

10493

Original

Diag. Cht. No. 1210-2.

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Planimetric
Field No. Ph-163	Office No. T-10493
LOCALITY	
State	Massachusetts
General locality	Narragansett Bay
Locality	North Westport
<u>1956</u>	
CHIEF OF PARTY	
Ira R. Rubottom, Chief of Party	
W. E. Randall, Baltimore District Officer	
LIBRARY & ARCHIVES	
DATE	February 26, 1968

COMM-DC 61300

10493

DESCRIPTIVE REPORT - DATA RECORD

- 2 -

T - 10493

Ph-163

Project No. (II): ~~Ph-163~~ Quadrangle Name (IV):

Field Office (II): East Providence, R. I.

Chief of Party: Ira R. Rubottom

Photogrammetric Office (III): Baltimore, Maryland

Officer-in-Charge: William E. Randall

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):

~~Mean Low Water~~ MHW
Elevations shown as (25) refer to mean high water
Elevations shown as (2) refer to sounding datum
i.e., mean low water or mean lower low water.

Reference Station (III): FALL RIVER TIVERTON CORNER 4, 1891

Lat.: 41° 39' 36.964 (1140.4 m) Long.: 71° 07' 59.035 (1365.8 m) Adjusted
~~unadjusted~~

Plane Coordinates (IV):

State:

Zone:

Y=

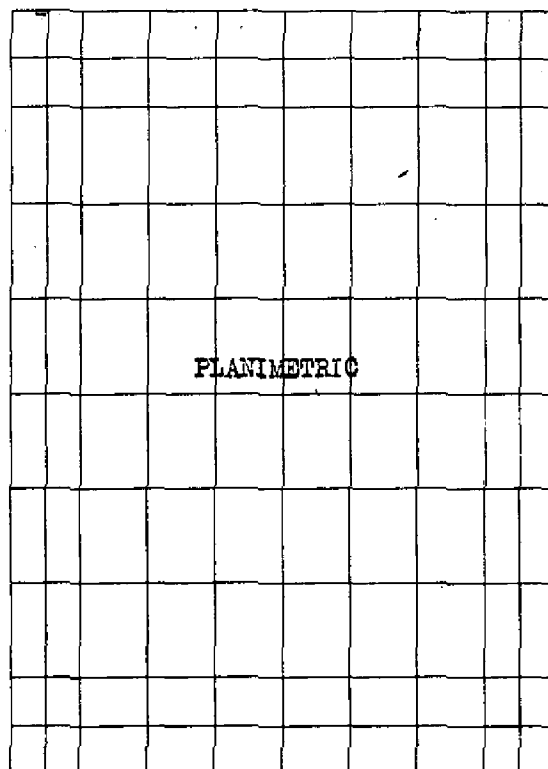
X=

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° 07.5'



41° 41.25'

41° 37.5'

71° 03.75'

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

DESCRIPTIVE REPORT - DATA RECORD

- 4 -

Field Inspection by (II): John R. Smith

Date: May - October 1956

Planetable contouring by (II):

Date:

Completion Surveys by (II): NO FIELD EDIT

Date:

Mean High Water Location (III) (State date and method of location): Inapplicable

Projection and Grids ruled by (IV): J. B. Phillips

Date: 8/7/57

Projection and Grids checked by (IV): J. B. Phillips

Date: 8/7/57

Control plotted by (III): E. L. Rolle

Date: 8/27/57

Control checked by (III): B. Kurs

Date: 9/4/57

~~Control checked~~ Stereoscopic

Control extension by (III):

E. L. Rolle

Date: 3/19/58

Planimetry J. C. Richter

Stereoscopic Instrument compilation (III):

Date: 1/23/59

~~Control~~

Date:

scribed

Manuscript ~~checked~~ by (III):

J. C. Cregan

Date: 10/18/60

Photogrammetric Office Review by (III):

E. L. Rolle

Date: 9/13/60

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

Date:

DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): USC&GS Type "W" Camera 6" focal length.

- 5 -

Number	Date	PHOTOGRAPHS (III) Time (EST)	Scale	Stage of Tide
56-W-295 thru 297	5/1/56	1017	1:30,000	No tide water
56-W-334 and 335	"	1057	"	" " "

Tide (III)
No tidewater

Reference Station:
Subordinate Station:
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

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

Date: JAN., 1968

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

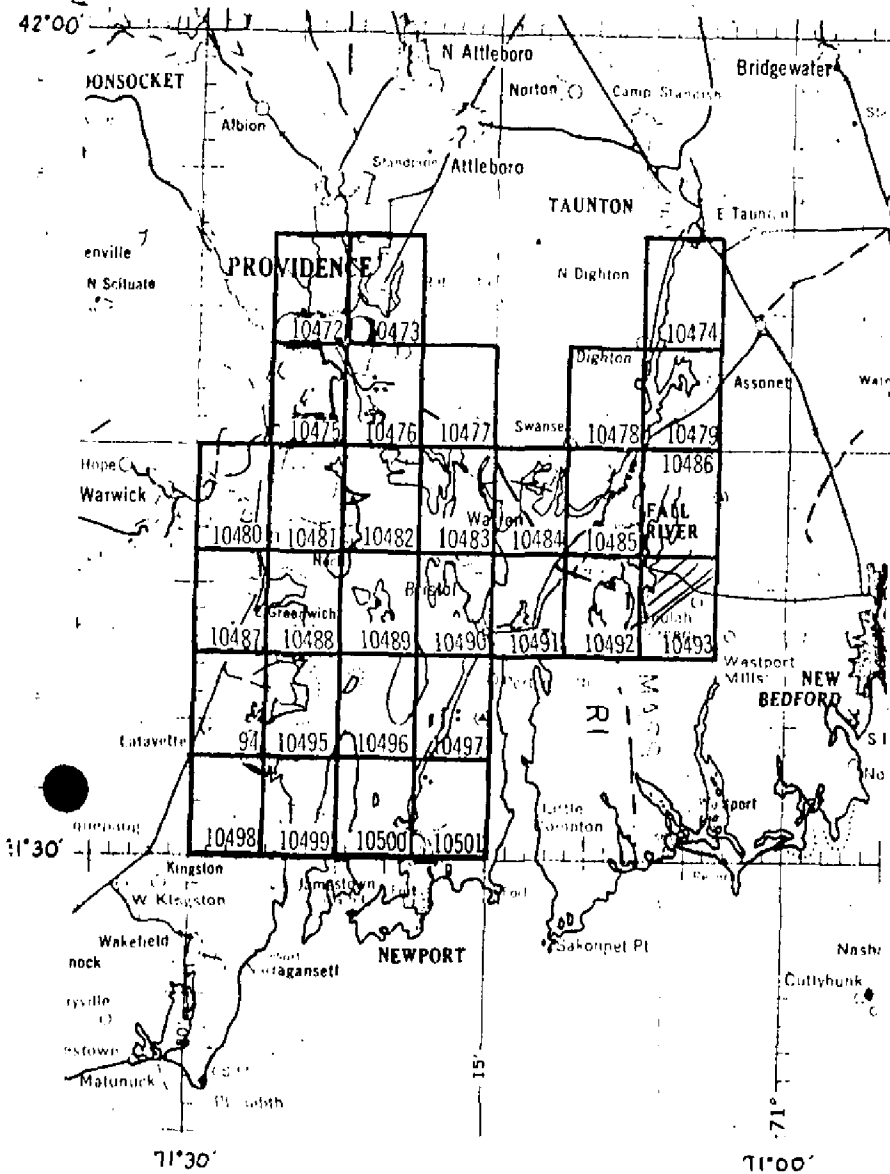
Land Area (Sq. Statute Miles) (III): 13.5 sq. mi.
Shoreline (More than 200 meters to opposite shore) (III): None
Shoreline (Less than 200 meters to opposite shore) (III): None
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 5 Recovered: 1 Identified: 1
Number of BMs searched for (II): Recovered:
Number of Recoverable Photo Stations established (III): None Identified:
Number of Temporary Photo Hydro Stations established (III): None

Remarks:

PLANIMETRIC MAPPING PROJECT PH - 163

Narragansett Bay, Mass. - Rhode Island

- 6 -



OFFICIAL MILEAGE FOR COST ACC		
SHEET NO.	Lin. Mi. SHORELINE	ARE SQ.
10472	10	12
10473	7	12
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-10493

T-10493 is one of 30 planimetric maps comprising Project PH-163. Project maps cover the Narragansett Bay, Rhode Island, Massachusetts, area.

Field inspection preceded compilation. This map was not field edited.

The project area was bridged by multiplex and compiled by Kelsh plotter.

The addendum to this summary includes a discussion of project map accuracy and adequacy.

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

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

-10-
-X-

FIELD INSPECTION REPORT

Project 25120

Map T-10493

Please refer to the Field Inspection Report for Map T-10474
for all data pertaining to this map.

Martin C. Moody
Martin C. Moody
Cartographic Survey Aid

Approved:

for *Garish y. Fitzgerald*
Ira R. Rubottom
Chief of Party

FIELD INSPECTION PHOTOGRAPHS -
56W 273, 275, 295, 296, 297
PHOTOGRAPHS 275 AND 295 WERE
MISSING AT THE TIME OF FINAL
REVIEW - APPARENTLY LOST,

FACTOR DISTANCE
FROM GRID OR PROJECTION LINE
IN METERS
FORWARD (BACK)

[illegible]

100

1

COMM-DC-57843

-12-
-2-

COMPILATION REPORT
Project Ph-163
T-10493

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

31. DELINEATION

The Kelsh plotter was used for delineation.

32. CONTROL

Horizontal control was adequate.
Vertical control is inapplicable.

33. SUPPLEMENTAL DATA

Geographic Name Standard, dated 5 March 1957.

34. CONTOURS AND DRAINAGE

Drainage is complete.
Contours are inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS

The shoreline of North and South Watuppa Ponds was delineated mostly from office interpretation. There is no tidal water within the limits of this manuscript.

36. OFFSHORE DETAIL

An abundance of rocks are scattered throughout the water area on this quad. By office interpretation, most of these rocks were delineated. In congested areas only the more prominent rocks were shown.

37. LANDMARKS AND AIDS

None.

38. CONTROL FOR FUTURE SURVEYS

None.

39. JUNCTIONS

To the north T-10486.
To the south T-11429 (Ph-142).
To the west T-10492.
No contemporary survey to the east.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41. BOUNDARIES

The boundary between the city of Fall River and the town of Westport in the northwest corner of map was delineated from U.S.G.S. 7½ minute quad. of Fall River East, Mass., 1951. This quad. was also used to delineate the boundary for the Watuppa Reservation. Adjustments were made to identifiable features.

The boundaries between the city of Fall River and the towns of Westport and Dartmouth in the northeast corner of map were delineated using the positions of two lost boundary monuments; a photogrammetric position of a boundary monument, and the above mentioned quad.

42 through 45.

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

U.S.G.S. 7½ minute quad. Fall River East, Mass., scale 1:31,680, edition of 1951.
Map of Bristol County, Mass., 1944.

47. COMPARISON WITH NAUTICAL CHARTS

C&GS Chart No. 353, scale 1:40,000, 19th edition, 10 March 1958, revised 25 January 1960.

Items to be applied to nautical charts immediately: None.
Items to be carried forward: None.

Respectfully submitted
13 September 1960

Edward L. Rolle
Edward L. Rolle
Carto. (Photo.)

Approved and forwarded

William E. Randall
William E. Randall
LCDR, C&GS
Baltimore District Office

PHOTOGRAMMETRIC OFFICE REVIEW

T. 10493

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

CONTROL STATIONS

4a. Classification label _____

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

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines ED 32. Public land lines X

MISCELLANEOUS

33. Geographic names ED 34. Junctions ED 35. Legibility of the manuscript ED 36. Discrepancy overlay ED 37. Descriptive Report ED 38. Field inspection photographs ED 39. Forms ED
40. Edward L. Rolfe Joseph Stenberg
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.

Compiler

Supervisor

43. Remarks:

- 15 -

Review Report
T-10493
January 1968

62. Comparison with Registered Topographic Surveys

No prior registered Bureau surveys cover the mapped area.

63. Comparison with Maps of Other Agencies

U.S.G.S. Fall River East, Mass. 1:24,000 1963

No significant differences were noted.

64. Comparison with Hydrographic Surveys

No Bureau hydrography has been accomplished in the mapped area.

65. Comparison with Nautical Charts

353 1:40,000 revised 1/17/66

No significant differences were noted.

66. Adequacy of Results and Future Surveys

The addendum to the Summary for this report includes a discussion of project map accuracy and adequacy. Registration of project maps is recommended. For those project maps covering areas of tidal waters, remapping is recommended for future hydrographic survey support purposes. For this survey, many offshore rocks located in large "ponds" (lakes) were delineated from office inspection of photographs. This information has not been carried forward to Chart 353 - probably because the chart is not intended for use in small craft navigation in the area. The mapped rocks should be checked in the field (or new photography obtained) prior to charting for purposes of use in navigation.

Reviewed by

S. G. Blankenbaker
S. G. Blankenbaker

Approved by

Charles L. Hume
Chief, Photogrammetric Branch

J. Ralph Sobieralski MAR 26 1962
Chief, Photogrammetry Division

John D. Boyer
Chief, Marine Chart Div.

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Mass. & R. I.)

T-10493

Berryman Corner
Beulah Corners
Blossom Road
Bread and Cheese Brook
Briggs Road
Brownell Corner
Dartmouth
Davis Road
Fall River
First Christian Church
Gifford Road
Highland Avenue
Hillcrest
Lady of Grace Church

Lakeside
Mouse Mill Road
New York, New Haven and Hartford
North Watuppa Pond
Old County Road * See note
~~Old Bedford Road~~ ✓ 568
Sanford Road
South Watuppa Pond
Suburban Park
The Narrows
Watuppa Grange
Watuppa Reservation
Westport
Yellow Hill

Approved by:

A. Joseph Wraight
A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett
Frank W. Pickett
Cartographic Technician

* This is state Route 177 (southern portion of map) - Negative and
vault copy of map produced prior to preparation of
subject list. 568

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-10493

INSTRUCTIONS

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

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.

[illegible]