

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 <u>Planimetric</u>	
Field No. <u>Ph-163</u> Office No. <u>T-10490</u>	
LOCALITY	

DESCRIPTIVE REPORT - DATA RECORD

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T - 10490

Ph-163
Project No. (II): *25120* 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
13 March 1957 Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): **Shoemaker - Kelsh Plotter**

Manuscript Scale (III): **1:10,000** Stereoscopic Plotting Instrument Scale (III): **1:6000**
(Pantograph ratio 3/5)

Scale Factor (III): **1.000**

Date received in Washington Office (IV):

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 sea level approximations~~: **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'

PLANIMETRIC

41° 41.25'

41° 37.5'

71° 15.0'

Areas contoured by various personnel

(Show name within area)

(II) (III)

DESCRIPTIVE REPORT - DATA RECORD

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

PHOTOGRAPHS (III)

Number	Date	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**

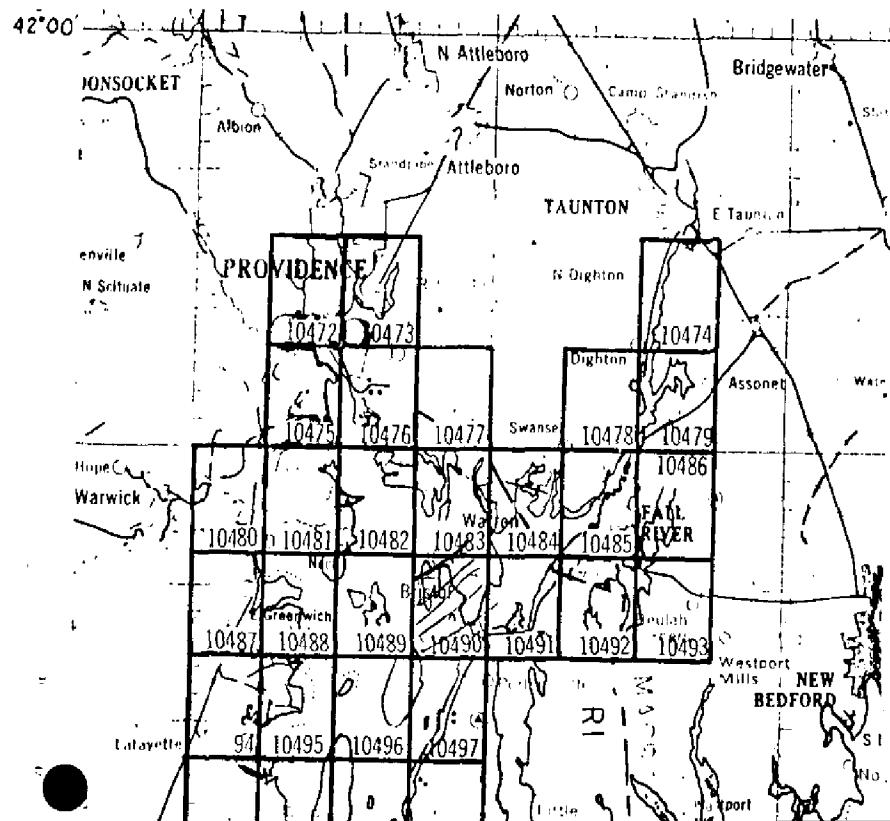
Remarks:

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



SHEET NO.	SHORELINE	OFFICIAL MILEAGE FOR COST ACCT	
		Lin. Mi.	ARE
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	3	13	
10483	6	11	
10484	5	11	
10485	5	11	
10486	5	10	
10487	3	13	
10488	6	10	
10489	7	13	
10490	5	10	
10491	6	10	
10492	5	10	
10493	6	10	
10489	7	3	
10490	8	6	
10491	8	7	
10492	9	11	
10493	2	12	

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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.

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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

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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.

J. 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). SGS

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:
Patrick J. Fitzgerald
for Ira R. Rubottom
Chief of Party

FIELD INSPECTION PHOTOGRAPHS

56W 225, 226, 227, 242,
243, 244, 245

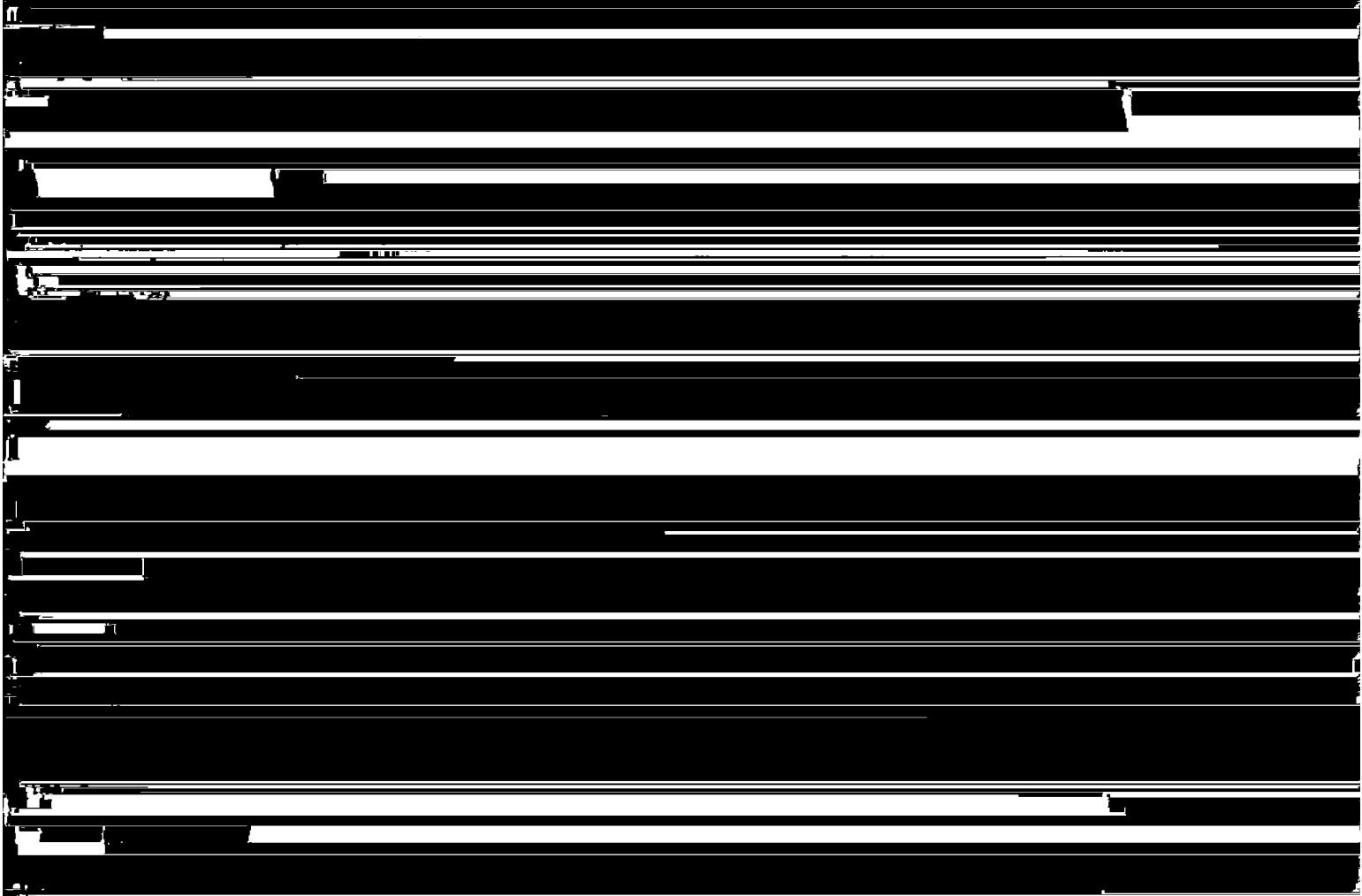
54W 1194, 1195, 1196, 1197

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

~~MISSING~~
LOST

COMPILED 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.

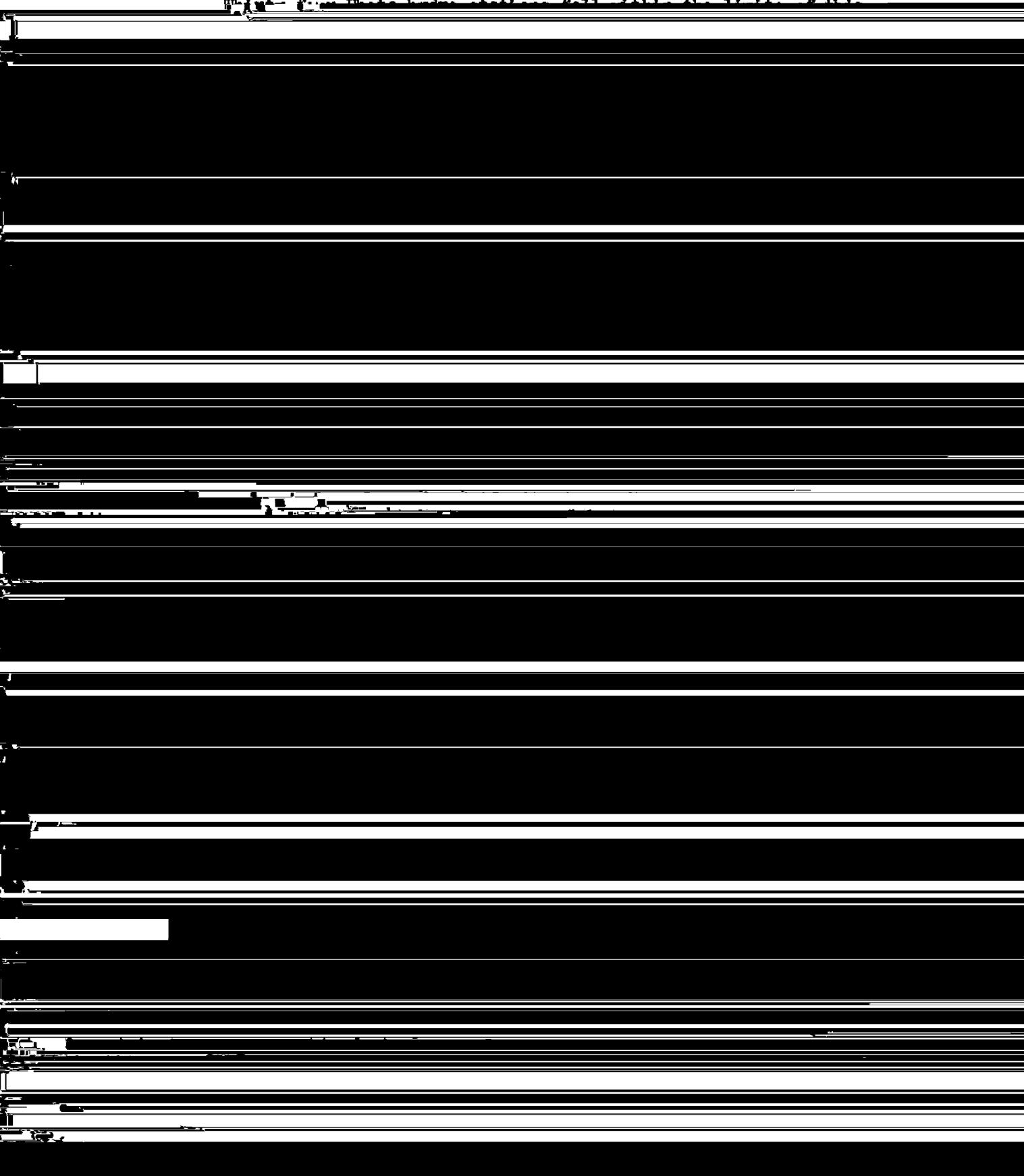
Contours are inapplicable.

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

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 alongshore 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. Womack* *Henry P. Eichart*
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. BLANKENBAKE

Gomphier

Supervisor

Dec. 1966

43. Remarks:

COMM-DC 34529

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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
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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.

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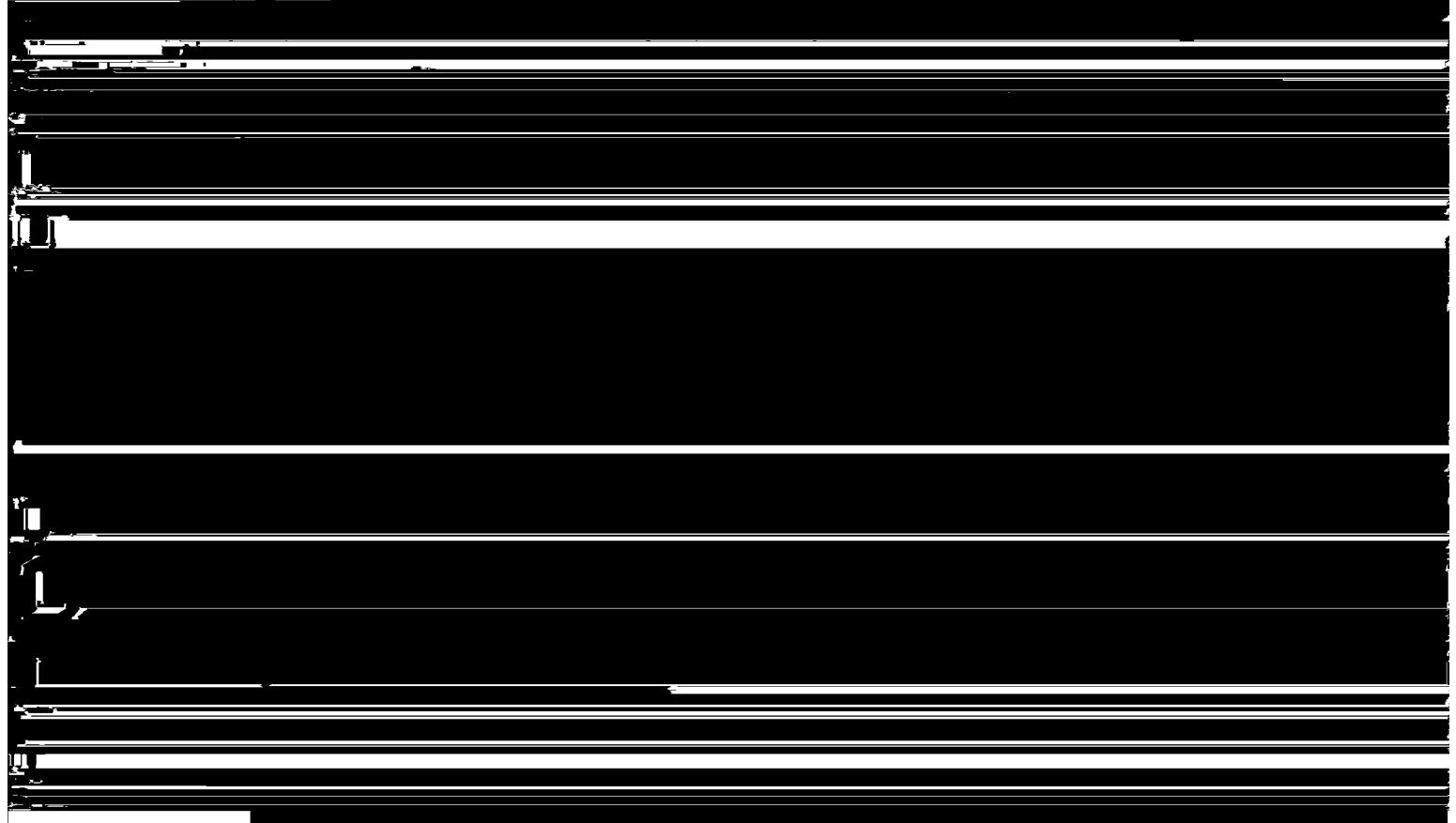
65. Comparison with Nautical Charts

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

1-9-68

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Rhode Island)

T-10490

Bristol	Narragansett Bay
<i>Bristol County-pp</i>	<i>Newport County-pp</i>
Bristol Harbor	North Point
<i>Bristol Ferry-pp</i>	Popasquash Neck
Bristol Neck	Popasquash Point
Bristol Point	<i>Portsmouth-pp</i>
Castle Island	Prudence Island
<i>East Cemetery-pp</i>	Rhode Island
East Passage	<i>St. Marys Cemetery-pp</i>
<i>DeWolf Cemetery-pp</i>	Silver Creek
Fort Hill	Southwest Point
<i>Ferry Cliff-pp</i>	Usher Cove
Hog Island	Usher Point
Hog Island Rock	<i>Usher Rocks-pp</i>
<i>Hog Island Shoal-pp</i>	Walker Cove
Juniper Hill	Walker Creek
<i>Juniper Hill Cemetery-pp</i>	Walker Island
Mill Gut	Prepared by:
<i>Middle Ground-pp</i>	<i>Frank W. Pickett</i>
Mill Pond	Cartographic Technician
Mount Hope Bay	
<i>Mount Hope Bridge-pp</i>	
<i>Musselbed Shoal-pp</i>	
Approved by:	
<i>A. Joseph Wright</i>	
A. Joseph Wright Chief Geographer	

Frank W. Pickett
Frank W. Pickett
Cartographic Technician

MONTEVIDEO'S LANDMARKS FOR CHARTS

TO BE CHARTERED
18/8/1963
STRIKE OUT ONE

I recommend that the following objects which have ~~hitherto~~ ^{not} been inspected from seaward to determine their value as landmarks be charted on ~~Admiral's~~ ^{Admiral's} charts indicated. The positions given have been checked after listing by Joseph V. Vonasok

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Chief of Party		Rhode Island		POSITION		METHOD OF LOCATION AND SURVEY		DATE OF LOCATION		CHARTS AFFECTED	
CHARTING NAME	DESCRIPTION	LATITUDE*		LONGITUDE*		DATUM	REF. POINTS	HARBOUR CHART	INTERNAL CHART	OFFSHORE CHART	CHART
		SIGNAL NAME	°	°	'						
TANK	steel, water, ht-170(227)(\triangle) Bristol Black Tank 1932	LAC	42	40	75°.5	71	16	24°.7	1927	Triang.	5/16/56
STACK	round, brick, ht-181(228)(\triangle) Bristol Stack, 1932	STA	42	40	22°.0	71	16	17°.620	"	"	"
TOWER	Square, buff brick ht-90(145) (\triangle) Bristol, Square Stone Church Tower, 1912	ABE	42	40	16°.876	71	16	17°.028	"	"	"
TANK	steel, water ht-126(133)	GUS	42	40	36°.3	71	16	11°.7	"	Photo.	8/11/56
TANK	steel, water ht-118(123) ^{H.P. 3/15}	HEX	42	40	00°.6	71	16	10°.9	"	"	"
TOWER	steel, ht-285(285)(\triangle) Mt. Hope Bridge North Tower, 1932 ^{H.P. 3/15}	HOP	42	38	28.692	71	15	93°.813	"	"	278
TOWER	steel, ht-265(265)(\triangle) Mt. Hope ^{H.P. 3/15} Hope Bridge South Tower, 1932	TOWE	42	38	885.2	71	15	782°.5	"	Triang.	5/16/56
								278			

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if predetermined, 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.

** TABLE OF SECONDS AND METERS

NONFLOATING AIDS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE
11/19/88/DELETED/

I recommend that the following objects which have ~~been~~ been inspected from seaward to determine their value as landmarks be charted on ~~labeled~~ the charts indicated.
The positions given have been checked after listing by Joseph W. Vonasek

111

Baltimore, Maryland 2 February 1959

STATE	RHODE ISLAND		POSITION		METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	CHARTS AFFECTED
	CHARTING NAME	DESCRIPTION	LATITUDE*	LONGITUDE*			
LT	Hog Island Shoal Light (△)	SIGNAL NAME	41 37	56° 08' 2" N.E. METERS	D.P. METERS	9/1 1927	236, 278 353, 1226
LT	Hog Island Shoal Lighthouse, 1913)	AND	41 37	1730.2 71 16	589.9	Triang 1956	x x
LT	Musselbed Shoals Light	SEL	41 38	10° 21' 21" N.E. METERS	37.63	Photo. "	278, 353 1210
LT	Castle Island Light (△ Castle Island Light, 1956)	CAS	41 39	13° 42' 26" N.E. METERS	871	"	278, 353, 1210
LT	Bristol Harbor Light	ION	41 39	41° 41' 2" N.E. METERS	17	8/14 1956	x x
				57° 8' 6" N.E. METERS	2009	Photo. "	278, 353, 1210

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

* TABLE AT SECONDS AND METERS

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-10490

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.

1. Letter ~~all~~ information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.