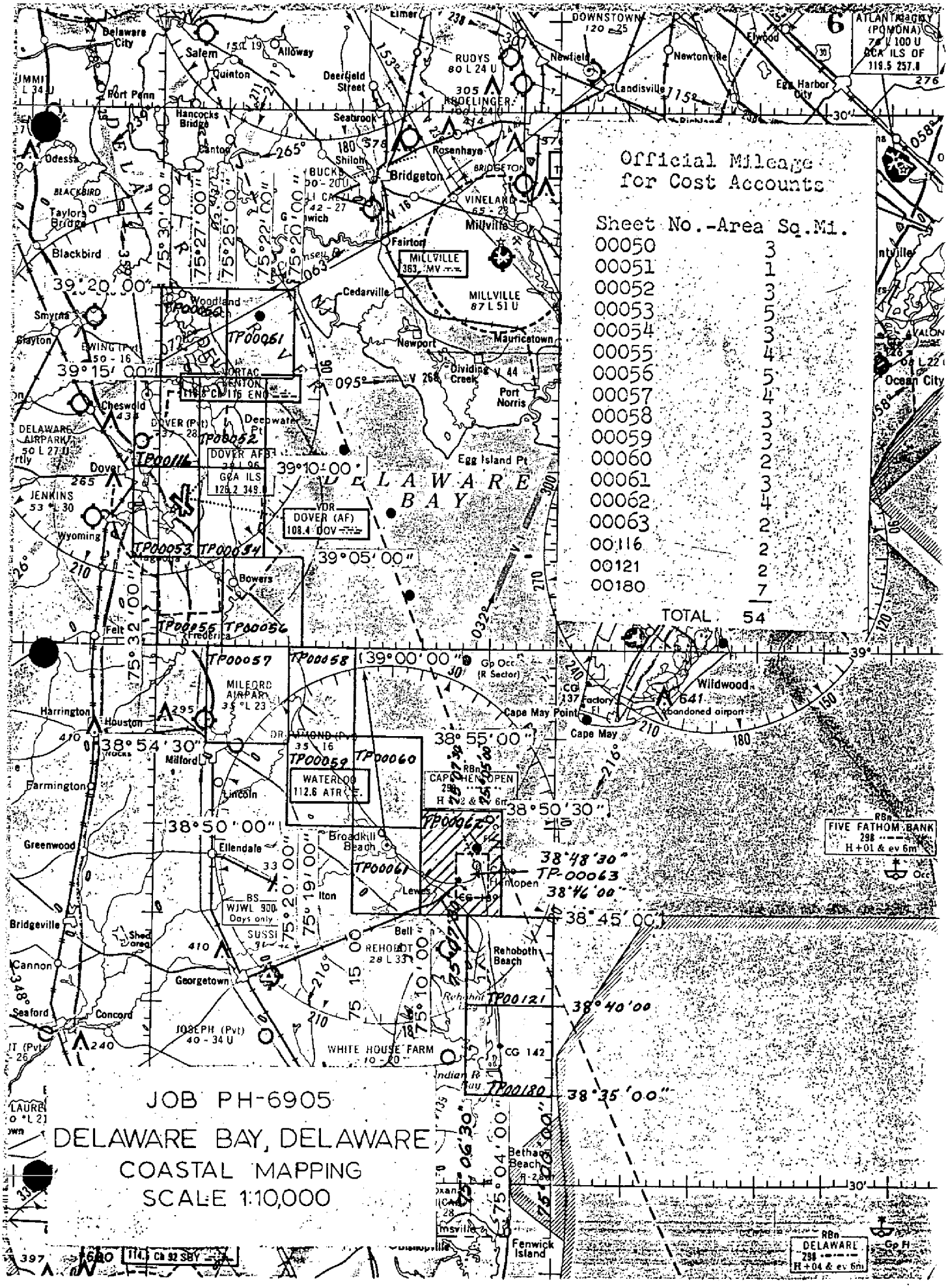
1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS. 76-40 SUBMITTED BY FIELD PARTIES.
3. ☒ SOURCE DATA *(except for Geographic Names Report)* AS LISTED IN SECTION II, NOAA FORM 76-36C.
   ACCOUNT FOR EXCEPTIONS: 14 forms CdG5526, Photo 69M1591
   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)*

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

NOAA FORM 76-36D

*U.S. GOVERNMENT PRINTING OFFICE:1977-765-092


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
DELAWARE BAY
Delaware City
Salem
Quinton
Alloway
Elmer
Deerfield Street
Fort Penn
Hancocks Bridge
Seabrook
Canton
Odessa
Shiloh
Bridgeton
Rosenhayn
RUDYS
RODELINGER
DOWNSTOWN
Newfield
Newtonville
Landisville
Egg Harbor City
Elwood
ATLANTIC CITY (POMONA)
Taylors Bridge
Blackbird
Smyrna
Clayton
Woodland
Cedarville
Fairton
Millville
MILLVILLE
Newport
Mauricetown
Dividing Creek
Port Norris
Ocean City
Cheswold
DELAWARE AIRPARK
Dover
DOVER AFB
DOVER (AF)
Egg Island Pt
JENKINS
Wyoming
Magnolia
Bowers
Felt
Frederica
MILFORD AIRPARK
Harrington
Houston
Milford
Farmington
Lincoln
WATERLOO
Greenwood
Ellendale
Broadkill Beach
Lewes
Rehoboth Beach
Bridgeville
Cannon
Georgetown
Seaford
Concord
JOSEPH (Pvt)
WHITE HOUSE FARM
Bethany Beach
Fenwick Island
Wildwood
Cape May Point
Cape May
CAPE HENLOPEN
FIVE FATHOM BANK
DELAWARE
39°20'00"
39°15'00"
39°10'00"
39°05'00"
39°00'00"
38°54'30"
38°50'00"
38°55'00"
38°50'30"
38°48'30"
38°46'00"
38°45'00"
38°40'00"
38°35'00"
75°30'00"
75°27'00"
75°25'00"
75°22'00"
75°20'00"
75°19'00"
75°16'00"
75°13'00"
75°10'00"
75°06'30"
75°04'00"
TP00050
TP00051
TP00052
TP00053
TP00054
TP00055
TP00056
TP00057
TP00058
TP00059
TP00060
TP00061
TP00062
TP00063
TP00116
TP00121
TP00180

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-00062

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 and registering these 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 contemporary shoreline data in the 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 requirements.

Photographic coverage for aerotriangulation was provided in October 1969 using Panchromatic film with the "M" camera at 1:80,000 scale and in March 1970 using color film in the "L" camera at 1:20,000 scale. Compilation photography was taken with color film in the "E" and "L" cameras at 1:20,000 scale.

Tide coordinated infrared 1:20,000 scale high water photography was taken in October 1969 with the "K" camera. It was used to compile the Delaware Bay shoreline.

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

Compilation was performed from office interpretation of both the October 1969 and March 1970 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 October 1970.

Field Edit was applied and completed at the Atlantic Marine Center in November 1970.

The final review was performed at the Atlantic Marine Center in March 1982.

TP-00062

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

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

FIELD INSPECTION

TP-00062

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.

Job PH-6905
Delaware Bay, Delaware
August, 1970

21. Area Covered

This report covers the coastal area of Delaware from Lewes to Bethany Beach. Included in this area are T-sheets, TP-00121 and TP-00180, at 1:10,000 scale.

22. Method

One strip (#3), 70-L(C)-1332 through 1348, was bridged on the STK-1B and adjusted on the CDC 6600. The strip was adjusted on seven horizontal control stations with seven companion stations and six office-identified stations as checks. All horizontal control held within National Map Accuracy Standards. No attempt was made to tie Strip #3, by pass points, with Strips #2 and #6, which cross Strip #3 on the north end. Strips #2 and #6 were not available in this office at the time of bridging. No junction problems should appear because of the use of common control points on all three strips. Estimated vertical control was selected along the beach and low inland areas. Positions for nine hydro-stations and sub-stations were located during bridging operations. All pass points were drilled by PUG methods. Positions for points were furnished on the Delaware (Transverse Mercator) state grid system.

23. Adequacy of Control

Horizontal control was adequate and complied with project instructions.

24. Supplemental Data

None

25. Photography

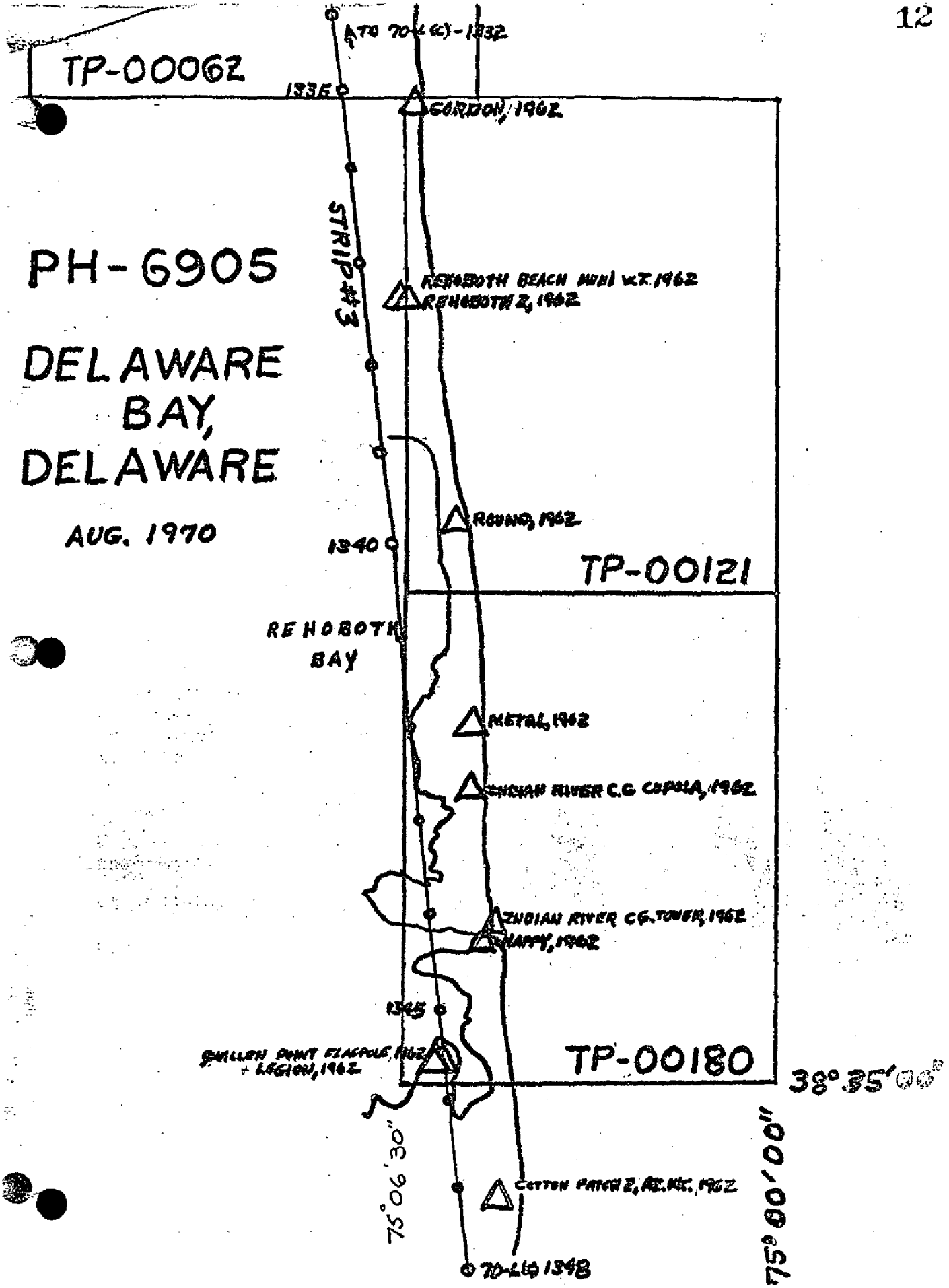
Photography was adequate as to coverage, overlap, definition and quality of diapositives.

Submitted by,

John D. Perrow, Jr.

Approved by,

H. P. Eichert
Chief, Aerotriangulation
Section


TP-00062
ATO 70-LEG)-1332
1336
GORDON, 1962
STRIP #3
REHOBOTH BEACH MUNI WT 1962
REHOBOTH 2, 1962
PH-6905
DELAWARE BAY, DELAWARE
AUG. 1970
ROUND, 1962
1340
TP-00121
REHOBOTH BAY
METAL, 1962
INDIAN RIVER C.G CUPOLA, 1962
INDIAN RIVER C.G. TOWER, 1962
HAPPY, 1962
1345
BULLEN POINT FLAGPOLE, 1962
+ LEGION, 1962
TP-00180
38°.35'.00"
75°.06'.30"
75°.00'.00"
COTTON PATCH 2, AZ. MK., 1962
70-LEG 1348

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.

25. Photography

The photography was adequate.

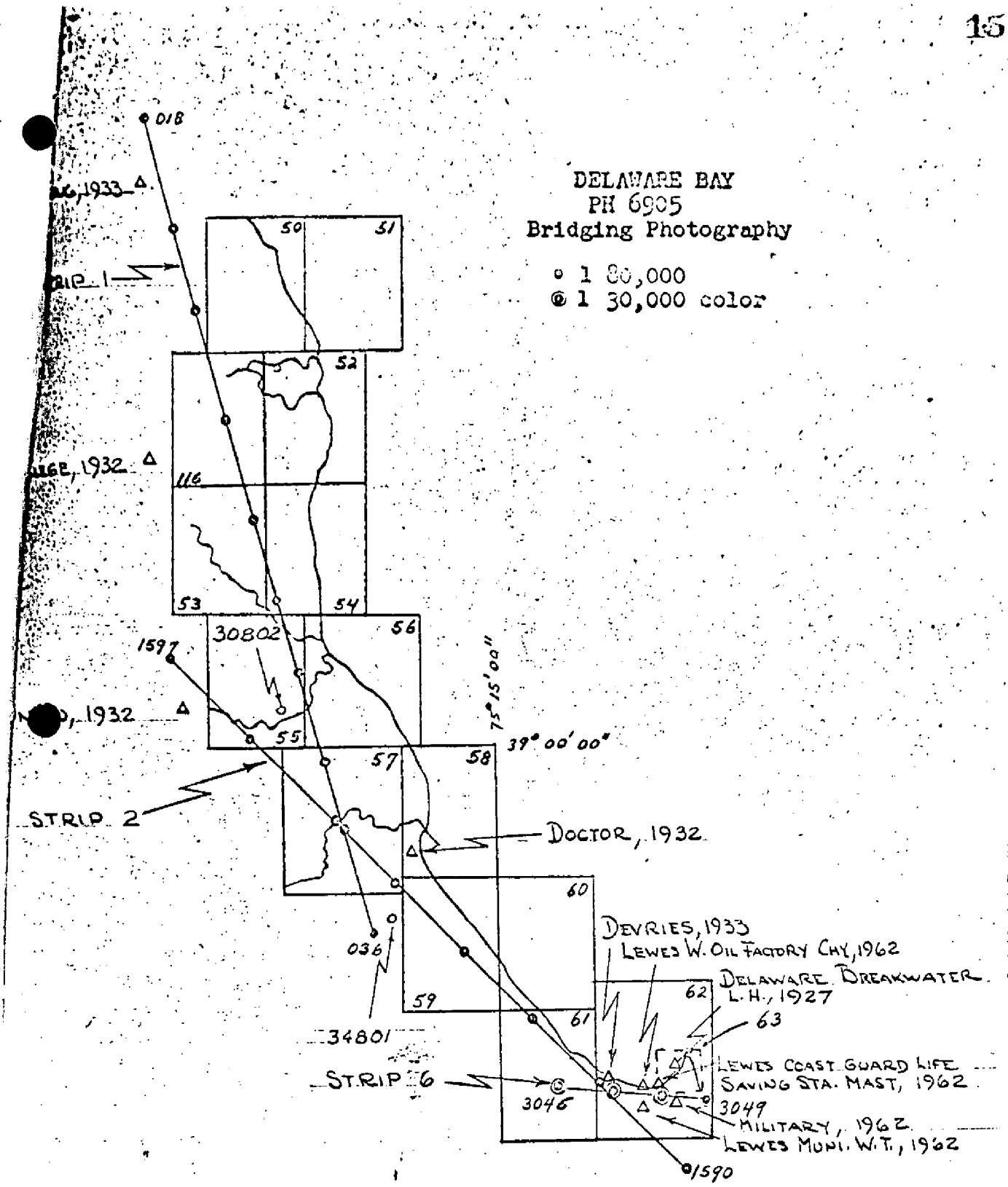
Respectfully submitted,

Don O. Norman

Don O. Norman

Approved and Forwarded,

Henry P. Eichert, Chief
Aerotriangulation Section


DELAWARE BAY
PH 6905
Bridging Photography
○ 1 80,000
◎ 1 30,000 color
018
1933 Δ
STRIP 1
50
51
52
1932 Δ
116
53
54
30802
56
1597
1932 Δ
55
75°15'00"
39°00'00"
57
58
STRIP 2
DOCTOR, 1932
60
DEVRIES, 1933
LEWES W. OIL FACTORY CHY, 1962
036
DELAWARE BREAKWATER L.H., 1927
62
59
61
63
34801
LEWES COAST GUARD LIFE SAVING STA. MAST, 1962
STRIP 6
3046
3049
MILITARY, 1962
LEWES MUNI. W.T., 1962
1590

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)
▲ 30302 TIE POINT
△ UNION STA. A (-6.36, +2.28)
△ DOCTOR, 1932 RM 6 (-4.63, +6.75)
▲ 34301 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 CNY., 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)

NOAA FORM 76-41
(6-75)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETIC DATUM	ORIGINATING ACTIVITY
TP-00062	PH-6905	NA 1927	Coastal Mapping Division, AMC

STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI-ANGULATION POINT NUMBER	COORDINATES IN FEET (STATE / ZONE)	GEOGRAPHIC POSITION (φ LATITUDE / λ LONGITUDE)	REMARKS
MILITARY (FORT MILES RANGE CONTROL TOWER) 1962	380751 Sta 1064		x=	φ 38°46'32.49613"	1002.1 (848.1)
			y=	λ 75°06'03.39557"	82.0 (1366.4)
LEWES WEST OIL FACTORY CHIMNEY, 1962	380751 1066		x=	φ 38°46'53.55492"	1651.4 (198.8)
			y=	λ 75°07'00.10965"	2.6 (1445.6)
DE VRIES, 1933	380751 1072		x=	φ 38°47'10.40145"	320.7 (1529.4)
			y=	λ 75°09'32.10813"	775.0 (673.2)
DE VRIES MONUMENT CENTER NEAR STATION DEVRIES, 1933	380751 1073		x=	φ 38°47'10.347"	319.1 (1531.1)
			y=	λ 75°09'32.156"	776.1 (672.1)
DE VRIES RM 1 1962	380751 1074		x=	φ 38°47'09.66817"	298.1 (1552.1)
			y=	λ 75°09'31.17049"	752.3 (695.9)
RADIO (DEL.), 1932	GP Vol #1 Pg 3		x=	φ 38°47'24.892"	767.6 (1082.6)
			y=	λ 75°05'28.820"	695.6 (752.4)
LEWES EPISCOPAL CHURCH SPIRE, 1962	GP Vol #1 Pg 91		x=	φ 38°46'31.09095"	958.7 (891.4)
			y=	λ 75°08'27.94081"	674.5 (773.9)
LEWES MUNICIPAL WATER TANK 1962	380751 1069		x=	φ 38°46'18.86083"	581.6 (1268.6)
			y=	λ 75°08'11.44435"	276.3 (1172.1)
LEWES UNIV. OF DEL LAB WATER TANK 1962	380751 1077		x=	φ 38°47'28.33597"	873.8 (976.4)
			y=	λ 75°09'45.01485"	1086.4 (361.7)
			x=	φ	
			y=	λ	

COMPUTED BY	DATE	COMPUTATION CHECKED BY	DATE
R. White	4/27/70	C. Blood	4/30/70
LISTED BY	DATE	LISTING CHECKED BY	DATE
HAND PLOTTING BY	DATE	HAND PLOTTING CHECKED BY	DATE

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

NOAA FORM 76-41
(6-75)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETIC DATUM	ORIGINATING ACTIVITY
TP-00062	PH-6905	NA 1927	Coastal Mapping Division, AMC

STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	COORDINATES IN FEET (STATE / ZONE)	GEOGRAPHIC POSITION (φ LATITUDE, λ LONGITUDE)	REMARKS
FORT MILES U.S. NAVY WATER TANK, 1962	380751 1053		x=	φ 38°46'07.94225"	244.9 (1605.3)
			y=	λ 75°05'12.23621"	295.4 (1153.1)
HARBOR OF REFUGE LIGHTHOUSE, (DEL.), 1927	G.P. Vol #1 Pg. 73		x=	φ 38°48'51.827"	1598.1 (252.1)
			y=	λ 75°05'33.975"	819.7 (627.9)
DELAWARE BREAKWATER LIGHTHOUSE (DEL.) 1927	G.P. Vol. #1 Pg. 73		x=	φ 38°47'49.215"	1517.6 (332.6)
			y=	λ 75°06'01.243"	30.0 (1418.0)
FORT MILES OBSERVATION TOWER No. 8, 1962	380751 1061		x=	φ 38°47'17.31306"	533.9 (1316.3)
			y=	λ 75°05'42.83922"	1033.9 (414.2)
FORT MILES OBSERVATION TOWER No. 13, 1962	380751 1068		x=	φ 38°46'45.28642"	1396.5 (453.7)
			y=	λ 75°07'12.79928"	309.0 (1139.3)
FORT MILES OBSERVATION TOWER No. 7, 1962	380751 1063		x=	φ 38°46'34.35507"	1059.4 (790.8)
			y=	λ 75°05'35.30368"	852.2 (596.1)
LEWES PRESBYTERIAN CHURCH SPIRE, 1896	G.P. Vol. #1 Pg. 90		x=	φ 38°46'19.925"	614.4 (1235.8)
			y=	λ 75°08'22.664"	547.1 (901.3)
LEWES, COAST GUARD LIFE SAVING STATION, MAST 1962	380751 1067		x=	φ 38°46'51.05840"	1574.4 (275.8)
			y=	λ 75°07'15.52925"	374.8 (1073.4)
			x=	φ	
			y=	λ	
			x=	φ	
			y=	λ	

COMPUTED BY	DATE	COMPUTATION CHECKED BY	DATE
R. White	4/27/70	C. Blood	4/30/70
LISTED BY	DATE	LISTING CHECKED BY	DATE
HAND PLOTTING BY	DATE	HAND PLOTTING CHECKED BY	DATE

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

NOAA FORM 76-41
(6-75)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETIC DATUM	ORIGINATING ACTIVITY
TP-00062	PH-6905	NA 1927	Coastal Mapping Division, AMC

STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI-ANGULATION POINT NUMBER	COORDINATES IN FEET STATE ZONE	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	REMARKS
HARBOR OF REFUGE NORTH END LIGHT 1970	Field Comp.		x=	φ 38°49'56.87"	1753.6 (96.5)
			y=	λ 75°06'22.02"	531.1 (916.1)
			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	
			x=	φ	
			y=	λ	

COMPUTED BY	DATE	COMPUTATION CHECKED BY	DATE
L. L. Graves	11/10/70	A. L. Shands	
LISTED BY	DATE	LISTING CHECKED BY	DATE
HAND PLOTTING BY	DATE	HAND PLOTTING CHECKED BY	DATE

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

19

COMPILATION REPORT

TP-00062

PH-6905

31. DELINEATION

Delineation was by the Wild B-8 stereoplotter using 1:40,000 scale color photography. Common points were pricked on 1:20,000 scale color photographs ratioed to 1:10,000 scale. Both sets of photography were of very good quality.

There was not enough photo coverage to allow the delineation of the Harbor of Refuge with its lights and breakwater.

There was no field inspection prior to compilation.

32. CONTROL

The horizontal control was adequate. See Photogrammetric Plot Report, dated April 3, 1970.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINGAGE

Contours are inapplicable to the project. Drainage was delineated from office interpretation of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS

The mean high-water line and all alongshore details were delineated from office interpretation of the photographs.

36. OFFSHORE DETAILS

Offshore detail was compiled from office interpretation of the photographs. There was no photograph coverage of the Harbor of Refuge area.

37. LANDMARKS AND AIDS

Appropriate copies of 76-40 forms are being submitted with this descriptive report.

TP-00062

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

See Form 76-36b, Item 5 of the Descriptive Report.

40. HORIZONTAL AND VERTICAL ACCURACY

See Item #32.

46. COMPARISON WITH EXISTING MAPS

Comparisons have been made with U.S.G.S. Quadrangles Cape Henlopen, Delaware-New Jersey and Lewes, Delaware, scale 1:24,000, dated 1954.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison has been made with Chart No. 411, scale 1:40,000, 9th edition, dated May 16, 1970 (corrected through Notice to Mariners 20-1970) and Chart No. 1218, 16th edition, 1:80,000 scale, dated October 25, 1969 (corrected through Notice to Mariners 43-1969).

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted by:

for Arnold L. Shands
Cartographer

June 2, 1970

Approved by:

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

49. NOTES FOR THE HYDROGRAPHER

The detail in the area of THE SHEARS and HARBOR OF REFUGE was not delineated. There was no photography covering the area. The position and delineation of any details in this area will be accomplished by the hydrographer.

FIELD EDIT REPORT
Job PH-6905
West Shore Delaware Bay
Delaware

This report is submitted for Map Number TP-00062; it includes a 1:5,000 scale map TP-00063. The field edit was accomplished during the Summer season of 1970.

52 ADEQUACY OF COMPILATION

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

A third order traverse was run between triangulation stations RADIO 1932 and DE VRIES 1933 to test the horizontal accuracy of the maps. Thirteen points were tested, and the data was submitted to the Atlantic Marine Center for comparison and evaluation.

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.

56 SHORELINE AND ALONGSHORE FEATURES

Distances were measured to the mean high water line from a few traverse points; however in some instances it was necessary to supplement these with distances from photo points. These have been pricked on 1:5,000 ratio photos No. 69-E-2847, 2869, and 2870; and on 1:10,000 ratio photos 69-E-2889 and 2890.

All cables, docks, piers, piling, etc., were investigated and either shown or deleted on the field-edit sheet.

57 OFFSHORE FEATURES

It was necessary to locate the angle points of the two offshore breakwaters and elleven ice breakers by ground survey methods. The positions were computed by A.M.C. and by the SHIP WHITING, and are enclosed with the field edit data.

58 LANDMARKS AND AIDS

Form 567 is submitted for all nautical landmarks and fixed aids to navagation.

Harbor of Refuge North End Light was razed in August 1970 and a new light erected about 25 feet to the south-southeast. A new third-order position was determined.

The radar towers in the southeast portion of the map were razed during the 1970 Summer season.

59 GENERAL STATEMENT

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

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.

15 October 1970
Submitted by:

Robert S Tibbetts
Robert S. Tibbetts
Surveying Technician

TP-00062

55 GEOGRAPHIC NAMES

These names appear on parts of both the Lewes, Delaware and the Cape Henlopen, Delaware-New Jersey Preliminary Names Sheets.

NEW NAMES

THE CAPES - This name applies to the area immediately northeast of the Lewes and Rehoboth Canal, to the south of Lewes, and to the North of Rehoboth.

DISPUTED NAMES

BROADKILL RIVER - Please see report for TP-00061.

DODD NECK(R)
WOLFE NECK
The family name DODD is used for this feature.

STAUFFER GLADE(R)
STAUFFERS GLADE
WOLFE GLADE
Everyone contacted locally uses the family name STAUFFER GLADE.

THE SALT FLATS(R)
FLAT SANDS - quadrangle sheet
REHOBOTH FLATS - chart 411
THE SALT FLATS is the name used locally for this area. No one even knew the other names.

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

SUPPLEMENT TO FIELD EDIT REPORT

On October 21, 1970, the Chief of Photogrammetry, Atlantic Marine Center requested that I scale the x and y coordinates of 11 mapped points. These points had been selected by a survey party to determine the horizontal accuracy of two maps.

Maps T-00062 and T-00063 were tested by making a comparison of the scaled position with the position of these points derived from a traverse that closed better than 1 part in 39,000.

Of seven detail points located on Map sheet T-00062 (1:10,000 scale), two points were thought to be poor selections prior to scaling (62-07 is the corner of an ill-defined parking lot, 62-13 is the tangential junction of two roads). As anticipated, these two points failed to check by 17 and 34 feet respectively. Of the remaining five points of comparison, errors range from a minimum of 2 feet to a maximum of 13 feet. The average error is 8 feet.

Positions for four detail points were furnished on Map sheet T-00063 (1:5,000 scale). The errors range from a minimum of 2 feet to a maximum of 5 feet. The average error is 4 feet.

E. J. Jenkins

E. T. Jenkins
Supervisory Cartographer

ETJ:khp

cc: C141, C142, C14

SUPPLEMENT TO FIELD EDIT REPORT

On October 21, 1970, the Chief of Photogrammetry, Atlantic Marine Center requested that I scale the x and y coordinates of 11 mapped points. These points had been selected by a survey party to determine the horizontal accuracy of two maps.

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Of seven detail points located on Map sheet T-00062 (1:10,000 scale), two points were thought to be poor selections prior to scaling (62-07 is the corner of an ill-defined parking lot, 62-13 is the tangential junction of two roads). As anticipated, these two points failed to check by 17 and 34 feet respectively. Of the remaining five points of comparison, errors range from a minimum of 2 feet to a maximum of 13 feet. The average error is 8 feet.

Positions for four detail points were furnished on Map sheet T-00063 (1:5,000 scale). The errors range from a minimum of 2 feet to a maximum of 5 feet. The average error is 4 feet.

E. T. Jenkins
Supervisory Cartographer

ETJ:khp

cc: C141, C142, C14

REVIEW REPORT

SHORELINE

TP-00062

61. GENERAL STATEMENT

See Summary included with this report for final map.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Not applicable

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with U.S.G.S. quadrangles: LEWES, DELAWARE, and CAPE HENLOPEN, DELAWARE-NEW JERSEY both 1:24,000 scale and dated 1954.

64. COMPARISON WITH HYDROGRAPHIC SURVEYS

A comparison was made with verified copies of Hydrographic Survey H-9203 and 9154. No significant differences were noted.

65. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with Chart 12216, 20th edition, dated June 27, 1981, 1:40,000 scale, and Chart 12304, 27th edition, dated March 28, 1981, 1:80,000 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

Approved for forwarding:

Billy H. Barnes
Chief, Photogrammetric Branch, AMC

July 29, 1981

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6905 (Delaware Bay, Delaware)

TP-00062

Atlantic Ocean LOHP.

Breakwater Harbor

Broadkill River

Canary Creek

Conrail (RR)

Delaware Bay

Gills Neck

Harbor of Refuge

Lewes

Lewes and Rehobeth Canal

Lewes Beach (Ppl)

Roosevelt Inlet

~~Wolfe Glade~~ - See field edit report LOHP.

~~Wolfe Neck~~ - See field edit report LOHP.

Dodd Neck-- See field edit report LOHP

Stauffer Glade-- See field edit report LOHP

The Salt Flats-- See the field edit report LOHP

Approved by:

Charles E. Harrington

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

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

[redacted] LANDMARKS FOR CHARTS

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)

☒ TO BE CHARTED
☐ TO BE REVISED
☐ TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
Coastal Mapping Division AMC, Norfolk, VA	Delaware	South Shore Delaware Bay	Nov. 1970

The following objects HAVE ☒ HAVE NOT ☐ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
	PH-6905	TP-00062	NA 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	METHOD AND DATE OF LOCATION FIELD	CHARTS AFFECTED
TANK	Tank, Water, Steel, Silver (Lewes Municipal Water Tank, 1962) Ht. = 116 (128)	38 46	18.861 581.6	75 08	11.444 276.3	October 3, 1969 69E(C) 2889	F-V-1 June 15, 1970	12216 12304
SPIRE	Spire, cross on top (Lewes Episcopal Church Spire, 1962) Ht.=97 (110)	38 46	31.091 958.7	75 08	27.941 674.5	October 3, 1969 69 E (C) 2889	F-V-1 June 15, 1970	12216 12304
TANK	Tank, Water, Wood (Lewes University of Del., Lab. Water Tank, 1962) Ht.=40 (50)	38 47	28.336 873.8	75 09	45.015 1086.4	October 3, 1969 69 E(C) 2889	F-V-1 June 15, 1970	12216 12304
TANK	Tank, Water, green, steel (Fort Miles, U.S. Navy Water Tank, 1962) Ht. = 158 (178)	38 46	07.942 244.9	75 05	12.236 295.4	March 8, 1970 70-L(C) 1334	F-V-1 June 15, 1970	12216 12304

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	Joseph K. Wilson	FIELD ACTIVITY REPRESENTATIVE
	Lawrence L. Graves	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

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

I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field Identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

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

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.

NOAA FORM 76-40 (8-74)
Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NONFLOATING AIDS [redacted] FOR CHARTS

ORIGINATING ACTIVITY
- [ ] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [X] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [X] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office): Coastal Mapping Section AMC, Norfolk, VA
STATE: DELAWARE
LOCALITY: South Shore Delaware Bay
DATE: Nov. 1970

The following objects HAVE [X] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.:
JOB NUMBER: PH-6905
SURVEY NUMBER: TP-00062
DATUM: NA 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE // D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE // D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
	DELAWARE BAY ROOSEVELT INLET							12216
LIGHT*	South Jetty Light	38 47.6		75 09.4				12216 12304
LIGHT	North Jetty Light	38 47	40.18 1239	75 09	28.58 690	October 3, 1969 F-V 69E(C) 2889	July 15, 1970	12216 12304
LIGHT+	Range Front Light	38 47.3		75 09.7				12216 12304
LIGHT +	Range Rear Light	38 47.2		75 09.8				12216 12304
	*This light reestablished in 1979. +These lights reestablished in 1974.							
	DELAWARE BAY SOUTH APPROACH							
LIGHT	Harbor of Refuge Light (Harbor of Refuge Lighthouse, 1927	38 48	51.827 1598.1	75 05	33.975 819.7		F-V-1 July 15, 1970	12216 12304

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	Joseph K. Wilson	FIELD ACTIVITY REPRESENTATIVE
	Lawrence L. Graves	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

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

I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

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

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.

NOAA FORM 76-40 (8-74)

Replaces C&GS Form 567.

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NONFLOATING AIDS [redacted] FOR CHARTS

ORIGINATING ACTIVITY
- [ ] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [X] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [X] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
Coastal Mapping Section AMC, Norfolk, VA	Delaware	South Shore Delaware Bay	Nov. 1970

The following objects HAVE [XX] HAVE NOT [ ] been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
	PH-6905	TP-00062	NA 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
	DELAWARE BAY HARBOR OF REFUGE							
LIGHT	North End Light	38° 49	56.87 1753.6	75 06	22.02 531.1		F-L July 15, 1970	12216 12304
LIGHT	Delaware Bay West Icebreaker Light	38 50	08.70 268	75 07	10.44 252		F-L July 15, 1970	12216 12304
*LIGHT	Delaware Bay East Icebreaker Light	38 50.3		75 06.7				12216 12304
	*This light reestablished in 1980.							

RESPONSIBLE PERSONNEL		
TYPE OF ACTION	**NAME**	**ORIGINATOR**
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	Joseph K. Wilson	FIELD ACTIVITY REPRESENTATIVE
	Lawrence L. Graves	OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

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

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

F - Field	P - Photogrammetric
L - Located	Vis - Visually
V - Verified	
1 - Triangulation	5 - Field identified
2 - Traverse	6 - Theodolite
3 - Intersection	7 - Planetable
4 - Resection	8 - Sextant

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

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

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.

☆ U.S. GPO:1975-0-665-080/1155

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. ______________________

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
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