

TP-00180

TP-00180

NOAA FORM 76-35 (3-76) U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
<i>Map No.</i> TP-00180	<i>Edition No.</i> 1
<i>Job No.</i> PH-6905	
<i>Map Classification</i> FINAL	
<i>Type of Survey</i> SHORELINE	
LOCALITY	
<i>State</i> DELAWARE	
<i>General Locality</i> DELAWARE BAY	
<i>Locality</i> INDIAN RIVER INLET	
19 69 TO 1970	
REGISTRY IN ARCHIVES	
DATE	

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

- ☒ ORIGINAL
- ☐ RESURVEY
- ☐ REVISED

SURVEY TF-00180

MAP EDITION NO. (1)

MAP CLASS FINAL

JOB PH 6905

PHOTOGRAMMETRIC OFFICE

Coastal Mapping Division, AMC
Norfolk, VA

OFFICER-IN-CHARGE

Roy K. Matsushige

LAST PRECEDING MAP EDITION

TYPE OF SURVEY

- ☐ ORIGINAL
- ☐ RESURVEY
- ☐ REVISED

JOB PH-

MAP CLASS

SURVEY DATES:

19 TO 19

I. INSTRUCTIONS DATED

1. OFFICE

Aerotriangulation December 10, 1969

Compilation May 12, 1970

Amendment 1 April 1, 1971

Memo (Cancel field edit) December 14, 1979

Memo (Compilation Schedule) June 22, 1981

2. FIELD

Field September 26, 1969

Amendment 1 October 7, 1969

II. DATUMS

1. HORIZONTAL:

☒ 1927 NORTH AMERICAN

OTHER (Specify)

2. VERTICAL:

☒ MEAN HIGH-WATER

☐ 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 BY METHOD: Analytic LANDMARKS AND AIDS BY	D. Norman	April 1970
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Coradomat CHECKED BY	J. Dempsey E. Homick	Sept. 1970 Sept. 1970
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY	R. White A. Shands	Sept. 1970 Sept. 1970
INSTRUMENT: Wild B-8 SCALE: 1:10,000	CONTOURS BY CHECKED BY	NA NA
4. MANUSCRIPT DELINEATION PLANIMETRY BY	A. Shands	Oct. 1970
CHECKED BY	C. Blood	Oct. 1972
METHOD: Smooth Draft	CONTOURS BY	NA
CHECKED BY	NA	
SCALE: 1:10,000 HYDRO SUPPORT DATA BY	A. Shands	Oct. 1970
CHECKED BY	C. Blood	Oct. 1972
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	None	
6. APPLICATION OF FIELD EDIT DATA BY	S. Kumer	Oct. 1972
CHECKED BY	C. Blood	Oct. 1972
7. COMPILATION SECTION REVIEW BY	C. Blood	Oct. 1972
8. FINAL REVIEW BY	L. O. Neterer, Jr.	April 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 SURVEYTP-00180
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) RC-8-L focal length = 152.21 mm		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE ☒ PREDICTED TIDES ☐ REFERENCE STATION RECORDS ☐ TIDE CONTROLLED PHOTOGRAPHY				ZONE Eastern	☒ STANDARD
				MERIDIAN 75th	☐ DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
70 L(C) 1341 thru 1346	8 April, 70	13:10	1:20,000	0.4 ft. above MLW	

REMARKS

2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high-water line was compiled from the above-listed color photographs and checked by traverse points submitted by the field party.

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

The mean low water line was compiled from the above listed color photographs; the stage of tide was computed from predicted tides.

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
TP-00121	No Survey	No Survey	No Survey

REMARKS

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYTP-00180
HISTORY OF FIELD OPERATIONSI. ☒ FIELD INSPECTION OPERATION☐ 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	
	☐ COMPLETE BY	
	☐ SPECIFIC NAMES ONLY	
	☒ 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 ☒ 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)

Abstract of traverse positions

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

TP-00180

HISTORY OF FIELD OPERATIONS

I. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. K. Wilson	1970
2. HORIZONTAL CONTROL	RECOVERED BY E. Hartford	March 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	Aug. 1970
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY P. Walbolt	Aug. 1970
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION	
	☐ COMPLETE BY	
	☐ SPECIFIC NAMES ONLY	
	☒ NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY J. K. Wilson	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)

70 L(C) 1342-1345

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
70 L(C) 1343	Rehoboth Bay Channel Daybeacon 20		

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

8 - forms C & GS 526

1 - field edit report

4 - Form Set GS 152

3 - forms C & GS 76-40

NOAA FORM 76-36C
(3-72)

TP-00180
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	Oct. 1970	Class III superseded		
Field edit applied Compilation complete	Oct. 20, 1972	Class I		
Final Review	April 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

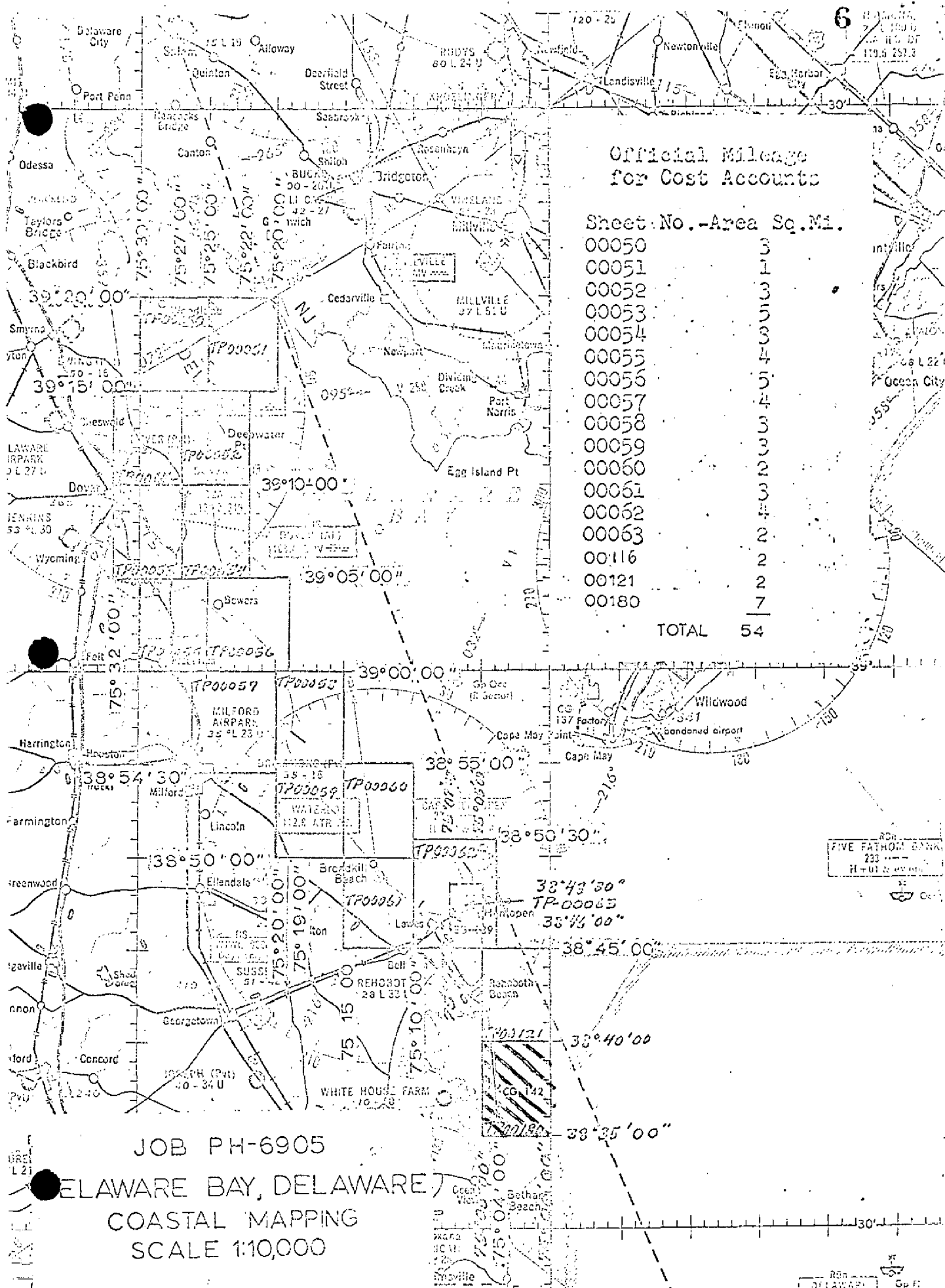
1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS 567 SUBMITTED BY FIELD PARTIES.
3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
ACCOUNT FOR EXCEPTIONS: 8 Forms CdGS 520

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 ☐ REVISED ☐ RESURVEY MAP CLASS ☐ 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	



Official Mileage for Cost Accounts

Sheet No.-Area Sq.Mi.

00050	3
00051	1
00052	3
00053	3
00054	3
00055	4
00056	5
00057	4
00058	3
00059	3
00060	3
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
233
H-01 & 02

DELAWARE

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-00180

This 1:10,000 scale manuscript is one of seventeen maps that comprise 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 support of hydrographic operations and 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 April 1970 using color film in the "L" camera, at 1:20,000 scale. This photography was flown near low water. This was determined from the predicted tide tables.

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

Compilation was performed at the Atlantic Marine Center in April 1970. During this time the limits of this map were extended westward 1'30" from 75°05'00" to 75°06'30" for a more comprehensive map. Preparations of hydrographic support photography was done at the Atlantic Marine Center and submitted to the field in October 1970.

Field Edit was completed in October 1970.

Field Edit was applied and completed at the Atlantic Marine Center in October 1972.

The final review was performed at the Atlantic Marine Center in March 1982. 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-00180

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

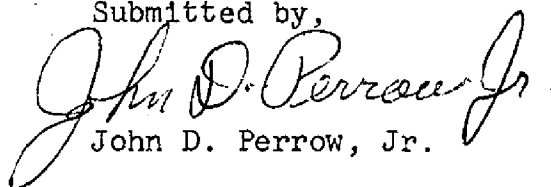
None

-2-

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 70-461-1332

1335

GARDON, 1962

PH-6905

DELAWARE
BAY,
DELAWARE

AUG. 1970

STRIP #3

REHOBOTH BEACH MUNI WT 1962

REHOBOTH 2, 1962

ROUND, 1962

1340

TP-00121

REHOBOTH
BAY

METAL, 1962

INDIAN RIVER C.G. CUPOLA, 1962

INDIAN RIVER C.G. TOWER, 1962

HAPPY, 1962

1345

SMITHSON POINT FLACPOL, 1962
+ LRGION, 1962

TP-00180

38° 35' 00"

75° 06' 30"

COTTON PATCH 2, AZ. WT., 1962

70-461-1348

75° 00' 00"

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

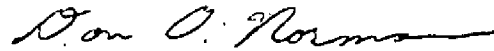
Elevations were taken from USGS topographic quadrangles to meet the vertical control requirements.

-2-

25. Photography

The photography was adequate.

Respectfully submitted,

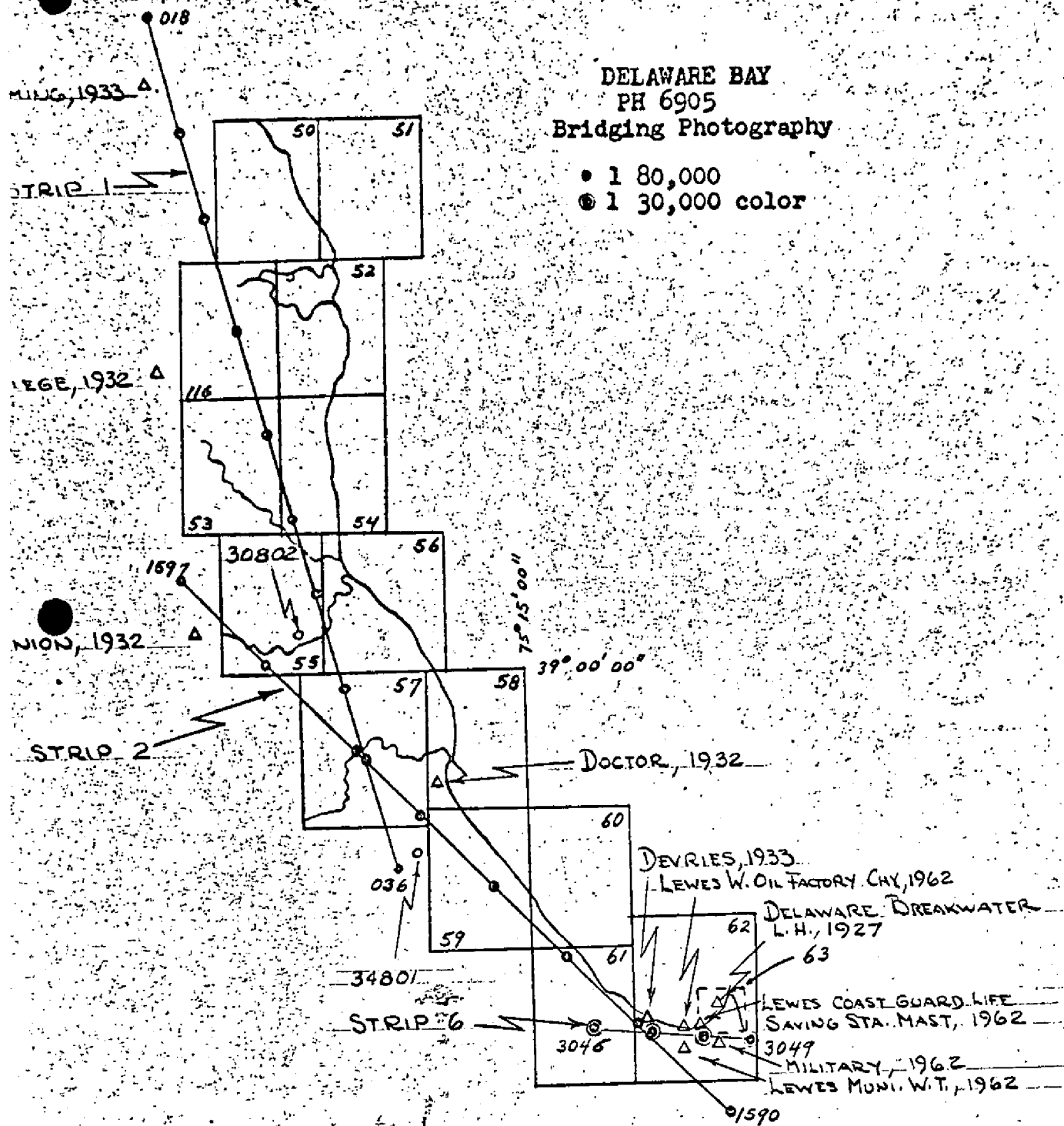


Don O. Norman

Approved and Forwarded,



Henry P. Eichert, Chief
Aerotriangulation Section



LEGEND

▲ CONTROL USED IN ADJUSTMENT

△ CLOSURES OF BRIDGE TO CONTROL SHOWN IN PARENTHESES

△ CONTROL USED AS CHECK

STRIP 1

- ▲ FLEMING, 1933 SUB. A (-40, +1.06)
- ▲ COLLEGE, 1932 RM2 SUB. A (+2.20, -2.51)
- ▲ 30802 TIE POINT
- ▲ UNION STA. A (-6.36, +2.28)
- ▲ DOCTOR, 1932 RM6 (-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 RM6 (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.	GEODEIC DATUM		ORIGINATING ACTIVITY		REMARKS
TP-00180		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		
INDIAN RIVER COAST GUARD TOWER, 1962	G. P. Vol. II p. 130		x=		ϕ 38°36'32.67138"	1007.42 (842.67)	
			y=		λ 75°03'46.74341"	1130.91 (320.79)	
HAPPY, 1962	G. P. Vol. II p. 128		x=		ϕ 38°36'23.80138"	733.92 (1116.17)	
			y=		λ 75°03'53.03556"	1283.14 (168.56)	
INDIAN RIVER COAST GUARD CUPOLA, 1909	G. P. Vol. II p. 131		x=		ϕ 38°38'01.13767"	35.08 (1815.02)	
			y=		λ 75°04'02.45523"	59.38 (1391.82)	
LEGION, 1962	G. P. Vol. II p. 109		x=		ϕ 38°35'17.23880"	531.55 (1318.54)	
			y=		λ 75°04'33.35324"	807.21 (644.89)	
QUILLEN POINT FLAGPOLE, 1962	G. P. Vol. II p. 110		x=		ϕ 38°35'17.57322"	541.87 (1308.22)	
			y=		λ 75°04'33.46616"	809.94 (642.16)	
BETHANY BEACH OBSERVATION TOWER, No. 4, 1962	G. P. Vol. II p. 110		x=		ϕ 38°35'18.41676"	567.88 (1282.21)	
			y=		λ 75°03'41.81231"	1011.98 (440.12)	
			x=		ϕ		
			y=		λ		
			x=		ϕ		
			y=		λ		
			x=		ϕ		
			y=		λ		
			x=		ϕ		
			y=		λ		
COMPUTED BY Arnold L. Shands		DATE 10/12/70	COMPUTATION CHECKED BY S. Kumer		DATE October 19, 1972		
LISTED BY		DATE	LISTING CHECKED BY		DATE		
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE		

COMPILATION REPORT

TP-00180

31. DELINEATION

Delineation was by the Wild B-8 stereoplotter using 1:20,000 scale color photography. The area compiled was extended westward from 75°05'00" to 75°06'30" for a more complete map. All compilation was by office interpretation of the photographs and the use of traverse points made available by the field party for the mean high-water line.

32. CONTROL

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

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

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

35. SHORELINE AND ALONGSHORE DETAILS

The alongshore details were delineated from office interpretation of the color tide predicted low water photographs. The mean high-water line was compiled using traverse points and the compilation photographs.

36. OFFSHORE DETAILS

Offshore details were compiled from office interpretation of the color, tide predicted low water photographs.

37. LANDMARKS AND AIDS

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

38. CONTROL FOR FUTURE SURVEYS

None

TP-00180

39. JUNCTIONS

Refer to the Data Record Form 76-36B, Item 5.

40. HORIZONTAL AND VERTICAL ACCURACY

See Item #32.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with U.S. Geological Survey Quadrangles; Rehoboth Beach, Delaware, and Bethany Beach, Delaware, both are dated 1954, photorevised 1972, scale 1:24,000.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with National Ocean Survey Charts 411, 9th edition, dated May 16, 1970, (corrected through Notice to Mariners 20-1970), scale 1:40,000 and 1219, 23rd edition, dated August 1, 1970, scale 1:80,000.

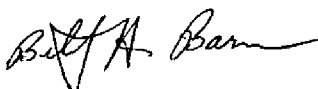
ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

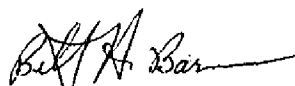
Submitted by:



for Arnold L. Shands
Cartographer

Date: October 16, 1970

Approved:



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

ADDENDUM TO THE COMPILATION REPORT

TP-00180

FIELD EDIT

The field edit was adequate. All questions posed by the compilation section were answered. The field editor identified a "Light" on photograph 70L(C) 1344 which was a daybeacon, as shown in the 1972 East Coast Light List.

FIELD EDIT REPORT
Job PH-6905
INDIAN RIVER INLET TO
CAPE HENLOPEN, DELAWARE
MAP TR-00080

52 ADEQUACY OF COMPILATION

The compilation appears to be good.

A third-order traverse was run between stations HAPPY, 1962 and ROUND RM 2, 1962. This traverse was run to provide hydrographic signal locations at intervals of about one-half mile. Mean high water line measurements were made from each traverse point, and random stations were identified by the reverse method to ascertain accuracy of photogrammetric data.

The above data was submitted to Chief, Division of Photogrammetry on 9 July 1970, Reference Number 62-2-71.

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

All groins, jettys, piers, bulkheads, etc. were carefully checked by the field editor. All necessary changes are noted on the field edit sheet and referenced to a photograph.

The Delaware State Park Service maintains recreational areas along this section of the beach. They consist of parking areas with rest room privileges.

Piling which was shown in Indian River Inlet on Chart 411 have been removed. A very thorough investigation was made for submerged lines crossing the inlet, but none were found.

Distances to the high-water line were measured from each traverse point as stated in item 52.

57 OFFSHORE FEATURES

No offshore features are noted.

58 LANDMARKS AND AIDS

Form 567 was submitted for all nautical landmarks and fixed aids to navigation with the field edit data for 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 not pre-marked for Maps TP-00121 and TP-00080. The photography was not flown with the same tidal accuracy as for the maps from TP-00062 northward.

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.

23 October 1970

Submitted by:

Joseph K. Wilson
Joseph K. Wilson
Chief, Photo Party 62

TP-00180

55 GEOGRAPHIC NAMES

These names appear on parts of both the Rehoboth Beach, Delaware and the Bethany Beach, Delaware Preliminary Names Sheets.

DISPUTED NAMES

BURTON ISLAND(R)

This name is questioned on the Preliminary Names Sheet; it lies to the west of Indian River Yacht Basin, south of Old Ship Channel, and east of Little Ditch.

CEDAR ISLANDS(R)

BIG CEDAR ISLAND

LITTLE CEDAR ISLAND

The chart usage CEDAR ISLANDS is used locally. Few persons can distinguish between Big Cedar Island and Little Cedar Island.

RACK TURN POINT(R)

RAT TURN POINT

ROCK TURN POINT

This dispute is caused by poor pronunciation; RACK TURN POINT is correct.

OBSOLETE NAMES

MELSON ISLAND

This name was not known by any local person contacted, including four men in their seventies. It should be removed from the charts.

REFERENCES

The following persons should be considered as local authorities, even though many others were contacted during the investigation:

Chester Davis - boatman - Ocean View, Delaware 19970

Bill Fogle - marina manager - Box 802 - Rehoboth Beach, Delaware 19971

Fred Wagner - marina owner - Box 813 - Rehoboth Beach, Delaware 19971

Charles W. Ash - commercial fisherman - Dewey Beach, Delaware 19971

Ovide Willett - marina manager - Bethany Beach, Delaware 19930

Vernon C. Cobb - retired motel owner - Fenwick Island, Delaware 19944

Norman E. Calhoun - retired boatman - Ocean View, Delaware 19970

REVIEW REPORT

Shoreline

TP-00180

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. quadrangles: Rehoboth Beach, Delaware, and Bethany Beach, Delaware, both dated 1954, photorevised 1972, scale 1:24,000.

64. COMPARISON WITH HYDROGRAPHIC SURVEYS:

A comparison was made with verified copies of hydrographic surveys H-9136 and H-9154. No significant differences were noted.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with charts 12216, 20th edition, dated June 27, 1981, scale 1:40,000 and chart 12214, 33rd edition, dated June 7, 1980, 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 C. Neterer, Jr.
Lowell Neterer, Jr.
Final Reviewer

Approved for forwarding:

Billy H. Barnes
Billy H. Barnes
Chief, Photogrammetric Branch, AMC

July 29, 1981

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6905 (Delaware Bay, Delaware)

TP-00180

Atlantic Ocean		Indian River Inlet
Bacon Island Creek		Indian River Yacht Basin
Balders Pond		Labens Point
Beach Cove	see field edit report	Little Cedar Island ^{LONG}
Big Bacon Island		Little Ditch
Big Cedar Island ^{LONG}	see field edit report	Little Reedy Island
Big Ditch		Mare Marsh
Big Nose Island		Massey Ditch
Big Reedy Island	see field edit report	Melson Island ^{LONG}
Bottom Hills (Ppl)		Middle Island
Bottom Hills Drain		Old Basin Cove
Broken Marshes		Old Ship Channel
Burton Island		Pasture Point Cove
Bush Island		Quillens Point
Cedar Neck		Raccoon Cove
Hawkins Point		Raccoon Point
Head of the Gut		Rack Turn Point
Indian River Bay		Rehoboth Bay ^{LONG}

Approved by:

Charles E. Harrington

Charles E. Harrington
Chief Geographer, OA/C3x5

July 29, 1981

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6905 (Delaware Bay, Delaware)

TP-00180Rehoboth Marsh *Long.*

Salt Marsh

Sand Island

Sawpit Cove

Southwest Point

Station Cove

Stockley Gut

Long.
Cedar Islands- see field edit report

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

Replaces C&GS Form 567.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

**U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC 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)

☒ TO BE CHARTED ☐ TO BE REVISED ☐ TO BE DELETED	REPORTING UNIT <i>(Field Party, Ship or Office)</i> Coastal Mapping Division AMC, Norfolk, VA	STATE Delaware	LOCALITY Delaware Bay	DATE Oct. 1972
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The following objects HAVE ☒ HAVE NOT ☐ been inspected from seaward to determine their value as landmarks.

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

[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW	
ACTIVITIES	
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 P - Photogrammetric L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 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-2-6-1 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.	

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.										U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION									
NONFLOATING AIDS OR LANDMARKS FOR CHARTS										ORIGINATING ACTIVITY									
TO BE CHARTED ☒ TO BE REVISED ☐ TO BE DELETED		REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Division AMC, Norfolk, VA		STATE Delaware		LOCALITY Delaware Bay		DATE April 1982		☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ PHOTO FIELD PARTY ☒ COMPILATION ACTIVITY ☐ FINAL REVIEWER ☐ QUALITY CONTROL & REVIEW GRP. ☐ COAST PILOT BRANCH (See reverse for responsible personnel)									
The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.		JOB NUMBER PH-6905		SURVEY NUMBER TP-00180		DATUM NA 1927				METHOD AND DATE OF LOCATION (See instructions on reverse side)									
CHARTING NAME		DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)		LATITUDE ° / ' " D.M. Meters		LONGITUDE ° / ' " D.P. Meters		OFFICE		FIELD		CHARTS AFFECTED							
	Rehoboth Bay																		
DAYBEACON	Channel Daybeacon 5	38 39.8	75 06.1									12216 12214							
DAYBEACON	Channel Daybeacon 7	38 39.3	75 06.2									12216 12214							
LIGHT	Channel Light 9	38 39.5	75 06.4									12216 12214							
DAYBEACON	Channel Daybeacon 11	38 39.5	75 06.4									12216 12214							
DAYBEACON	Channel Daybeacon 12	38 38.2	75 06.2									12216 12214							
DAYBEACON	Channel Daybeacon 13	38 38.0	75 06.1									12216 12214							
DAYBEACON	Channel Daybeacon 15	38 37.8	75 06.1									12216 12214							
DAYBEACON	Channel Daybeacon 17	38 37.6	75 06.0									12216 12214							
DAYBEACON	Channel Daybeacon 18	38 37.3	75 05.8									12216 12214							

RESPONSIBLE PERSONNEL		ORIGINATOR	
TYPE OF ACTION	NAME		
OBJECTS INSPECTED FROM SEAWARD		☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER (Specify)	
POSITIONS DETERMINED AND/OR VERIFIED	Susan Kumer	FIELD 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 1. 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 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	
**FIELD POSITIONS are determined by field observations based entirely upon ground survey methods. **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 OR LANDMARKS FOR CHARTS				ORIGINATING ACTIVITY			
REPORTING UNIT (Field Party, Ship or Office)		STATE		LOCALITY		DATE		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED		ORIGINATING ACTIVITY			
TO BE CHARTED ☒ TO BE REVISED ☐ TO BE DELETED		Coastal Mapping Division AMC, Norfolk, VA		Delaware		Delaware Bay		70 L(C) 1343 8 April 1970		12216 12214		☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ PHOTO FIELD PARTY ☒ COMPILATION ACTIVITY ☐ FINAL REVIEWER ☐ QUALITY CONTROL & REVIEW GRP. ☐ COAST PILOT BRANCH (See reverse for responsible personnel)			
OPR PROJECT NO.		JOB NUMBER		SURVEY NUMBER		DATUM		POSITION		CHARTS AFFECTED					
		PH-6905		TP-00180		NA 1927									
CHARTING NAME		DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)		LATITUDE		LONGITUDE		OFFICE		FIELD					
				° / ' D. M. Meters		° / ' D. P. Meters									
	Rehoboth Bay														
DAYBEACON	Channel Daybeacon 19	38 37.2	75 05.9									12216 12214			
DAYBEACON	Channel Daybeacon 20	38 37	75 05	13.92 429	46.99 1136.9			70 L(C) 1343 8 April 1970	P-F-L June 12, 1970			12216 12214			
DAYBEACON	Channel Daybeacon 21	38 37.9	75 06.1									12216 12214			
DAYBEACON	Channel Daybeacon 22	38 37.9	75 06.1									12216 12214			
DAYBEACON	Channel Daybeacon 23	38 37.8	75 06.0									12216 12214			
LIGHT	Indian River Bay Channel Light 19A	38 36.5	75 06.1									12216 12214			
	Indian River Inlet														
RADIOBEACON	Radio beacon	38 36.6	75 04.1									12216 12214			
LIGHT	South Jetty Light	38 36.5	75 03.5									12216 12214			

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	FIELD 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'	
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