

TP 00116

TP 00116

NOAA FORM 76-35 (3-76)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
THIS MAP WILL NOT BE FIELD EDITED	
Map No. TP-00116	Edition No. 1
Job No. PH-6905	
Map Classification CLASS III (FINAL)	
Type of Survey SHORELINE	
LOCALITY	
State DELAWARE	
General Locality DELAWARE BAY	
Locality LEIPSIE RIVER	
1969 TO 19	
REGISTRY IN ARCHIVES	
DATE	

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

DESCRIPTIVE REPORT - DATA RECORD

☒ ORIGINAL

MAP EDITION NO. (1)

☐ RESURVEY

MAP CLASS III (Final)

☐ REVISED

JOB PH-6905

PHOTOGRAMMETRIC OFFICE

Coastal Mapping Division, AMC
Norfolk, VA

OFFICER-IN-CHARGE

Roy Matsushige, CDR

LAST PRECEDING MAP EDITION

TYPE OF SURVEY

JOB PH-

☐ ORIGINAL

MAP CLASS

☐ RESURVEY

SURVEY DATES:

☐ REVISED

19 TO 19

I. INSTRUCTIONS DATED

1. OFFICE

Aerotriangulation December 10, 1969
Compilation May 12, 1970
Amendment I April 1, 1971
Field Edit Cancellation December 14, 1979

2. FIELD

Field September 26, 1969
Amendment 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	D. Norman	Apr. 1970
METHOD: Analytic	LANDMARKS AND AIDS BY		
2. CONTROL AND BRIDGE POINTS	PLOTTED BY	J. Dempsey	Mar. 1971
METHOD: Coradomat	CHECKED BY	E. Homick	Mar. 1971
3. STEREOSCOPIC INSTRUMENT	PLANIMETRY BY	H. Gann	Mar. 1972
COMPILATION	CHECKED BY	L. Neterer, Jr.	Mar. 1972
INSTRUMENT: Wild B-8	CONTOURS BY	NA	
SCALE: 1:10,000	CHECKED BY	NA	
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	B. Wilson	April 1972
	CHECKED BY	R. Pate	April 1972
METHOD: Smooth Draft	CONTOURS BY	NA	
	CHECKED BY	NA	
SCALE: 1:10,000	HYDRO SUPPORT DATA BY	B. Wilson	Mar. 1972
	CHECKED BY	R. Pate	April 1972
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	R. Pate	April 1972
6. APPLICATION OF FIELD EDIT DATA	BY	None	
	CHECKED BY	None	
7. COMPILATION SECTION REVIEW Class III	BY	L. O. Neterer, Jr.	Sept. 1981
8. FINAL REVIEW Class III	BY	L. O. Neterer, Jr.	Sept. 1981
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

Chief, Phot. and
Imagery Unit
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 SURVEYTP-00116
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-9 "M" Wild RC-8 "E"		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE	<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT
<input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				Eastern	
				75th	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
69 E(C) 2996 thru 3000	23 Oct. 1969	15:14	1:20,000	+0.5 ft. above MLW	
Camera focal length; E = 152.71 mm, M = 88.20 mm					
REMARKS					

2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high-water line was compiled from photo interpretation of the above listed photography.

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

The mean low-water line was compiled from the above listed photographs.

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-00050	TP-00052	TP-00053	No Survey
REMARKS			

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYTP-00116
HISTORY OF FIELD OPERATIONSI. ☒ FIELD INSPECTION OPERATION (Premarking) ☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. K. Wilson	Oct. 1970
2. HORIZONTAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	None None None
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	NA NA NA
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY LOCATED (Field Methods) BY IDENTIFIED BY	None None 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 ☒ 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)

None

NOAA FORM 76-36D (3-72)	TP-00116 RECORD OF SURVEY USE	U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
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I. MANUSCRIPT COPIES				
COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete pending Field Edit	April 1972	Class III		
Final Review, Class III	Sept. 1981	Final, Class III map Field Edit Canceled		

II. LANDMARKS AND AIDS TO NAVIGATION			
1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH			
NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
2. <input type="checkbox"/> REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____			
3. <input type="checkbox"/> REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____			

III. FEDERAL RECORDS CENTER DATA	
1. <input type="checkbox"/> BRIDGING PHOTOGRAPHS; <input checked="" type="checkbox"/> DUPLICATE BRIDGING REPORT; <input checked="" type="checkbox"/> COMPUTER READOUTS. 2. <input checked="" type="checkbox"/> CONTROL STATION IDENTIFICATION CARDS; <input type="checkbox"/> FORM NOS. 76-40 76-40 SUBMITTED BY FIELD PARTIES. 3. <input type="checkbox"/> SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS:	4. <input checked="" type="checkbox"/> DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: <u>Nov 1982</u>

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

Official Mileage for Cost Accounts

Sheet No.-Area Sq.Mi.

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

TOTAL 54

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

RBN
DELAWARE
298
H+04 & ev 6m

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-00116

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 Inlet, 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.

No contemporary hydrographic survey was accomplished in the area common to this Final Class III map.

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 was provided in October 1969 for aerotriangulation using Panchromatic film with the "M" camera at 1:80,000 scale.

Compilation photography was taken using color film in the "E" camera at 1:20,000 scale.

Analytic aerotriangulation was performed at the Washington Science Center.

Compilation was performed at the Atlantic Marine Center in March 1972. No copies of this Class III map were submitted for field edit.

The final review was performed at the Atlantic Marine Center in September 1981. Cancellation of field edit requires this map to be registered as a final Class III map, compiled from office interpretation of the 1969 photography.

The descriptive report contains all pertinent information used to compile the final Class III map.

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

FIELD INSPECTION

TP-00116

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.

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,

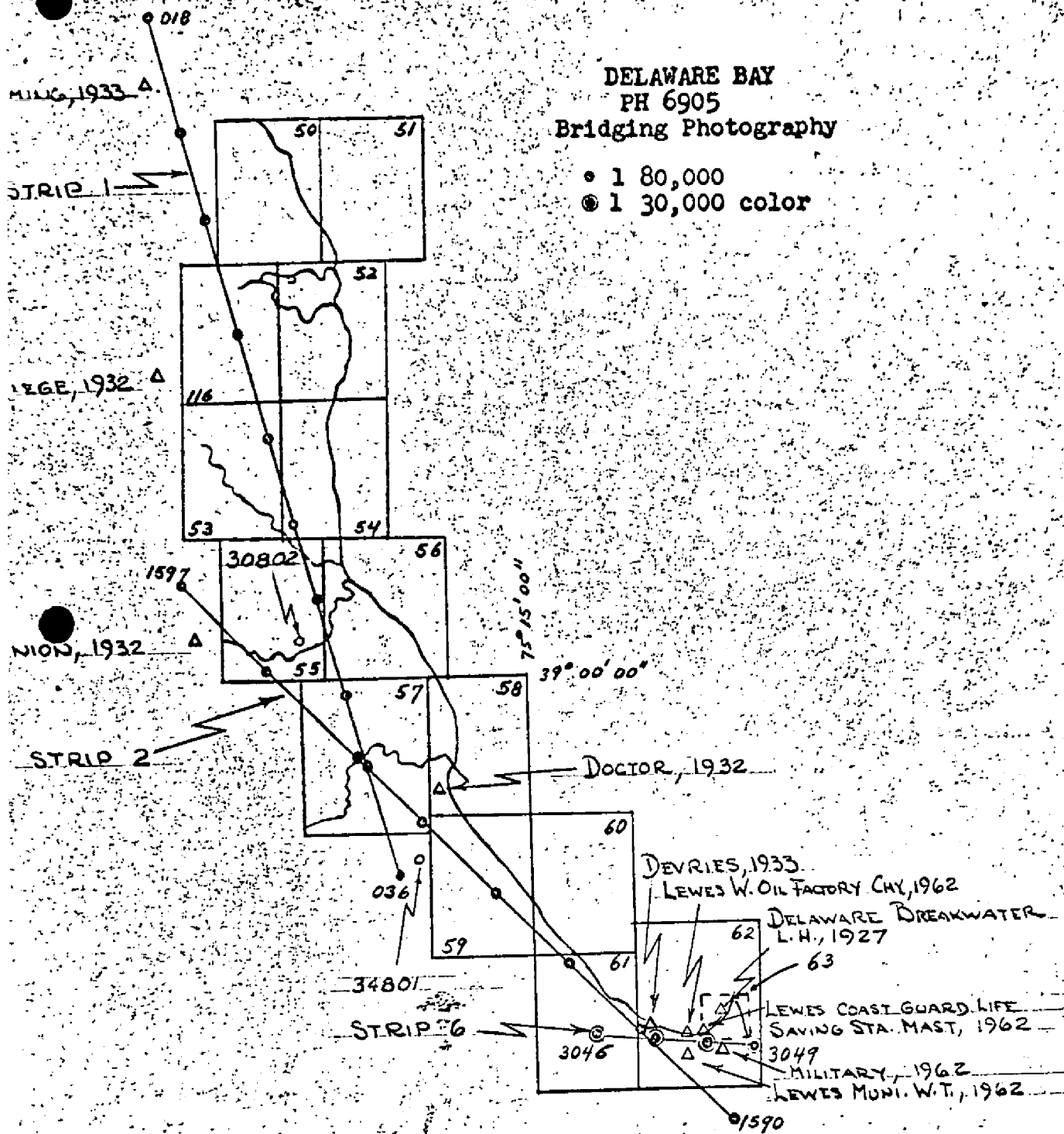
Don O. Norman

Don O. Norman

Approved and Forwarded,

Henry P. Eichert

Henry P. Eichert, Chief
Aerotriangulation Section



LEGEND

Page 1211

▲ 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)
- ▲ 30502 TIE POINT
- △ UNION STA. A (-6.36, +2.20)
- △ DOCTOR, 1932 RM6 (-4.23, +6.75)
- ▲ 34801 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. U (-.81, +.45)
- △ DELAWARE BREAKWATER L.H., 1927 (-.76, +.39)

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODETTIC DATUM		ORIGINATING ACTIVITY	
					NA 1927	COASTAL MAPPING DIVISION, AMC		
					COORDINATES IN FEET	GEOGRAPHIC POSITION		REMARKS
					STATE	ϕ LATITUDE	λ LONGITUDE	
					ZONE			
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-00116

31. DELINEATION

Delineation was by the Wild B-8 stereoplotting instrument and by graphic methods. Common points were selected and transferred to 1:20,000 scale 1969 color photography from 1:80,000 scale panchromatic photography during the bridging process.

32. CONTROL

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

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 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-00116

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 Quadrangles: Little Creek, Delaware, and Dover, Delaware; both have a scale of 1:24,000 and are dated 1956.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following National Ocean Survey Chart: No. 1218, scale 1:80,000, 16 edition, dated October 25, 1969.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted by:

B. H. Barn
for Bernice Wilson
Cartographic Technician

Date: April 4, 1972

Approved:

for *B. H. Barn*
Albert C. Rauck, Jr.
Chief, Coastal Mapping Section

REVIEW REPORT

SHORELINE

TP-00116

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: Little Creek, Delaware, and Dover Delaware; both are 1:24,000 scale and are dated 1956.

No significant differences were noted.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

No contemporary hydrographic survey was conducted in the area pertaining to this final Class III map.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with N.O.S. Chart 12304, 27th edition, March 28, 1981, 1:80,000 scale.

No significant differences were noted.

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.
Lowell O. Neterer, Jr.
Final Reviewer

September 24, 1981

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-00116

Bay Gut

Boat Gut

Devers Gut

Dyke Branch

Flat Gut

Green Creek

Herring Branch

Leipsic

Leipsic River

Little Fork

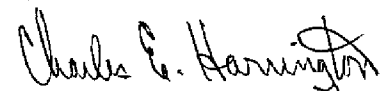
Muddy Branch

Needhams Island

Ragged Island

Raymond Gut

Approved by:



Charles E. Harrington
Chief Geographer

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

