

# 10490

Diag. Cht. No. 1210-2.

FORM C&GS-504

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

## DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. Ph-163 Office No. T-10490

LOCALITY

DESCRIPTIVE REPORT - DATA RECORD

- 2 -

T - 10490

Project No. (II): **Ph-163**  
~~26126~~      Quadrangle Name (IV):  
Field Office (II): **East Providence, R. I.**      Chief of Party: **Ira R. Rubottom**  
Photogrammetric Office (III): **Baltimore, Md.**      Officer-in-Charge: **William F. Deane**  
Instructions dated (II) (III):  
(II) 9 April 1956      Copy filed in Division of  
13 March 1957      Photogrammetry (IV)

Method of Compilation (III): ~~Shoreline~~ - **Kelsh Plotter**  
Manuscript Scale (III): **1:10,000**      Stereoscopic Plotting Instrument Scale (III): **1:6000**  
Scale Factor (III): **1.000**      (**Pantograph ratio 3/5**)  
Date received in Washington Office (IV): **1950**      Date reported to Nautical Chart Branch (IV):

Applied to Chart No.      Date:      Date registered (IV):

Publication Scale (IV):      Publication date (IV):

Geographic Datum (III): **N.A. 1927**      Vertical Datum (III):  
~~Mean low water or mean lower low water~~      **MHW**  
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): **HOG ISLAND 3, 1874**

Lat.: **41° 38' 39.930" (1231.9 m)**      Long.: **71° 16' 50.930" (1178.6 m)**      Adjusted  
~~Unadjusted~~

Plane Coordinates (IV):      State: **Rhode Island**      Zone: **---**

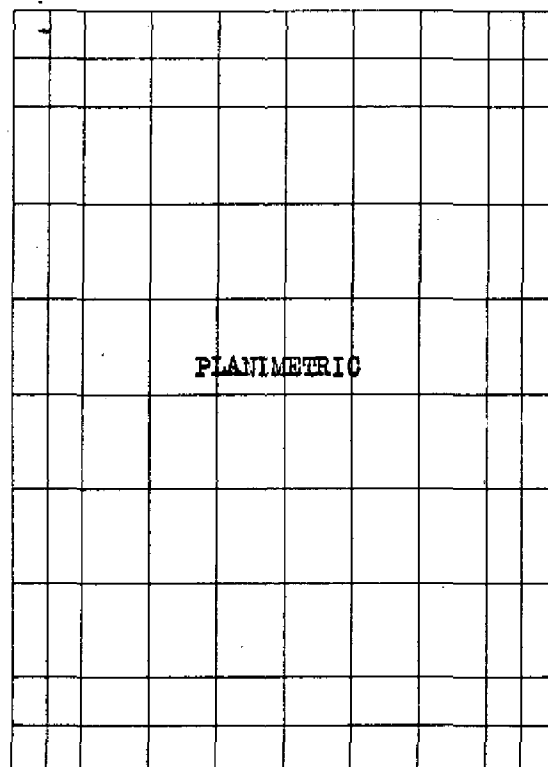
Y=      X=

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.

# DESCRIPTIVE REPORT - DATA RECORD

71° 18.75'



41° 41.25'

41° 37.5'

71° 15.0'

Areas contoured by various personnel  
(Show name within area)  
(II) (III)





## DESCRIPTIVE REPORT - DATA RECORD

- 5 -

Camera (kind or source) (III): C&amp;GS Camera "W" 6" focal length

Number	Date	PHOTOGRAPHS (III) Time (EST)	Scale	Stage of Tide
56-W-224 thru 227	1 May 1956	0919	1:30,000	2.0' above MLW
56-W-242 thru 245	"	0931	"	2.5' " "

Tide (III)  
(from predicted tables)Reference Station: Newport, R. I.  
Subordinate Station: Bristol  
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	3.5	4.4
	4.1	5.1

Washington Office Review by (IV): S.G. BLANKENBAKER

Date: Dec., 1966

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 5.5 sq. mi.

Shoreline (More than 200 meters to opposite shore) (III): 17.2 mile

Shoreline (Less than 200 meters to opposite shore) (III): 0.5 mile

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 18 Recovered: 13 Identified: 7

Number of BMs searched for (II): 6 Recovered: 6 Identified: 1

Number of Recoverable Photo Stations established (III):

Number of Temporary Photo Hydro Stations established (III): see par. 38

## Remarks:

Two (2) third-order triangulation stations established.

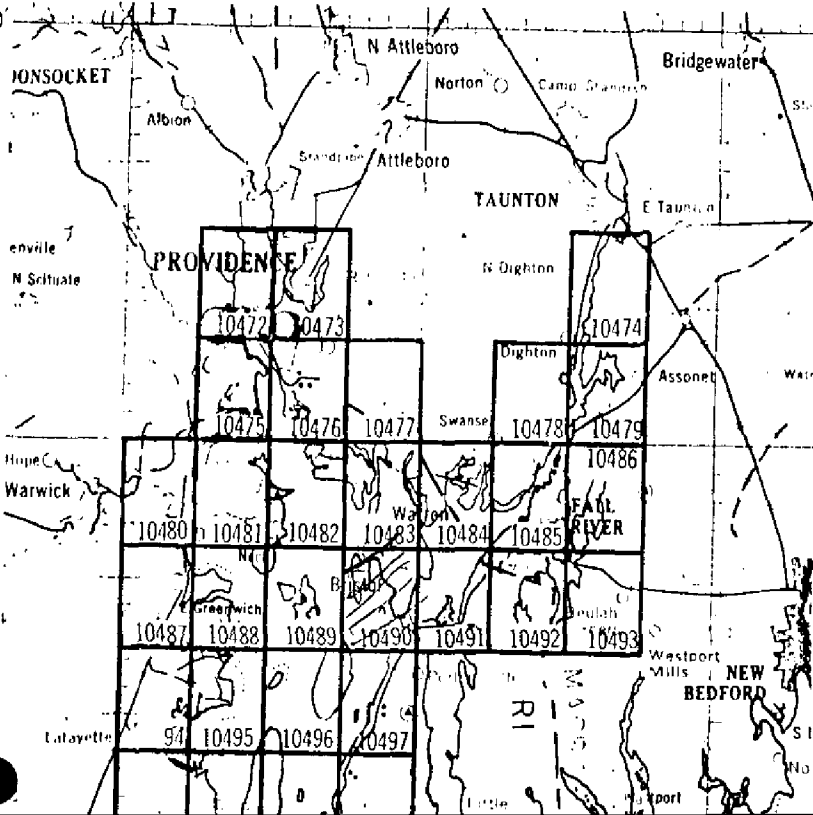
All bench marks searched for are Tidal Bench Marks.

# PLANIMETRIC MAPPING PROJECT PH - 163

Narragansett Bay, Mass. - Rhode Island

- 6 -

42°00'



## OFFICIAL MILEAGE FOR COST ACCO

SHEET NO.	Lin. Mi. SHORELINE	AVE SQ. F
10472	10	12
10473	7	13
10474	- 0 -	14
10475	8	10
10476	6	11
10477	2	13
10478	1	13
10479	7	12
10480	2	13
10481	4	13
10482	8	4
10483	6	11
10484	8	8
10485	8	10
10486	7	10
10487	3	13
10488	6	6
10489	7	3
10490	8	7
10491	8	6
10492	1	11
10493	2	12

- 1 -

Summary to Accompany Descriptive Report  
T-10490

T-10490 is one of 30 planimetric maps comprising project PH-163. The project covers the Narragansett Bay, Rhode Island-Massachusetts, area.

The project area was field inspected. Deficiencies in alongshore rock information are discussed in the final review report and in the addendum to this Summary.

Limited field edit of this map was accomplished by contemporary hydrographic survey parties.

The project area was bridged by multiplex. T-10490 was compiled by Kelsh plotter.

A cronaflex copy of the map will be registered.



- 8 -

ADDENDUM TO SUMMARIES TO ACCOMPANY  
JOB PH-163 MAPS T-10472 through T-10501  
(ACCURACY AND FUTURE SURVEYS)

Most of the project maps were used in contemporary hydrographic survey operations. Four hydrographic surveys accomplished in the period of time between 1943 and 1955 cover the project area outside the areas of contemporary surveys.

The contemporary hydrographic surveys have been registered. With one exception they are classified "basic". Survey H-8367 is classified as "basic for charting only".

Considerable difficulty was experienced during smooth plotting and verification of some hydrographic surveys in using signals located by plane table methods. Many of the objects were identified on field photographs by the plane table party. Field identification of these objects was re-examined in the Baltimore Office, Compilation Unit. Some of the objects were relocated photogrammetrically and this revised information was furnished for use in smooth plotting.

The Norfolk Processing Office Addendum to Accompany Survey H-8316 mentions difficulties experienced when plotting sextant angles locating piles, piers, shoreline changes, etc. -- they were seldom in agreement with photogrammetric manuscript positions. The Washington office verifier was unable to adjust the subject information using the available hydrographic data. To assist in resolving the discrepancies, the Photogrammetry Division (Washington Office Review Group) rechecked signal locations on Maps T-10472, T-10473, T-10475 and T-10476. Fifty-seven signal locations and random portions of shoreline were revised by graphic methods using available field photographs that included field identified primary control and signals. This additional work is subject to error due to the condition of the photographs and the more limited use of project control; many discrepancies between the surveys, however, were resolved by using the revised information. No requests for similar rechecks were made by verifiers of other hydrographic surveys.

In part, the problems encountered in survey H-8316 (and H-8394) during hydrography and by verifiers can be attributed to the enlargement of these photogrammetric maps from 1:10,000 to 1:5,000 scale for use in hydro support. Similar problems on

-9-  
2

other hydrographic surveys were attributed, in part, to incorrect transfer of signals, substandard plotting and use of weak sextant fixes.

Control for project bridging (multiplex) was classified "over abundant" (150 stations). While 25% of the stations were "difficult to see", only two stations were not held. Pass points between strips were averaged-adjustment less than 0.5 mm.

In addition to the previously mentioned supplemental work (relocation of signals and shoreline), two stereoplanigraph models were set to test horizontal map accuracy. The models covered parts of maps T-10472 and T-10473. A datum difference was found to exist between Bureau control and MGS and USGS control. Adjustment of these difference produced no appreciable shift in map details.

Rock information mapped on some of the photogrammetric surveys was incomplete as the result of poor photography inadequately supplemented by field inspection. The hydrographer located many rocks missed on the photogrammetric survey; and, in addition, the hydrographic survey reviewers found it necessary to bring forward considerable rock information without the benefit of verification by either the photogrammetric surveys or the contemporary hydrographic surveys.

These surveys have been used, in part, for nautical charting through both direct application of details and indirectly through contemporary hydrographic surveys. As previously mentioned, all but one of the contemporary hydrographic surveys have been registered as "basic surveys". Registration of these maps is recommended. Future use of the maps for hydro support purposes is not recommended due to the previously discussed problems that were encountered. Re-bridging by analytic aerotriangulation and new mapping with new color and infrared photography is recommended.

S. G. Blankenbaker  
S. G. Blankenbaker

NOTE: POLITICAL BOUNDARIES - With the exception of the Mass. - Rhode Island state line, none of the numerous mapped political boundaries are shown on modern charts. In consideration of the loss of some field photographs, and requests by photogrammetric office reviewers for field verification of boundaries, it is recommended that the project maps not be considered sources for political boundaries (with the exception of the state line). See



FIELD INSPECTION REPORT  
Project 25120  
Map T-10490

Please refer to the Field Inspection Report for Map T-10480  
for all data pertaining to this map.

*Leo F. Beugnet*

Leo F. Beugnet  
Cartographic Survey Aid

Approved:

*Frank J. Fitzgerald*

*for*  
Ira R. Rubottom  
Chief of Party

FIELD INSPECTION PHOTOGRAPHS  
56 W 225, 226, 227, 242,  
243, 244, 245

54 W 1194, 1195, 1196, 1197

PHOTOGRAPHS 54 W 1145, 1194, 1195  
WERE MISSING AT THE TIME OF  
FINAL REVIEW - APPARENTLY

~~MISSING~~  
LOST

DESCRIPTIVE REPORT CONTROL RECORD

**Ph-163**

NO.	SCALE OF MAP	1:10,000	SCALE FACTOR	1.000
125120				

LATITUDE OR Y-COORDINATE LONGITUDE OR X-COORDINATE		DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
		FORWARD	(BACK)		FORWARD	(BACK)	FORWARD	(BACK)
41 38	19.134	590.3	1260.8					
71 17	07.497	173.5	1215.2					
41 41	09.647	297.6	1553.5					
71 15	22.702	525.0	862.6					
41 38	58.583	1807.3	43.8					
71 18	05.285	122.3	1266.1					
41 34	56.082	1730.2	120.9					
71 16	25.487	589.9	798.9					
41 38	33.890	1045.5	805.6					
71 15	38.749	896.8	491.8					
41 40	12.117	373.8	1477.3					
71 16	25.776	596.3	791.7					
41 40	22.055	680.4	1170.7					
71 16	17.620	407.6	980.4					
41 38	28.692	885.2	965.9					
71 15	33.813	782.5	606.1					
41 40	24.587	758.5	1092.6					
71 16	10.620	245.7	1142.2					
41 40	16.876	520.6	1330.5					
71 16	17.028	393.9	994.1					
41 38	17.862	551.1	1300.0					
71 15	27.363	633.3	755.4					

3/22/57

CHECKED BY: S. C. Plankenbaker

DATE \_\_\_\_\_

3/26/57

COMM-DC-57843

MAP T. 10490

PROJECT NO.:

SCALE OF MAP  
1:10,000

SCALE FACTOR

1.000

[illegible]

ET - 3048006 METER

1 FT. = .3048006 METER  
A. K. Heywood  
COMPUTED BY:

DATE 3/22/57

CHECKED BY: \_\_\_\_\_

**S. G. Blankenbaker**

DATE \_\_\_\_\_

3/26/57

COMM-DC-57843



- 13 -  
- 12 -

COMPILATION REPORT  
Ph-163  
T-10490

The photogrammetric plot report for this survey is part of the descriptive report for Survey T-10472.

Horizontal control was adequate. Vertical control is inapplicable.

33. SUPPLEMENTAL DATA

Final name standard dated 5 March 1957.

Planetable Sheet Ph-1-F-56.

34. CONTOURS AND DRAINAGE

Drainage is complete.  
Contours are inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS

All shoreline detail is from field inspection which was thorough.

36. OFFSHORE DETAIL

### 38. CONTROL FOR FUTURE SURVEY

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 278, scale 1:20,000, published November 11, 1946,  
revised 8/25/58.

Items to be applied to nautical charts immediately: None.

Items to be carried forward: None.

Respectfully submitted  
26 January 1959

*John C. Richter*

John C. Richter  
Carto. (Photo.)

Approved and Forwarded

*William F. Deane*

William F. Deane  
CDR, C&GS  
Baltimore District Officer

-16-

# PHOTOGRAMMETRIC OFFICE REVIEW

T-10490

1. Projection and grids ☒ 2. Title ☒ 3. Manuscript numbers ☒ 4. Manuscript size ☒

4a. Classification label ☒

## CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy ☒ 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) ☒ 7. Photo hydro stations ☒ 8. Bench marks ☒  
9. Plotting of sextant fixes ☒ 10. Photogrammetric plot report ☒ 11. Detail points ☒

## ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ☒ 13. Low-water line ☒ 14. Rocks, shoals, etc. ☒ 15. Bridges ☒ 16. Aids to navigation ☒ 17. Landmarks ☒ 18. Other alongshore physical features ☒ 19. Other along-shore cultural features ☒

## PHYSICAL FEATURES

20. Water features ☒ 21. Natural ground cover ☒ 22. Planetable contours ☒ 23. Stereoscopic instrument contours ☒ 24. Contours in general ☒ 25. Spot elevations ☒ 26. Other physical features ☒

## CULTURAL FEATURES

27. Roads ☒ 28. Buildings ☒ 29. Railroads ☒ 30. Other cultural features ☒

## BOUNDARIES

31. Boundary lines ☒ 32. Public land lines ☒

## MISCELLANEOUS

33. Geographic names ☒ 34. Junctions ☒ 35. Legibility of the manuscript ☒ 36. Discrepancy overlay ☒ 37. Descriptive Report ☒ 38. Field inspection photographs ☒ 39. Forms ☒

40. Joseph W. Wondasick Henry J. Richert  
Reviewer 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.

S. G. BLANKENBAKER Supervisor  
Comptroller

43. Remarks: Dec. 1966

-17-

Review Report  
T-10490  
December 1966

61. General Statement

This survey has been used for hydrographic survey support purposes (H-8314, H-8395, and H-8396). Corrections applied to photogrammetric survey detail during hydrography and/or verification of the hydrographic surveys were applied to T-10490 during this review.

No discrepancies exist between the surveys. T-10490 is deficient in alongshore rock information - refer to side heading 66.

During review of the hydrographic surveys, thorough evaluations were made of prior Bureau topographic information (registered surveys). For this reason comparison with prior surveys during the review of T-10490 was limited to the surveys accounted for in subsequent sections of this report.

62. Comparison with Registered Topographic Surveys

T-5749	1:20,000	1944
T-5750	1:20,000	1944

A few alongshore rocks were carried forward from the prior topographic surveys to H-8396, dated 1956. Except for these details, T-10490 supersedes the prior surveys for nautical charting purposes in the common area.

63. Comparison with Maps of Other Agencies

USGS quad Bristol	1:24,000	1955
-------------------	----------	------

No significant differences were noted.

64. Comparison with Contemporary Hydrographic Surveys

H-8314	1:10,000	1956
H-8395	1:10,000	1957
H-8396	1:10,000	1957

These surveys have been accepted as basic surveys. Refer to side headings 61 and 66 of this report concerning application of T-10490 to the hydrographic surveys.

-18-  
2

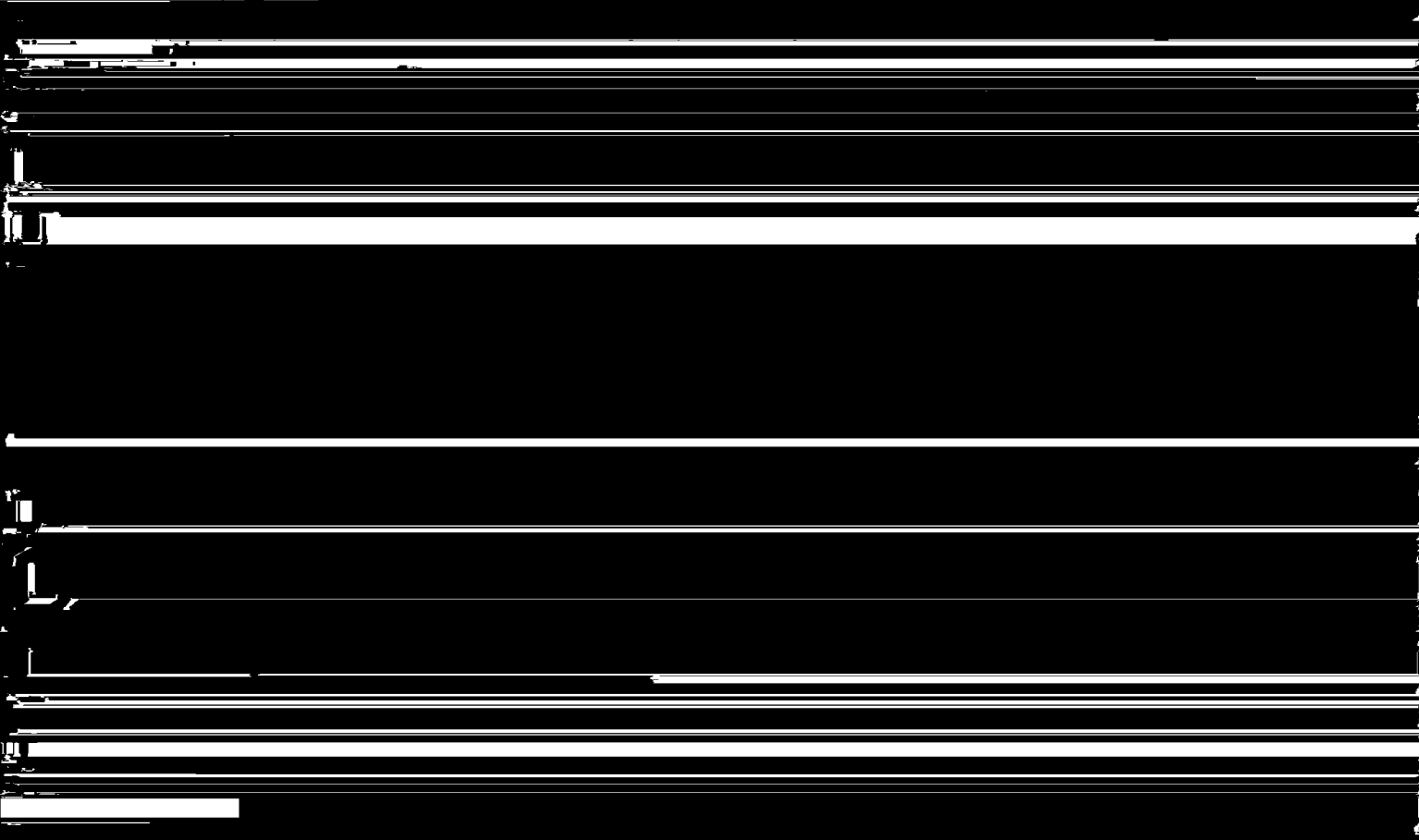
65. Comparison with Nautical Charts

278                      1:20,000      11/9/64

The chart contains some topography from more recent sources. No significant differences were noted.

66. Adequacy of Results and Future Surveys

Project photography was poor for the purpose of interpreting alongshore details (rocks, piles, etc.); and, in addition, field inspection of alongshore rock details was incomplete. As a result a considerable number of rocks were added by the hydrographic survey party; also. rock details were carried



fication.

The addendum to the "Summary" included in this Descriptive Report contains additional information pertaining to the adequacy and accuracy of project maps. The maps are to be registered; remapping, however, is recommended for future hydrographic survey support purposes.

Reviewed by

*S. G. Blankenbaker*  
S. G. Blankenbaker



-19-  
1-9-68

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Rhode Island)

T-10490

~~Bristol~~  
~~Bristol County-gp~~  
~~Bristol Harbor~~  
~~Bristol Ferry-gp~~  
~~Bristol Neck~~  
  
~~Bristol Point~~  
  
~~Castle Island~~  
~~East Cemetery-gp~~  
~~East Passage~~  
~~DeWolf Cemetery-gp~~  
~~Fort Hill~~  
~~Ferry Cliff-gp~~  
~~Hog Island~~  
  
~~Hog Island Rock~~  
~~Hog Island Shoal-gp~~  
~~Juniper Hill~~  
~~Juniper Hill Cemetery-gp~~  
~~Mill Gut~~  
~~Middle Ground-gp~~  
~~Mill Pond~~  
  
~~Mount Hope Bay~~  
~~Mount Hope Bridge-gp~~  
~~Musselbed Shoal-gp~~  
Approved by:

A. Joseph Wraight  
A. Joseph Wraight  
Chief Geographer

~~Narragansett Bay~~  
~~Newport County-gp~~  
~~North Point~~  
  
~~Popasquash Neck~~  
  
~~Popasquash Point~~  
~~Pourtsmouth-gp~~  
~~Prudence Island~~  
  
~~Rhode Island~~  
~~St. Marys Cemetery-gp~~  
~~Silver Creek~~  
  
~~Southwest Point~~  
  
~~Usher Cove~~  
  
~~Usher Point~~  
~~Usher Rocks-gp~~  
~~Walker Cove~~  
  
~~Walker Creek~~  
  
~~Walker Island~~

Prepared by:

Frank W. Pickett  
Frank W. Pickett  
Cartographic Technician

~~TO BE CHARTED~~  
~~10/10/10~~  
~~TO BE DELETED~~

**STRIKE OUT ONE**

## NON-FLOATING AIDS OR LANDMARKS FOR CHARTS

**Baltimore, Maryland**

65  
19  
February 2

I recommend that the following objects which have ~~not~~ been inspected from seaward to determine their value as landmarks be charted on ~~deleted from~~ the charts indicated.

The positions given have been checked after listing by

**William T. Beane**

Chief of Party.

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

**\* TABULATE SECONDS AND METERS**

Com-DC 28358



U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

TO BE CHARTED

## STRIKE OUT ONE

## NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Baltimore, Maryland

2 February 1959

I recommend that the following objects which have ~~been~~ *been* inspected from seaward to determine their value as landmarks be charted on ~~the~~ *the* charts indicated.

**Joseph W. Vonasek**

**William F. Deane** *Chief of Party.*

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

\* TABULATE SECONDS AND METERS



