**Diag. Chp. No. 1210-2.**

**Form 864**

**U. S. DEPARTMENT OF COMMERCE**

**COAST AND GEODETIC SURVEY**

**DESCRIPTIVE REPORT**

<table>
<thead>
<tr>
<th>Type of Survey</th>
<th>Planimetric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field No.</td>
<td>Ph-163</td>
</tr>
<tr>
<td>Office No.</td>
<td>T-10492</td>
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</tbody>
</table>

**LOCALITY**

<table>
<thead>
<tr>
<th>State</th>
<th>Massachusetts - Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>General locality</td>
<td>Narragansett Bay</td>
</tr>
<tr>
<td>Locality</td>
<td>Fall River (south)</td>
</tr>
</tbody>
</table>

1956

**CHIEF OF PARTY**

Ira R. Rubottom, Chief of Party
W. E. Randall, Baltimore District Officer

**LIBRARY & ARCHIVES**

**DATE** 2/26/63
Ph-163

Project No. (II): ARS-64

Quadrangle Name (IV):

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

Chief of Party: Irq R. Rubottom

Photogrammetric Office (III): Baltimore, Maryland

Officer-in-Charge: William E. Randall

Instructions dated (II) (III):

(II) 9 April 1956
13 March 1957

Method of Compilation (III): Kelsh plotter

Stereoscopic Plotting Instrument Scale (III): 1:6,000
(Pantograph ratio 3/5)

Manuscript Scale (III): 1:10,000

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

Reference Station (III): FALL RIVER - TIVERTON CORNER 3, 1891

Lat.: 41° 40.05° 316(164.0) Long.: 71° 10° 35° 052 (829.4)

Adjusted

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.
Areas contoured by various personnel
(Show name within area)
(H) (HI)
Field Inspection by (II): Martin C. Moody

Planetary contouring by (II):

Completion Surveys by (II): NO FIELD EDIT

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

Projection and Grids ruled by (IV): J. E. Phillips
Date: 8/6/57

Projection and Grids checked by (IV): J. B. Phillips
Date: 8/6/57

Control plotted by (III): E. L. Rolle
Date: 8/27/57

Control checked by (III): B. Kurs
Date: 9/4/57

Stereoscopic Control extension by (III): E. L. Rolle
Date: 3/13/58

Stereoscopic Instrument compilation (III): J. C. Richter
Date: 2/10/59

Manuscript checked by (III): C. A. Lipscomb
Date: 9/28/60

Photogrammetric Office Review by (III): E. L. Rolle
Date: 7/12/60

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

Date: 
DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): USG&GS Type "Wt 6" focal length

PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time (EST)</th>
<th>Scale</th>
<th>Stage of Tide</th>
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<tbody>
<tr>
<td>56-W-273 and 274</td>
<td>5/1/56</td>
<td>0946</td>
<td>1:30,000</td>
<td>No tidal waters</td>
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<tr>
<td>56-W-332 and 333</td>
<td>&quot;</td>
<td>1057</td>
<td>&quot;</td>
<td>&quot;</td>
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</table>

Tide (III)

No tide water

Reference Station:
Subordinate Station:
Subordinate Station:

Washington Office Review by (IV): S.G. BLANKENBAKER
Date: JAN. 1968

Final Drafting by (IV):
Drafting verified for reproduction by (IV):
Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 12 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): 1
Number of Triangulation Stations searched for (II): 6
Recovered: 5
Identified: 1
Number of BMs searched for (II):
Recovered: Identified:
Number of Recoverable Photo Stations established (III): None.
Number of Temporary Photo Hydro Stations established (III): None.

Remarks:
SUMMARY TO ACCOMPANY DESCRIPTIVE REPORT

T-10492

T-10492 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 a 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.
ADDENDUM TO SUMMARIES TO ACCOMPANY
JOB PH-165 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

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-10492

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

Martin C. Moody
Cartographic Survey Aid

Approved:
Sarah J. Fitzgerald
Ira R. Subottom
Chief of Party

FIELD INSPECTION PHOTOGRAPHS—
56W 260, 262, 273, 274, 275

PHOTOGRAPHS 260 AND 275 WERE MISSING AT THE TIME OF FINAL REVIEW—APPARENTLY LOST.
<table>
<thead>
<tr>
<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR ( \nu ) COORDINATE</th>
<th>LONGITUDE OR ( x ) COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>DATUM CORRECTION</th>
<th>N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
<th>FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS</th>
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<tbody>
<tr>
<td>FALL RIVER-TIVERTON COR 4, 1891</td>
<td>G.P. List p. 643</td>
<td>N.A. 1927</td>
<td>41 39</td>
<td>36.964</td>
<td>1100.4</td>
<td>710.7</td>
<td>1365.8</td>
<td>22.4</td>
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<td>FALL RIVER CORNER 4, 1887</td>
<td>p. 621</td>
<td>&quot;</td>
<td>41 40</td>
<td>15.620</td>
<td>481.9</td>
<td>1369.1</td>
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<td>FALL RIVER-TIVERTON CORNER 3, 1891</td>
<td>p. 155</td>
<td>&quot;</td>
<td>41 40</td>
<td>05.316</td>
<td>164.0</td>
<td>1687.0</td>
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<td>CUPOLA, 1887</td>
<td>p. 622</td>
<td>&quot;</td>
<td>41 40</td>
<td>14.925</td>
<td>460.5</td>
<td>1390.6</td>
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<tr>
<td>Sub Pt FALL RIVER-TIVERTON CORNER 4, 1891</td>
<td>Comp</td>
<td>&quot;</td>
<td>41 39</td>
<td>36.964</td>
<td>1100.4</td>
<td>710.7</td>
<td>1377.8</td>
<td>10.4</td>
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</table>

A. K. Heywood
COMPUTED BY: J. C. Richter
DATE: 3/27/57
CHECKED BY: J. C. Cregan
DATE: 8/15/57
COMPILATION REPORT
T-10492

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. Two stateline boundary monuments were established in the Kelsh model using C.S.I. card identification. These two monuments, plus two triangulation station corners, were used to delineate the state boundary between Massachusetts and Rhode Island.

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

All shoreline was delineated from office interpretation. This consisted of large ponds in the area. 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 quadrangle. By office interpretation most of these rocks were delineated. In congested areas only the more prominent rocks were shown.

37. LANDMARKS AND AIDS

Form 567 has been submitted. Copy is bound with Descriptive Report for T-10485.
38. CONTROL FOR FUTURE SURVEYS

None.

39. JUNCTIONS

To the north with T-10485.
To the east with T-10493.
To the west with T-10491.
To the south with T-11428 (Ph-142).

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41. BOUNDARIES

The boundary between the town of Westport, Massachusetts and the city of Fall River, Massachusetts was delineated from U.S. G. S. 7½ minute series of Fall River, Massachusetts-Rhode Island.

42. through 45.

Inapplicable.

46. COMPARISON WITH EXISTING MAPS


Map of city of Fall River, Mass., 1903.

47. COMPARISON WITH NAUTICAL CHARTS


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

Respectfully submitted
19 October 1960
Edward L. Rolle
Carto. (Photo.)

Approved and forwarded

William E. Randall
LCDR, C&GS
Baltimore District Officer
PHOTOGRAMMETRIC OFFICE REVIEW

T-10492

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

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. Reviewer: Edward A. Welle

Supervisor: Joseph Steinberg

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.

43. Remarks:

Compiler

Supervisor

COMM. DC 34529
Review Report  
T-10492  
Jan. 1968

62. **Comparison with Registered Topographic Surveys**

T-5750  
1:20,000  
1949

T-10492 supersedes the prior survey for nautical charting purposes in the common area.

63. **Comparison with Maps of Other Agencies**

USGS Fall River, Mass. - Rhode Island  
1:24,000  
1949

No significant differences were noted.

64. **Comparison with Hydrographic Surveys**

Inapplicable - there is no tidal water within the limits of this map.

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 the 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

[Signature]
S. G. Blankenbaker
Approved by

[Signature]
Chief, Photogrammetric Branch

[Ralph Sotirovski] MAR 2 & 1962
Chief, Photogrammetry Division

[Signature]
Chief, Marine Chart Division
GEOGRAPHIC NAMES

FINAL NAME SHEET

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

T-10492

-Bay Street
-Bleachery Pond
-Blessed Sacrament School
-Bliss Corners
-Brayton Avenue
-Brayton Avenue School
-Bristol County
-Bulgarmarsh Road
-Cook Hill
-Cook Pond
-Coughlin School
-Eagleville
-Eagleville Road
-Eastern Avenue
-Fall River
-Fish Road
-Flint Village
-Globe Street
-Globe Village
-Green School
-Healy School
-Henry Lord Junior High School
-Jewish Cemetery
-Laurel Lake School
-Laurel Street
-Letourneau School
-Maplewood Park
-Massachusetts
-Newhall Street
-Newport County
-New York, New Haven and Hartford
-North Tiverton
-Notre Dame Cemetery
-Old County Road
-Plymouth Avenue
-Pocasset Cedar Swamp
-Quequechan River
-Ranger School
-Rhode Island
-Saint Marys Cemetery
-Saint Patricks School
-Sawdy Pond
-Slade School
-South Main Street
-South Watuppa Pond
-Stafford Pond
-Stafford Road
-State Avenue
-Stone School
-Stony Brook
-Sucker Brook
-Tiverton
-Townsend Hill
-Tucker Street
-Warren Street
-Watson School
-Westport
-Woodman Street

Approved by:

A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett
Cartographic Technician
**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.

<table>
<thead>
<tr>
<th>CHART</th>
<th>DATE</th>
<th>CARTOGRAPHER</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>850</td>
<td>6-18-69</td>
<td>JW Maloney</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. Superseded by Bp-93368</td>
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