

10496^{Original}

Diag. Cht. No. 1210-2.

Form 304

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. Ph-163 Office No. T-10496

LOCALITY

State Rhode Island

General locality Narragansett Bay

Locality Prudence Island

1956

Ira R. Rubottom ^{CHIEF OF PARTY} Chief of Party
William F. Deane, Balto. District Officer

LIBRARY & ARCHIVES

DATE 26 FEB 1968

COMM-DC 61300

10496

DESCRIPTIVE REPORT - DATA RECORD

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T- 10496

Ph-163

Project No. (II): ~~77470~~ 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): Kelsh Plotter.

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): 1:6,000
(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): MHW

~~Mean Low Water or Mean Lower Low Water~~

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): HOPE ISLAND, 1843

Lat.: 41° 36' 09.754" 300.9 m

Long.: 71° 21' 59.734" 1383.3 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.

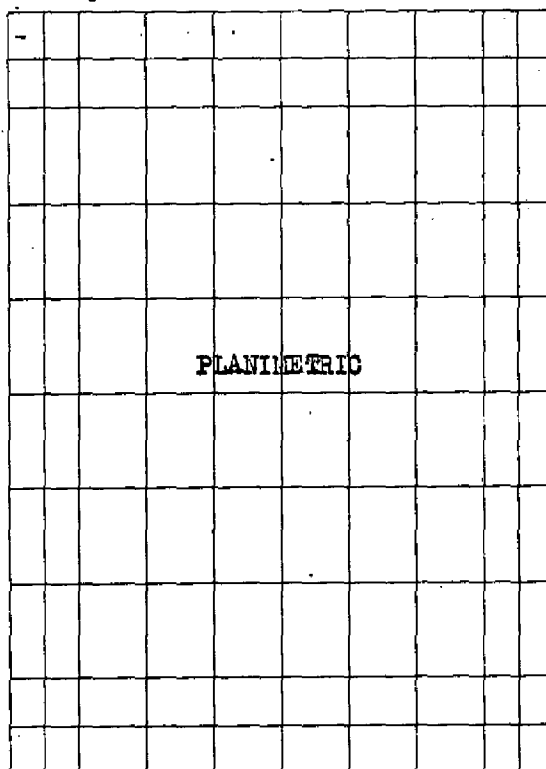
When entering names of personnel on this record give the surname and initials, not initials only.

FORM 181a
(4-23-54)

DESCRIPTIVE REPORT - DATA RECORD

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

71° 22.5'



41° 37.5'

41° 33.75'

71° 18.75'

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

DESCRIPTIVE REPORT - DATA RECORD

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Field Inspection by (II): **Martin C. Moody**
Leo F. Beugnet

Date: **May - October 1956**

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): **1956 date of photography**
supplemented by field inspection

Projection and Grids ruled by (IV): **J. Chaconas**

Date: **3/8/57**

Projection and Grids checked by (IV): **J. D. Wolfe**

Date: **3/57**

Control plotted by (III): **J. C. Richter**

Date: **7/31/57**

Control checked by (III): **J. C. Cregan**

Date: **8/20/57**

~~Photostereoscopic~~ Stereoscopic
Control extension by (III):

E. L. Rolle

Date: **10/25/57**

Planimetry **J. C. Cregan**
Stereoscopic Instrument compilation (III):

Date: **12/26/57**

~~Photostereoscopic~~

Date: **---**

Manuscript delineated by (III): **Ronald J. Mechliniski**
(scribed)

Date: **6/12/59**

Photogrammetric Office Review by (III): **J. W. Vonasek**

Date: **12/19/58**

Elevations on Manuscript
checked by (II) (III):

Date:

DESCRIPTIVE REPORT - DATA RECORD

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

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Number	Date	PHOTOGRAPHS (III)		Scale	Stage of Tide
		Time (EST)			
56-W-200 thru 202	5/1/56	0900		1:30,000	1.9 feet above MLW
56-W-227 thru 229	"	0920		"	2.0 feet above MLW

Tide (III)
(From Predicted Tables)

Reference Station: Newport, R. I.
Subordinate Station: Prudence Island, Sandy Point
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
-	3.5	4.4
-	3.9	4.9

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): 3.5
Shoreline (More than 200 meters to opposite shore) (III): 7.8 mi.
Shoreline (Less than 200 meters to opposite shore) (III): 0.4 mi.

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 11 Recovered: 5 Identified: 2
Number of BMs searched for (II): Recovered: Identified:

Number of Recoverable Photo Stations established (III): None

Number of Temporary Photo Hydro Stations established (III):

Remarks:

PH - 163

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OFFICIAL MILEAGE FOR COST ACCOUNTING		ARE
SHEET NO.	Lin. Mi. SHORELINE	SO. 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	4	11
10493	3	13
10494	2	13
10495	5	6
10496	5	4
10497	5	7
10498	- 0 -	14
10499	10	7
10500	6	4
10501	2	13
TOTALS	158	294

SUMMARY TO ACCOMPANY DESCRIPTIVE REPORT
T-10496

Map T-10496 is one of thirty planimetric maps comprising Job PH-163. The project covers the Narragansett Bay, Rhode Island-Massachusetts area.

The project was field inspected prior to compilation. The area covered was bridged by multiplex and compiled by Kelsh plotter.

The addendum to this Summary includes information relating to the adequacy and accuracy of project maps.

A cronaflex copy of the map will be registered.

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

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

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FIELD INSPECTION REPORT

Project 25120

Map T-10496

Please refer to the Field Inspection Report for Map T-10494
for all data pertaining to this map.

Martin C. Moody
Martin C. Moody
Cartographic Survey Aid

Approved:

Ira R. Rubottom

Ira R. Rubottom
Chief of Party

FIELD INSPECTION PHOTOS -

56W 200, 201, 202

227, 228

PHOTOGRAPHS 56W 200, 201,
228 WERE MISSING
AT THE TIME OF
FINAL REVIEW -
APPARENTLY LOST.

MAP T- 10496

PROJECT NO.:

Ph-163

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

[illegible]

1 FT = 3048006 METER

1 FT. = 3048005 METER
J. C. Richter
COMPUTED BY:

DATE 18 July 1957

CHECKED BY: Henry P. Eichert

DATE _____

23 July 1957

COMM-DC-57843

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COMPILATION REPORT
Survey T-10496
Project Ph-163

The photogrammetric plot report for this survey is part of the descriptive report for survey No. T-10472.

31. DELINEATION

The delineation was done by Kelsh plotter.

32. CONTROL

Horizontal control was adequate.
Vertical control is inapplicable.

33. SUPPLEMENTAL DATA

Map of U. S. Naval Air Station, Quonset Point, R. I. and adjacent Naval Reservations, dated 30 June 1955.

Copies of boat sheets H-8313 and H-8395 for comparison. Final name sheet dated 5 March 1957.

34. CONTOURS AND DRAINAGE

Contours are inapplicable.
Drainage is complete.

35. SHORELINE AND ALONGSHORE DETAILS

All shoreline was field inspected and is complete and adequate.

The low water line is from field inspection.

36. OFFSHORE DETAILS

Refer to paragraph 8 of the field report.

The high point of Halfway Rock was identified in the office. The position agrees closely with the old position of the day beacon which was not recovered.

37. LANDMARKS AND AIDS

Forms 567 were submitted for one aid and two landmarks to be charted and one landmark to be deleted.

38. CONTROL FOR FUTURE SURVEYS

No recoverable topographic stations were established. There were only four signals in the area; two were landmarks and one was not identified. Their photogrammetric positions were in fair agreement with the planetable positions, sheet Ph-1-J-56.

Refer also to letter 711/rab dated 7 August 1958, subject: "Smooth sheet H-8395, project CS 13870 (Ph-163) Narragansett Bay", copy of which is attached to report for T-10489.

39. JUNCTIONS

Junction has been made with the following:

To the north with survey No. T-10489.

To the east with survey No. T-10497.

To the south with survey No. T-10500.

To the west with survey No. T-10495.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41 thru 45

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

U. S. G. S. Prudence Island, R. I. quadrangle, scale 1:24,000, edition of 1958.

Bureau Survey T-5751(1944), scale 1:20,000, date of issue 1949.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 236, scale 1:20,000, published 17 February 1958, revised 9/22/58.

Items to be applied to nautical charts immediately: None.

Items to be carried forward: None.

Approved and forwarded

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

Respectfully submitted
19 December 1958

Joseph W. Vonasek
Joseph W. Vonasek
Carto. (Photo.)

* NOTE 2 FORMS 567 Submitted (TANK & Cupola) REFER TO FORMS 567

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PHOTOGRAMMETRIC OFFICE REVIEW

T. 10496

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. Horvath Reviewer Henry J. Eubank 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:

REVIEW REPORT
T-10496
December 1966

61. General Statement

Only a small part of this survey (area along the west side of Hope Island) has been used in support of hydrography (H-8313). The hydrographic survey has been registered. No changes were made in photogrammetric survey details during hydrography or verification of the survey.

The area mapped on T-10496 is covered by hydrographic survey H-6859, dated 1943.

62. Comparison with Registered Topographic Surveys

T-5751	1:20,000	1944
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Map T-10496 supersedes the prior survey for nautical charting purposes in the common area.

63. Comparison with Maps of Other Agencies

No significant differences were noted.

64. and 65. Comparison with Hydrographic Surveys and Nautical Charts

H-8313	1:10,000	1956
	Refer to side heading 61.	
H-6859	1:10,000	1943
Chart 263	1:20,000	revised 11/66

A rock awash mapped on T-10496 -- located approximately 100 feet ground distance south of Halfway Rock, latitude $41^{\circ} 33.8'$ and longitude $71^{\circ} 19.95'$ -- is not shown on either the hydrographic survey or the chart. H-6856 shows a 13 ft. sounding at the location. The rock was not inspected on the photographs in the field. The photographs are not clear enough for positive identification. The object mapped appears to be a reef. *Added reef symbol to Ch 236. ag 7-22-68.*

A pier mapped on H-6859 and chart 263, latitude $41^{\circ} 34.9'$ and longitude $71^{\circ} 19.1'$, is shown as a pier in ruins on T-10496. The pier was not inspected on the photographs in

the field. It does appear to be in ruins (Photographs 56-W-229 and 230).

Both the above discrepancies were reported to the Marine Chart Division at the time of this review.

66. Adequacy of Results and Future Surveys

Survey H-6895 and nautical chart 263 show a considerable amount of rock information that is not mapped on T-10496. The photographs used in the compilation of T-10496 was poor for the purpose of interpreting rocks and field inspection was incomplete.

The addendum to the Summary for this report includes information relating to the accuracy and adequacy of project maps. The maps will be registered; remapping, however, is recommended for future hydrographic survey support purposes.

Reviewed by:

S. G. Blankenbaker
S. G. Blankenbaker

Approved by:

Charles L. Hume
Chief, Photogrammetric Branch

J. Ralph Sobieralski FEB 09 1968
Chief, Photogrammetry Division

Charles D. Boyer 2/26/68
Chief, Marine Chart Division

17-
1-9-68

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Rhode Island)

T-10496

✓Brickhouse Swamp

✓Conanicut Island

✓Conanicut Point

✓Crows Swamp

✓Despair Island

✓East Passage

✓Fiske Rock

✓Flat Point

✓Gooseberry Island

✓Halfway Rock

✓Hope Island

✓Jamestown

✓Mill Creek

✓Narragansett Bay

✓Portsmouth-jpf
✓Prudence

✓Prudence Island

✓Round Rock

✓Schoolhouse Swamp

✓Scup Rock

✓Seal Rock

✓South Point

Approved by:

A. Joseph Wraight

A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett

Frank W. Pickett
Cartographic Technician

STRIKE OUT ONE

31 October 1958

NONFLOATING AIDS OR? LANDMARKS FOR CHARTS

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

The positions given have been checked after listing by **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**

STRIKE OUT ONE

NONFLOATING AIDS/OR LANDMARKS FOR CHARTS

Baltimore, Md.

16 October 1958

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

The positions given have been checked after listing by

William F. Deane

Chief of Party.

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

~~TOP SECRET//SI//NF//NF~~
~~TOP SECRET//SI//NF//NF~~

STRIKE OUT ONE

NONFLOATING AIDS/OR LANDMARKS FOR CHARTS

Morgan City, La.

5 Feb.

1957

I recommend that the following objects which have ~~shipped/lost~~ ^{shipped/lost} been inspected from seaward to determine their value as landmarks be ~~checked/lost~~ ^{checked/lost} (deleted from) the charts indicated.

The positions given have been checked after listing by Isaiah Y. Fitzgerald

7s/ I. R. Rubottom

[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**

Comm-DC 28356

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NOTE TO REVIEWER
T-10496

The approximate Portsmouth-Jamestown boundary was delineated between the "indefinite" position indicated on the Wickford quadrangle and the end of the Portsmouth-Middletown line (T-10501). The north end of the Jamestown-Middletown line could not be mapped because no information was available for positions. This line was not delineated on survey T-10500.

