

12093

12093

FORM C&amp;GS-504

U.S. DEPARTMENT OF COMMERCE  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey SHORELINE (PHOTOGRAMMETRIC)Field No. \_\_\_\_\_ Office No. T-12093

## LOCALITY

State Maryland - VirginiaGeneral locality ChincoteagueLocality Calppen Bay to Rum Harbor Cove1962-1963

## CHIEF OF PARTY

W. M. Reynolds Chief of Field Party

M. J. Tonkel Baltimore Dis. Office

## LIBRARY &amp; ARCHIVES

DATE \_\_\_\_\_

## DESCRIPTIVE REPORT - DATA RECORD

T - 12093

PROJECT NO. (II):

PH-6103

FIELD OFFICE (II):

Snow Hill, Maryland

CHIEF OF PARTY

W. M. Reynolds

PHOTOGRAMMETRIC OFFICE (III):

Baltimore, Maryland

OFFICER-IN-CHARGE

M. J. Tonkel

INSTRUCTIONS DATED (II) (III):

II 20 November 1961  
III 24 October 1962  
26 July 1963 - Amendment I

METHOD OF COMPILATION (III):

Kelsh Plotter

MANUSCRIPT SCALE (III):

1:10,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):

1:3,000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

GEOGRAPHIC DATUM (III):

NA 1927

VERTICAL DATUM (III): MHW

~~MEAN LOW WATER~~ EXCEPT AS FOLLOWS:

Elevations shown as (25) refer to mean high water

Elevations shown as (5) refer to sounding datum

i.e., mean low water or mean lower low water

REFERENCE STATION (III):

BOUNDARY MONUMENT, POPE ISLAND (Md. &amp; Va.), 1907

LAT.:

38°01'33.912"

LONG.:

75°15'24.012"

☒ ADJUSTED☐ UNADJUSTED

PLANE COORDINATES (IV):

STATE

ZONE

Y = 74,992.24

X = 1,302,197.98

Maryland

ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (II) FIELD PARTY, (III) PHOTOGRAMMETRIC OFFICE,  
OR (IV) WASHINGTON OFFICE.

WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.

FORM C&GS-181b  
(3-66)U.S. DEPARTMENT OF COMMERCE  
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT - DATA RECORD

FIELD INSPECTION BY (II):  W. M. Reynolds		DATE:  Mar-May 1962
MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):  Kelsh Plotter with field inspection photographs		
PROJECTION AND GRIDS RULED BY (IV):  A. Roundtree		DATE  9-13-62
PROJECTION AND GRIDS CHECKED BY (IV):  I. Y. Fitzgerald		DATE  9-13-62
CONTROL PLOTTED BY (III):  L. A. Senasack		DATE  11-16-62
CONTROL CHECKED BY (III):  L. O. Neterer		DATE  11-16-62
RADIAL PLOT OR STEREOSCOPIC CONTROL EXTENSION BY (III): L. W. Fritz L. A. Senasack		DATE 10-31-62 6-6-63
STEREOSCOPIC INSTRUMENT COMPILATION (III):	PLANIMETRY  L. O. Neterer	DATE  11-28-62
	CONTOURS	DATE
MANUSCRIPT DELINEATED BY (III):  J. Councill		DATE  2-6-63
SCRIBING BY (III):  J. Cregan		DATE  5-27-64
PHOTOGRAMMETRIC OFFICE REVIEW BY (III):  E. L. Rolle		DATE  5-27-64
REMARKS:  		

DESCRIPTIVE REPORT - DATA RECORD

AREA (KIND OR SOURCE) (III):

Wild RC-8

PHOTOGRAPHS (III)

NUMBER	DATE	TIME	SCALE	STAGE OF TIDE
61 S 9300 - 9301	25 May 1961	0908	1:30,000	0.4 ft. above MLW
62W 3761 - 3764	28 Apr. 1962	0930	1:30,000	0.3 ft. above MLW
62W 3787 - 3788	28 Apr. 1962	0945	1:30,000	0.6 ft. above MLW
62 S 3197 - 3199	24 Mar. 1962	1025	1:15,000	2.6 ft. above MLW

TIDE (III)

	RATIO OF RANGES	MEAN RANGE	SPRING RANGE
REFERENCE STATION: Sandy Hook, New Jersey		4.6	5.6
COORDINATE STATION: Franklin City, Maryland	0.22	1.0	1.2
SUBORDINATE STATION: North Beach Coast Guard Station, Md.		3.4	4.1

WASHINGTON OFFICE REVIEW BY (IV): Leo F. Beugnet, AMC

DATE:  
Jan. 1972

PROOF EDIT BY (IV):

DATE:

NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (II): 3

RECOVERED:  
0

IDENTIFIED:  
0

NUMBER OF BM(S) SEARCHED FOR (II): 0

RECOVERED:  
0

IDENTIFIED:  
0

NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): 0

NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): 0

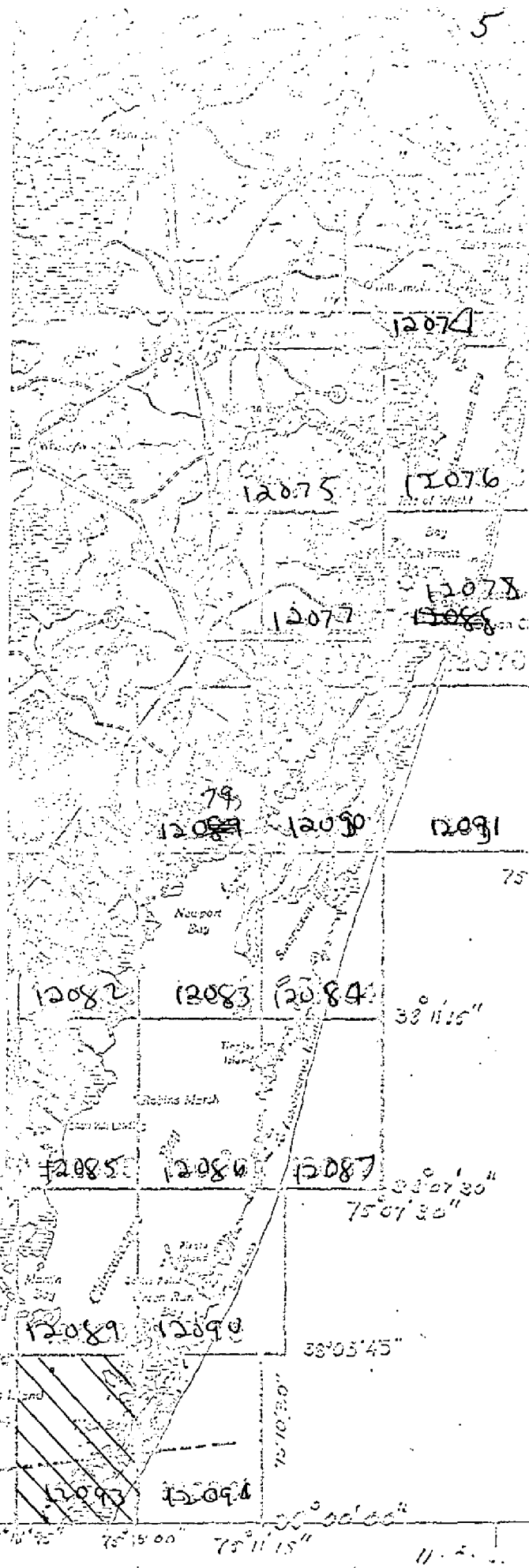
REMARKS:

COMPILATION RECORD	COMPLETION DATE	REMARKS
Compilation complete <del>XXXXXXXXXX</del>	Feb. 1963	
Final Review	Jan. 1972	

CHESAPEAKE BAY  
PROJECT FOR GIS  
PLANIMETRIC MAPPING  
SCALE, 1:10,000

OFFICIAL MILEAGE

SHEET NO.	AREA SQ. MI.	LINEAR MI. SHORELINE
12074	16	30
12075	16	13
12076	4	32
12077	14	14
12078	5	20
12079	14	9
12080	14	28
12081	14	10
12082	14	3
12083	2	12
12084	3	16
12085	3	8
12086	3	4
12087	3	10
12088	3	14
12089	3	12
12090	14	14
12091	14	5
12092	3	14
12093	3	12
12094	3	12
TOTAL		292



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT T-12093

Shoreline survey T-12093 covers a part of the east shore of Chincoteague Bay in the vicinity of Pitts and Pope Islands. It is one of twenty-one similar surveys in project PH-6103. The primary purpose of the survey was to provide new shoreline for nautical charts and special charts for the State of Maryland, Department of Tidewater Fisheries.

Field work preceding compilation consisted of recovery and identification of horizontal control, field and shoreline inspection, selection of landmarks for charts and location of fixed aids to navigation.

Compilation was at 1:10,000 scale using panchromatic photography. The manuscript was a vinylite sheet 3 minutes 45 seconds in latitude by 3 minutes 45 seconds in longitude. The manuscript was subsequently scribed and reproduced on cronaflex. Final review was in the Atlantic Marine Center in January 1972. One cronaflex positive and a negative are forwarded for record and registry.

FIELD INSPECTION REPORT  
MAPS T-12090, T-12093, and T-12094  
PROJECT PH-6103

2. Areal Field Inspection.

These maps are located along the eastern coasts of Maryland and Virginia. The land area consists of a part of Assateague Island. This island is a long narrow stretch of sand with marsh along the westerly side. It separates the Atlantic Ocean and Chincoteague Bay. The island is not inhabited with year round residents. There are a few cottages located on the island and these are used during the summer season only.

Chincoteague Bay, which comprises the westerly part of these maps, is used mainly by clam, crab and oyster fishermen.

Field Inspection is believed complete and was performed on the following photographs; 61W6248 through 61W6259, 61W6277 through 61W6286, 62S3175 through 62S3177, and 62S3188 through 62S3201.

The photography was of good quality and no difficulty was encountered in their interpretation in the field.

Field inspection of the bay side of the maps was performed on the 61W series of photographs. The photographs are ratio prints at 1:10,000 scale.

The area suffered a severe storm during March 1962. The storm did little damage or change to the inside shoreline. The outside shoreline suffered considerable damage and was re-photographed after the storm. These photographs were used to locate the mean high water line along the ocean side of the maps. They are the 62S series and are contact prints at 1:15,000 scale.

3. Horizontal Control.

All Coast and Geodetic Survey Control was searched for. Form 526 is submitted for all stations searched for. Horizontal Control was identified in accordance with project instructions.

One station, HOPE 1961 was established south of map T-12093. This station was established by three point fix with a check angle. Observations and computations for establishing this station are enclosed with this data.

The following stations were reported lost:

T-12090	T-12093
Green Run Inlet Life Saving	Lonesome House, East Chimney
Station Flagstaff 1907	1902
Pope 1933	
T-12094	
None	



4. Vertical Control.

Inapplicable.

5. Contours and Drainage.

Contours are inapplicable.

Drainage is all runoff from the island into the bay or ocean.

6. Woodland Cover.

Woodland cover was inspected and has been classified on the Photographs.

7. Shoreline and Alongshore Features.

The mean high water line along the ocean was located by measurement from identifiable photo. points. Measurements were taken at approximate  $\frac{1}{2}$  mile intervals. These measurements are shown on the 1962 photographs. These distances do not end on any definite berm line on the photographs. This is probably caused by the photography being taken so soon after the storm and the beach had not stabilized. The beach also appears to have built up some since the storm. The measurements are correct and it is believed they are close enough together that the compiler will have no trouble locating this line on the manuscript.

The western side of the island is mainly marsh. The apparent shoreline was inspected by skiff and has been indicated on the 1961 photographs. The two sets of photographs were compared in the field and where noticeable changes occurred the 1962 photographs were used. The two sets of photographs have been cross-referenced.

8. Offshore Features.

There are none.

9. Landmarks and Aids.

Landmarks for nautical charts and fixed aids to navigation are adequately covered by Form 567 which is included with this data.

The fixed aids to navigation were located prior to the storm. They were checked immediately after the storm and all were still in place.

11. Other Control.

Recoverable Topographic Station SAM (1942) 1962 was established in map T-12090.

#### 11. Other Control Cont'd.

Recoverable Topographic Station GAG (1942) 1962 was established in Map T-12093.

No Recoverable Topographic Stations were established for map T-12094.

In addition to the above, copper weld stakes or natural objects were identified to provide control for the Maryland Department of Tidewater Fisheries. These points were identified so that a sextant fix could be observed any place in the bay. A total of 22 points were established in these maps.

#### 12. Other Interior Features.

The road which shows on the 1961 photographs, on Assateague Island, is not to be mapped. The coastal storm of March 1962 buried the road under several feet of sand. Driving on the island is now along the beach at the whim of the driver.

All landmark buildings have been indicated on the photographs.

A telephone line parallels the road on the northwest side and a local power line on the southeast side. The power line begins at the state line and runs northeast. The telephone line begins south of the project. The southern part of the telephone line has been indicated on photos. 61W6257 and 61W6259. The poles supporting the lines are visible on the 1962 photographs and the lines can be continued by the compiler.

There are no other features.

#### 13. Geographic Names.

A special report on geographic names will be submitted at a later date.

#### 14. Special Reports and Supplemental Data.

Special Report, Geographic Names, Project PH-6103, to be submitted at a later date.

Form 567, submitted with this data, 11 July 1962.

Letter of Transmittal dated 10 July 1962 and forwarded to Washington on 11 July 1962.

Submitted,

*William M. Reynolds*  
William M. Reynolds

Sub-unit Photo. Party 720

PHOTOGRAMMETRIC PLOT REPORT  
Project 21039 (PH-6103)  
Chincoteague Bay, Md.  
Surveys Nos. T-12086 thru T-12094

21. AREA COVERED

This radial plot covers the areas of the surveys listed above. These are shoreline surveys along Chincoteague Bay and Assateague Island. This radial plot was needed for the compilation of the area and islands west of the Aerotriangulation Bridge Strips 10 and 11 and east of Strip 13B. This includes Tingle Island, Pirate Islands southward to the project limits on the eastern side of Chincoteague Bay. On the western side of Chincoteague Bay the radial plot starts just south of Snow Hill Landing and continues southward to the project limits.

22. METHOD-RADIAL PLOT

Map manuscripts:

Vinylite sheets, with the polyconic projections in black, Maryland Grid in red and/or Virginia South Zone in green which were furnished by the Washington Office.

The positions of all triangulation stations, substitute points and Aerotriangulation Bridge points were plotted on the manuscripts with the coordinatograph.

A sketch showing the layout of the surveys and photograph centers is attached to this report.

Photographs:

Thirty (30) photographs ratioed to the scale of 1:10,000 were used in this plot and are numbered as follows:

- 61-S-9066 thru 9068
- 61-S-9298 " 9302
- 62-W-3757 " 3764
- 62-W-3786 " 3793
- 63-W-3382 " 3388

All photographs were printed on single weight paper with the exception of the flight 62-W-3786 thru 3793 which were on cronapaque.

#### Templets:

Vinylite templets were made of all photographs. No master templet was available for these single lens photographs.

#### Closure and Adjustment to Control:

The radial plot was constructed directly on the map manuscripts. The construction began with the flight 62-W-3786 thru 3793, which held to the stereo-points as dropped in bridge strips number 10 and 11. Flight 62-W-3757 thru 3764 was then laid using common points between flights. Flight 63-W-3382 thru 3389 was then laid tying into what was believed to be common stereo-bridge points on bridge 13B. The templets of photos on bridge 13B were added to give stronger position for lights which are aids to navigation.

While laying the templets for photos 61-S-9298 thru 9302, it was noted that it was impossible to make a tie across Chincoteague Bay. The error was as much as from 2 to 3 millimeters. Since this flight did not have any images of the aids to navigation on them and since they were printed on light weight paper, the error could be paper distortion. Since we only needed this flight for delineation of the western shore of Chincoteague Bay, the rays were cut off the templets on the eastern side of the bay. The centers will be only good for delineation on the western side of the bay. All of these centers fall in the water area, and for this reason they are dashed centers on the map manuscripts.

#### Transfer of Points:

The position of all photogrammetric points and photograph centers were pricked on the top templet and drilled down through the templets and map manuscripts.

#### 23. ADEQUACY OF CONTROL

The density and distribution of identified control and stereo-bridge points was adequate.

#### 24. SUPPLEMENTAL DATA

None.

## 25. PHOTOGRAPHY

The photography was adequate as far as coverage, overlap and image definition. There could be only one suggestion that could be made, and that is where there is a need for a radial plot there is also a need for the photographs to be printed on double weight paper so that the photograph will lay flat and would not distort due to the paper shrinking and expanding and warping.

## 26. POSITIONS OF AIDS TO NAVIGATION

After all of the templets were taped down onto the map manuscripts the various field cuts to the lights in the area were checked with the radially plotted positions of the office identified lights, which were pricked using as an aid Chart 1220, Revised date 8/6/62. The following is a list of lights and how they were held as comparison with the field angles from the List of Direction. This was done to verify the radial plot.

Chincoteague Bay Light 18 - Without the aid of a radial plot it would have been impossible to locate this point. The cuts as given by the fieldman could have been any of five different points. The cuts from Photo 12 and Boundary Monument Pope Island, 1907 Ecc. missed by approximately 1.5 mm to the southeast and 4.0 mm to the east respectively. The difference between the intersection of the cuts from Photo Point 09 and Photo Point 08 and the radially plotted position was approximately 0.5 mm. An average point was pricked and drilled.

Chincoteague Bay Light 17 - The image for this light did not fall on any of the 1963 photographs. The field cuts from Photo Point 09, Boundary Monument Pope Island, 1907, Ecc. and Cord (VFC), 1933 made a fairly good intersection. The point pricked and drilled was the mean intersection of these three cuts. The cut from Photo Point 08 fell approximately 2.6 mm to the south and was disregarded.

Chincoteague Bay Light 16 - The cuts from Photo Points 03, 11 and 12 fell within .3 mm of the radial plotted position. The point pricked and drilled was the mean of the afore mentioned. The field cut from Photo Point 08 fell approximately 1.3 mm to the east, and the cut from Boundary Monument Pope Island, 1902 Ecc. fell approximately 3.0 mm to the north. These two cuts were disregarded.

Johnson Bay Light 1 - The field cuts from Photo Points 08 and 11 agree with the strong radial plotted position. The cut from Photo Point 12 was disregarded because it fell approximately 0.7 mm to the east.

Johnson Bay Light 3 - The intersection of field cuts from Photo Points 11 and 12 fell approximately 0.7 mm from a good three cut radial plotted position. The point pricked and drilled was the mean of these two intersections. The field cut from Photo Point 08 fell approximately 1.0 mm to the south and was disregarded.

George's Island Landing Light 2 - The field cuts from Photo Point 12 and Cord (VFC), 1933 agreed with the radial plotted position. The intersection of these five rays was pricked and drilled. The field cut from Photo Point 03 fell approximately 1.0 mm to the south while the field cut from Photo Point 13 fell approximately 4.6 mm to the west. These two cuts were disregarded.

George's Island Landing Light 4 - The field cuts from Photo Points 03, 12 and Cord (VFC), 1933 agreed with the four ray intersection of the radial plot. The only bad ray, which was disregarded, came from Photo Point 13 which fell approximately 5.3 mm to the southwest.

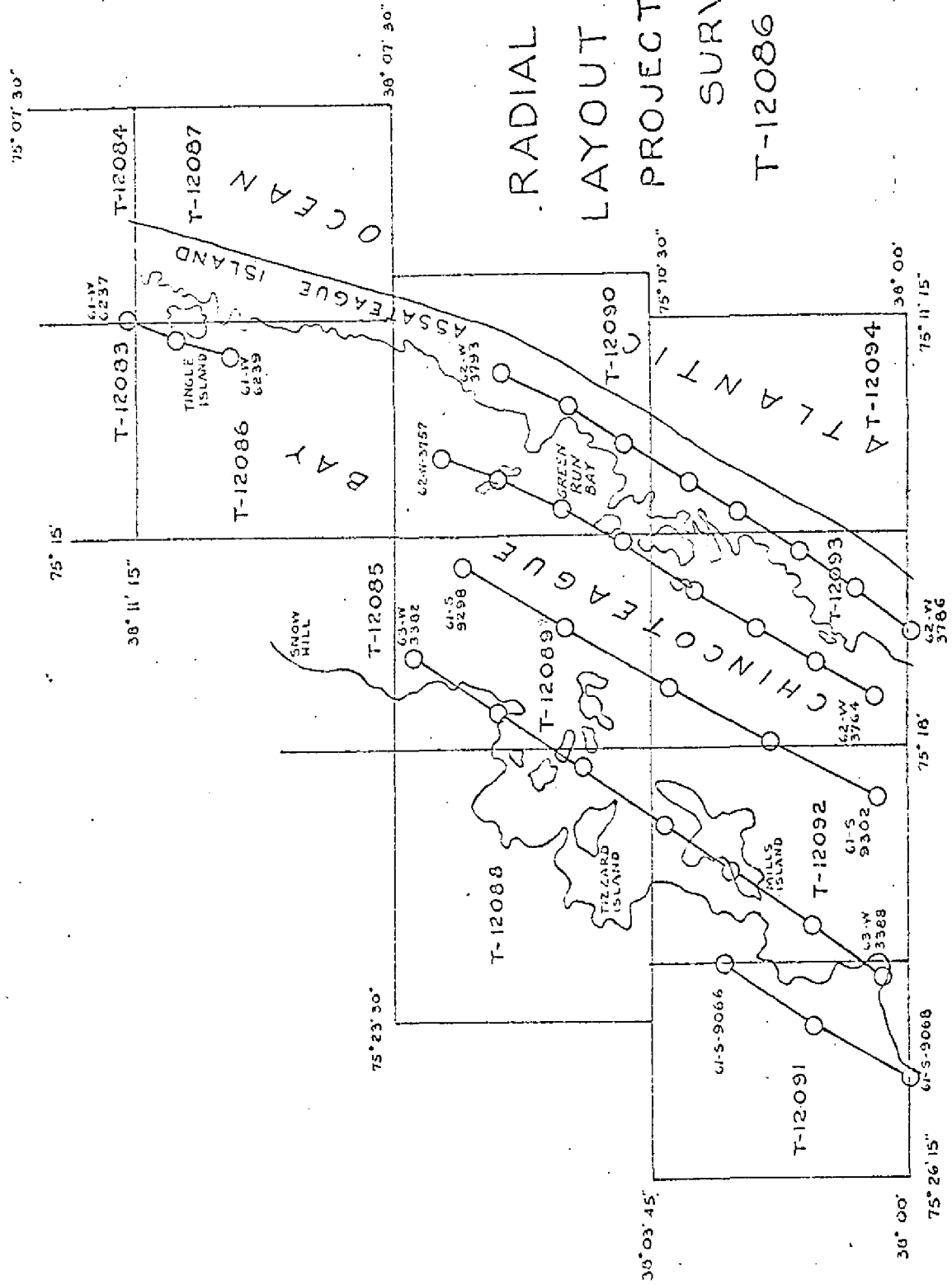
Greenbackville Light 1 - The position of the intersections of the radial plot, the field cuts and the position for this light as shown on Survey No. T-11660 (Project PH-5907) are all in agreement with each other.

Greenbackville Light 3 - The field cuts from Photo Points 00, 02 and 06 agree with the radially plotted position. This point was pricked and drilled. The position as shown on Survey No. T-11660 (Project PH-5907) falls 0.8 mm to the west. The field cut from Cord (VFC), 1933 fell approximately 0.5 mm to the south. These latter two were disregarded.

Respectfully submitted  
July 8, 1963

Leroy A. Senasack  
Cartographer (Photo)

# RADIAL PLOT LAYOUT SKETCH PROJECT PH-6103 SURVEYS T-12086 thru T-12094



## DESCRIPTIVE REPORT CONTROL RECORD

[illegible]



## COMPILATION REPORT

T-12093

There was no compilation report with the data for this survey at the time of final review.

January 14, 1972

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-6103 (Maryland & Virginia

T-12093

Assateague Island  
Atlantic Ocean  
Calpen Bay  
Cedar Islands  
Chicoteague Bay  
Horsehead Tump  
Pitts Island  
Pope Island  
~~Ope Bay Bay~~ *Pope Bay*  
Pope Island Ditch  
Ragged Point  
Ragged Point Marshes  
Rum Harbor  
Rum Harbor Cove  
Rum Harbor Ditch  
Rum Harbor Marsh  
Striking Rock  
The Ditch  
Toby Islands  
Toby Islands Bay  
Virginia Creek  
West Bay  
West Bay Tump

Approved by:

*A. Joseph Wraight*  
A. Joseph Wraight  
Chief Geographer

Prepared by:

*Frank W. Pickett*  
Frank W. Pickett  
Cartographic Technician

## PHOTOGRAMMETRIC OFFICE REVIEW

T- 12093

1. PROJECTION AND GRIDS ELR	2. TITLE ELR	3. MANUSCRIPT NUMBERS ELR	4. MANUSCRIPT SIZE ELR
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY ELR	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) ELR		7. PHOTO HYDRO STATIONS ELR
8. BENCH MARKS XX	9. PLOTTING OF SEXTANT FIXES XX	10. PHOTOGRAMMETRIC PLOT REPORT ELR	11. DETAIL POINTS ELR
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE ELR	13. LOW-WATER LINE ELR	14. ROCKS, SHOALS, ETC. ELR	15. BRIDGES ELR
16. AIDS TO NAVIGATION ELR	17. LANDMARKS ELR	18. OTHER ALONGSHORE PHYSICAL FEATURES ELR	19. OTHER ALONGSHORE CULTURAL FEATURES ELR
PHYSICAL FEATURES			
20. WATER FEATURES ELR	21. NATURAL GROUND COVER ELR		22. PLANETABLE CONTOURS XX
23. STEREOSCOPIC INSTRUMENT CONTOURS XX	24. CONTOURS IN GENERAL XX	25. SPOT ELEVATIONS XX	26. OTHER PHYSICAL FEATURES ELR
CULTURAL FEATURES			
27. ROADS ELR	28. BUILDINGS ELR	29. RAILROADS XX	30. OTHER CULTURAL FEATURES ELR
BOUNDARIES			
31. BOUNDARY LINES ELR		32. PUBLIC LAND LINES ELR	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES ELR	34. JUNCTIONS ELR		35. LEGIBILITY OF THE MANUSCRIPT ELR
36. DISCREPANCY OVERLAY ELR	37. DESCRIPTIVE REPORT ELR	38. FIELD INSPECTION PHOTOGRAPHS ELR	39. FORMS ELR
40. REVIEWER E. L. Rolle		SUPERVISOR, REVIEW SECTION OR UNIT	
41. REMARKS (See attached sheet)			
FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT			
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.			
COMPILER		SUPERVISOR	
43. REMARKS			

FIELD EDIT REPORT

T-12093

This survey was not field edited.

## REVIEW REPORT T-12093

## SHORELINE

JANUARY 25, 1972

61. GENERAL STATEMENT

See Summary, which is page 6 of the descriptive report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Comparison was made with a copy of registered survey T-8155, 1:20,000 scale, made in 1942. The surveys are in good agreement except for the following:

The shoreline along the outer coast has eroded about 50 meters since the date of the last survey.

White Rock, shown on T-8155 near latitude  $38^{\circ}03.5'$  longitude  $75^{\circ}17.5'$  is not visible on photographs of the area.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Comparison was made with USGS BOXIRON, MD. VA., 1:24,000 scale quadrangle, edition of 1942. This map is identical with T-8155, except for scale. Any differences between T-8155 and T-12093 also exist between the Boxiron quadrangle and T-12093.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

There are no contemporary hydrographic surveys within the limits of this map.

65. COMPARISON WITH NAUTICAL CHARTS

A visual comparison was made with Chart 1220, 18th edition dated July 17, 1971. The following differences were noted:

The two rocks, White Rock, near latitude  $38^{\circ}03.5'$ , longitude  $75^{\circ}17.6'$  are not visible on the photographs.

Markers "D" and "E" in Chincoteague Bay on the Maryland-Virginia Boundary were not located during field work.

A submerged pile near latitude 38°01.4'-longitude 75°17.5' is not visible on the photographs.

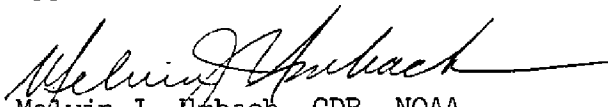
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This survey complies with instructions and is adequate for nautical chart construction purposes:


Reviewed by:

  
Leo F. Beugnet  
Cartographer


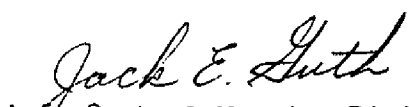
Approved for forwarding:

  
Melvin J. Umbach, CDR, NOAA  
Chief, Photogrammetry Division, AMC

Approved:

  
Alfred C. Holmes, RADM, NOAA  
Director, Atlantic Marine Center

Approved:

   
Chief, Photogrammetric Branch, Chief, Coastal Mapping Division