

TP-00056

TP-00056

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-00056	Edition No. 1
Job No. PH-6905	
Map Classification Class III (FINAL)	
Type of Survey SHORELINE	
LOCALITY	
State DELAWARE	
General Locality DELAWARE BAY	
Locality BOWERS BEACH	
1969 TO 19	
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.		TYPE OF SURVEY		SURVEY TP-00056	
DESCRIPTIVE REPORT - DATA RECORD				<input checked="" type="checkbox"/> ORIGINAL		MAP EDITION NO. (1)	
				<input type="checkbox"/> RESURVEY		MAP CLASS III, Final	
				<input type="checkbox"/> REVISED		JOB PH-6905	
PHOTOGRAMMETRIC OFFICE				LAST PRECEDING MAP EDITION			
Coastal Mapping Division Atlantic Marine Center, Norfolk, VA				TYPE OF SURVEY		JOB PH-_____	
OFFICER-IN-CHARGE				<input type="checkbox"/> ORIGINAL		MAP CLASS _____	
Roy Matsushige, CDR				<input type="checkbox"/> RESURVEY		SURVEY DATES:	
				<input type="checkbox"/> REVISED		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 I April 1, 1971							
Memo (Cancel field edit) December 14, 1979							
Memo (Completion Schedule) June 22, 1981							
II. DATUMS							
1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN				OTHER (Specify)			
2. VERTICAL: <input checked="" type="checkbox"/> MEAN HIGH-WATER <input checked="" type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL				OTHER (Specify)			
3. MAP PROJECTION				4. GRID(S)			
Polyconic				STATE Delaware		ZONE	
5. SCALE 1:10,000				STATE		ZONE	
III. HISTORY OF OFFICE OPERATIONS							
OPERATIONS				NAME		DATE	
1. AEROTRIANGULATION BY				D. Norman		April 1970	
METHOD: Analytic LANDMARKS AND AIDS BY							
2. CONTROL AND BRIDGE POINTS PLOTTED BY				J. Dempsey		May 1970	
METHOD: Coradomat CHECKED BY				E. Homick		May 1970	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY				R. White		Oct. 1970	
COMPILATION CHECKED BY				R. J. Pate		Oct. 1970	
INSTRUMENT: Wild B-8 CONTOURS BY				NA			
SCALE: 1:10,000 CHECKED BY				NA			
4. MANUSCRIPT DELINEATION PLANIMETRY BY				R. White		Nov. 1970	
CHECKED BY				L. F. Beugnet		Nov. 1970	
METHOD: Smooth Drafted CONTOURS BY				NA			
CHECKED BY				NA			
SCALE: 1:10,000 HYDRO SUPPORT DATA BY				R. White		Nov. 1970	
CHECKED BY				L. F. Beugnet		Nov. 1970	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY				L. F. Beugnet		Nov. 1970	
6. APPLICATION OF FIELD EDIT DATA BY				None			
CHECKED BY				None			
7. COMPILATION SECTION REVIEW Class III BY				L. F. Beugnet		Nov. 1970	
8. FINAL REVIEW Class III BY				L. O. Neterer, Jr.		Nov. 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	

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYTP-00056
COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-9 "M"
Wild RC-8 "E" and "K"TYPES OF PHOTOGRAPHY
LEGEND

TIME REFERENCE

TIDE STAGE REFERENCE

- ☒ PREDICTED TIDES
☐ REFERENCE STATION RECORDS
☒ TIDE CONTROLLED PHOTOGRAPHY

- (C) COLOR X
(P) PANCHROMATIC
(I) INFRARED X

ZONE

Eastern

☒ STANDARD

MERIDIAN

75th

☐ DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
+69E(C) 2911 thru 2912	23 Oct. 69	13:44	1:20,000	0.0 ft. above MLW
+69E(C) 2951 thru 2955	23 Oct. 69	14:13	1:20,000	0.7 ft. below MLW
+69E(C) 3011	23 Oct. 69	15:29	1:20,000	0.4 ft. above MLW
* +69E(C) 3069 thru 3072	24 Oct. 69	11:18	1:40,000	3.2 ft. above MLW
* +69K(I) 4513 thru 4516	23 Oct. 69	14:13	1:20,000	0.1 ft. below MLW
* +69K(I) 4550 thru 4552	23 Oct. 69	15:00	1:20,000	0.1 ft. above MLW
* +69K(I) 4683 thru 4685	23 Oct. 69	15:29	1:20,000	0.4 ft. above MLW
* +69K(I) 4690 thru 4693	26 Oct. 69	11:03	1:20,000	5.4 ft. above MLW
* +69K(I) 4697 thru 4699	26 Oct. 69	11:12	1:20,000	5.2 ft. above MLW
focal length: E = 152.71 mm, K = 151.77 mm, M = 88.20				

REMARKS *Centers not shown on manuscript

+Tide coordinated photography

xBridging photography used in the Wild B-8 stereoplotter

2. SOURCE OF MEAN HIGH-WATER LINE:

The mean high-water line was compiled from the above listed tide coordinated infrared mean high-water photography.

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

The mean low-water line was compiled from the above listed tide coordinated infrared mean low-water photography.

4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
TP-00054	No Survey	TP-00057 & TP-00058	TP-00055

REMARKS

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

TP-00056

HISTORY OF FIELD OPERATIONS.

I. ☒ 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 ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	
	None	
	None	
3. VERTICAL CONTROL	RECOVERED BY ESTABLISHED BY PRE-MARKED OR IDENTIFIED BY	
	J. K. Wilson	Oct. 1969
	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 BY <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		2. VERTICAL CONTROL IDENTIFIED	
None		None	
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: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE		6. BOUNDARY AND LIMITS: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE	
7. SUPPLEMENTAL MAPS AND PLANS			
None			
8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)			
9 - forms C & GS 524			
2 - forms C & GS 526			
3 forms C & GS 685A			

NOAA FORM 76-36C
(3-72)

NOAA FORM 76-36C
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEYTP-00056
HISTORY OF FIELD OPERATIONS.I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY		
2. HORIZONTAL CONTROL	RECOVERED BY J. K. Wilson	Aug. 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 None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY BY <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 N.A.	
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: <input type="checkbox"/> REPORT <input checked="" type="checkbox"/> NONE		6. BOUNDARY AND LIMITS: <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> NONE	

7. SUPPLEMENTAL MAPS AND PLANS

None

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

1 form C & GS 526

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

HISTORY OF FIELD OPERATIONS.

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY		
2. HORIZONTAL CONTROL	RECOVERED BY J. K. Wilson	July 1971
	ESTABLISHED BY J. K. Wilson	July 1971
	PRE-MARKED OR IDENTIFIED BY None	
3. VERTICAL CONTROL	RECOVERED BY NA	
	ESTABLISHED BY NA	
	PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY None	
	LOCATED (Field Methods) BY None	
	IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY BY <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)

1 form C & GS 525

1 form C & GS 526

NOAA FORM 76-36C
(3-72)

NOAA FORM 76-36D (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		
TP-00056 RECORD OF SURVEY USE				
I. MANUSCRIPT COPIES				
COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete pending field edit	June 1972	Class III		
Final Review, Class III	July 1981	Final Class III map No field edit performed		
II. LANDMARKS AND AIDS TO NAVIGATION				
1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH				
NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS	
2 <i>Forms</i>		<i>Nov 1982</i>	Appropriate forms (76-40) are attached with this Descriptive Report	
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 checked="" type="checkbox"/> FORM NOS ⁷⁶⁻⁴⁰ 501 SUBMITTED BY FIELD PARTIES. 3. <input checked="" type="checkbox"/> SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C. ACCOUNT FOR EXCEPTIONS: Duplicate forms of final 76-40 forms, 9 forms C+GS524, 4 forms C+GS562, 3 forms C+GS685A and 1 form C+GS525 4. <input checked="" type="checkbox"/> DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: <i>Nov 1982</i>				
IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)				
SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT		
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT		
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT		

Official Mileage for Cost Accounts

Sheet No.-Area Sq.Mi.

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

TOTAL 54

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

FIVE FATHOM BANK
238
H+01 & ev 6m

DELAWARE
238
H+04 & ev 6m

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-00056

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. Tide coordinated infrared high and low water photography was taken using the "K" camera at 1:20,000 scale; the low water infrared photographs were taken in tandem with the hydro support photography.

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

Compilation was performed at the Atlantic Marine Center in November 1970. No copies of the Class III map were submitted for field edit.

The final review was performed at the Atlantic Marine Center in November of 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.

This 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-00056

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,

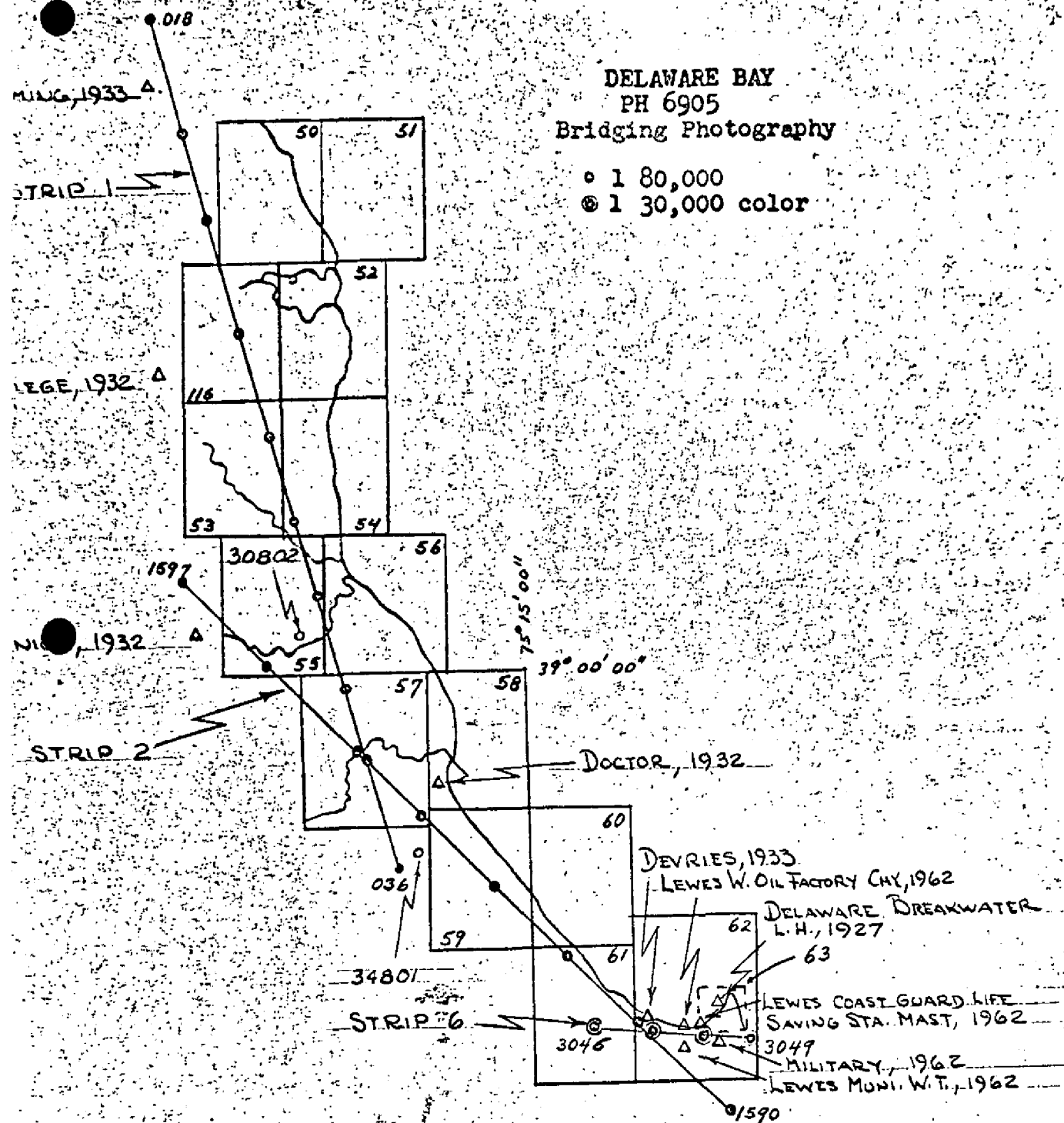


Don O. Norman

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, +2.20)
- ▲ DOCTOR, 1932 RM6 (-4.23, +6.75)
- ▲ 34901 TIE POINT (+1.92, -.57)

STRIP 2

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

STRIP 6

- ▲ DEVRIES, 1962 RM (0.0, 0.0)
- ▲ DEVRIES, 1933 SUB. A (-.02, -.11)
- ▲ LEWES COAST GUARD LIFE SAVING STA. MAST SUB. A (+1.05, 4.06)
- ▲ LEWES MUNI. WATER TANK, 1962 (+.75, -1.22)
- ▲ LEWES W. OIL FACTORY CAY, 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.	STATION NAME	JOB NO.	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODETTIC DATUM NA 1927		ORIGINATING ACTIVITY	
					COORDINATES IN FEET STATE ZONE	GEOGRAPHIC POSITION ϕ LATITUDE λ LONGITUDE	REMARKS	
TP-00056	MURDERKILL RIVER REAR RANGE, LIGHT (DEL.) 1933	PH-6905	G. P. Vol. #1 Pg. 63		X=	ϕ 39°03'17.991"	Coastal Mapping Division, AMC	554.8 (1295.4)
					Y=	λ 75°24'23.951"		575.9 (866.8)
					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		
					X=	ϕ		
					Y=	λ		
COMPUTED BY R. White					COMPUTATION CHECKED BY C. Blood			DATE 4/30/70
LISTED BY					LISTING CHECKED BY			DATE
HAND PLOTTING BY					HAND PLOTTING CHECKED BY			DATE

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

COMPILATION REPORT

TP-00056

31. DELINEATION

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

32. CONTROL

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

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

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

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

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

38. CONTROL FOR FUTURE SURVEYS

None

TP-00056

39. JUNCTIONS

See the attached 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:

Bennetts Pier, Delaware, scale 1:24,000, dated 1956.

Frederica, Delaware, scale 1:24,000, dated 1956.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following National Ocean Survey chart:

No. 1218, scale 1:80,000, dated October 25, 1969, 16th edition, (corrected through Notice to Mariners 43-1969).

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted by:

R. White

R. White

Cartographic Technician

Date: November 2, 1970

Approved:

for *Albert C. Rauck, Jr.*

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

REVIEW REPORT

SHORELINE

TP-00056

61. GENERAL STATEMENT:

See Summary included with this report for final Class III 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; BENNETTS PIER, DELAWARE, and FREDERICA, DELAWARE both 1:24,000 scale and dated 1956.

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 the project instructions, and the requirements for the National Standards of Map Accuracy.

Submitted by:

Lowell O. Neterer, Jr.

Lowell O. Neterer, Jr.

Final Reviewer

November 10, 1981

Approved for forwarding

Billy H. Barnes

Billy H. Barnes

Chief, Photogrammetric Branch

July 28, 1981

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6905 (Delaware Bay, Delaware)

TP-00056

Baucumbrig Gut

Bennetts Pier

Big Stone Beach (Ppl)

Bowers Beach

Clark Point

Delaware Bay

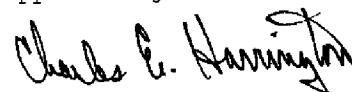
Milford Neck

Murderkill River

St. Jones River

South Bowers

Approved by:



Charles E. Harrington
Chief Geographer, OA/C3x5

Information of Dissemination of Project Material

PH-6905

Delaware Bay

NATIONAL ARCHIVE/FEDERAL RECORD CENTER

Computer Readout

Control Station Identification Cards

Field Edit Ozalids

Field Photographs

NOAA Form 76-41 (Descriptive Report Control Record)

Project Diagrams

Plot Report

Bureau Archives

Descriptive Report

Registered Maps

Reproduction Division

8x Reduction Negative of Each Maps

Office of Staff Geographer

Geographer Names Standard

Replaces C&GS Form 567.

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

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)

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
Norfolk, VA	Delaware	Delaware Bay West Side	1970

The following objects	HAVE <input type="checkbox"/>	HAVE NOT <input type="checkbox"/>	been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER
	PH-6905	TP-00056

DATUM	NA 1927	POSITION
-------	---------	----------

METHOD AND DATE OF LOCATION (See instructions on reverse side)	CHARTS

[illegible]

TOWER	Beach, 1944 a recovered topographic station	39000	0.74	79 19	43.92	Oct. 23, 1969	Recovered Oct. 1, 1969	12304
			23		1057			

[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	Richard R. White
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 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	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.	

Replaces C&GS Form 567.

NONFLOATING AIDS

**U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
FOR CHARTS**

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)

REPORTING UNIT (If field Party, Ship or Office)	STATE	LOCALITY	DATE
Atlantic Marine Center Norfolk, VA	Delaware	Delaware Bay West Side	1970

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.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM	METHOD AND DATA (See instructions)
	PH-6905	TP-00056	NA 1927	POSITION

CHARTING NAME	DESCRIPTION <i>(Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)</i>	LATITUDE		LONGITUDE		OFFICE
		° /	//	° /	//	
			D.M. Meters		D.P. Meters	

Delaware Bay (West Side)					
-----------------------------	--	--	--	--	--

LIGHT	Murderkill River Range Front Light (Topographic Station position)	39 03	26.49 817	75 23	57.64 1386	Not Vis
-------	--	-------	--------------	-------	---------------	---------

LIGHT	Murderkill River Range Rear Light (Murderkill River Range Light, 1933)	39 03	17.991	75 24	23.951	Oct. 23, 1966
					575.9	69 E (C)2911
					554 8	

LIGHT	Murderkill River Entrance Approach Light 1 *	39 03.8	75 22.8	Not in place at time of 1980

[illegible][illegible][illegible][illegible][illegible][illegible][illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	Richard R. White
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64.)	
OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) B. Photogrammetric field positions* require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 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	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.	

