**Form 804**

**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-10482</td>
</tr>
</tbody>
</table>

**LOCALITY**

<table>
<thead>
<tr>
<th>State</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>General locality</td>
<td>Narragansett Bay</td>
</tr>
<tr>
<td>Locality</td>
<td>Barrington</td>
</tr>
</tbody>
</table>

**1954 - 1955**

**CHIEF OF PARTY**

Ira R. Rubottom  Chief of Party
William E. Randall, Balt. Dist. Officer

**LIBRARY & ARCHIVES**

**DATE**

11 FEB 1958
Ph-163

Project No. (II): 2626

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

Method of Compilation (III): Kelsh plotter

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

1:16,000 (Kelsh-pantograph ratio 3/5)

Scale Factor (III): 1.000

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

SEP 21  1960

Applied to Chart No.

Date: Date registered (IV):

Publication Scale (IV):

Geographic Datum (III): N.A. 1927

Publication date (IV):

Reference Station (III): CONIMIGUT 2, 1956

Lat.: 41° 43' 01.900" (58.6 m) Long.: 71° 21' 31.658" (731.8 m) Adjusted

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.
Areas contoured by various personnel
(Show name within area)
(II) (III)
Field Inspection by (II): Mathew A. Stewart
Leo F. Beugnet

Planetary contouring by (II):

Completion Surveys by (II):

Mean High Water Location (III) (State date and method of location):
1956 (Photogrammetric)

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

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

Control plotted by (III): J. C. Cregan

Control checked by (III): D. M. Brant

E. L. Rolle

Control extension by (III): Planimetery E. Kurs

Stereoscopic Instrument compilation (III):

Manuscript delineated by (III):

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

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

Number: 56-W-207, 208
Date: 5/1/56
Time: 0904
Scale: 1:10,000
Stage of Tide: 2.1" above MLLW

Tide (III)
(from predicted tables)

<table>
<thead>
<tr>
<th>Ratio of Ranges</th>
<th>Mean Range</th>
<th>Spring Range</th>
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</thead>
<tbody>
<tr>
<td>3.5</td>
<td>4.4</td>
<td>5.7</td>
</tr>
<tr>
<td>4.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reference Station: Newport
Subordinate Station: Nayatt Point

Washington Office Review by (IV): S. C. Blankenhauer

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

Land Area (Sq. Statute Miles) (III): 5
Shoreline (More than 200 meters to opposite shore) (III): 9 st. mi.
Shoreline (Less than 200 meters to opposite shore) (III): 2 st. mi.
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 12
Recovered: 4
Identified: 2

Remarks:
Two (2) third-order triangulation stations established.

FIELD EDIT:
LIMITED FIELD EDIT BY HYDROGRAPHIC SURVEY PARTY, H-8314
DATE: 4-28-56

NO FIELD EDIT SHEET SUBMITTED
SUMMARY TO ACCOMPANY DESCRIPTIVE REPORTS
T-10477, T-10481, T-10482 and T-10483

Job PH-163 is a planimetric survey project comprised of thirty maps covering Narragansett Bay, Rhode Island-Massachusetts.

A complete field inspection preceded compilation. Limited field edit was accomplished in conjunction with contemporary hydrographic surveys. The project was bridged by multiplex and compiled by Kelsh plotter.

Refer to the accompanying addendum concerning adequacy and accuracy of the subject maps and recommendations regarding future surveys.

Cronaflex copies of the maps 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

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-10482

Please refer to the Field Inspection Report for Map T-10482 for all data pertaining to this map.

Leo F. Beugnet
Leo F. Beugnet
Cartographic Survey Aid

Approved:
Irma R. Rubottom
Chief of Party

FIELD INSPECTION PHOTOGRAPHS—
56W-182 thru 184
56W 208 thru 209
54W 1082 thru 1084
54W 1099.0, 1100, 1135

PHOTOGRAPHS 56W 182, 208, 209 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 y-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>NAYATT LIGHTHOUSE, 1863</td>
<td>GP List, p. 109</td>
<td>N.A. 1927</td>
<td>41 43</td>
<td>30.132</td>
<td>929.6 (921.5)</td>
<td></td>
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<td></td>
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<tr>
<td>BULLOCK POINT LIGHT, 1956</td>
<td>p. 169</td>
<td>&quot;</td>
<td>41 20</td>
<td>21.964</td>
<td>507.7 (879.1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONIMICUT LIGHTHOUSE, 1897</td>
<td>p. 109</td>
<td>&quot;</td>
<td>41 43</td>
<td>00.770</td>
<td>23.8 (1827.3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONIMICUT 2, 1956</td>
<td>p. 168</td>
<td>&quot;</td>
<td>41 20</td>
<td>14.139</td>
<td>1021.6 (365.4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROCKY POINT (USE) 1913</td>
<td>p. 109</td>
<td>&quot;</td>
<td>41 21</td>
<td>29.329</td>
<td>904.9 (946.2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WEST BARRINGTON WATER TOWER, 1912</td>
<td>p. 112</td>
<td>&quot;</td>
<td>41 44</td>
<td>50.110</td>
<td>1546.0 (305.1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Photogrammetric Plot Report is part of the descriptive report for survey T-10472.

31. **DELINEATION**

The Kelsh plotter was used for delineation.

32. **CONTROL**

Horizontal control was adequate.

33. **SUPPLEMENTAL DATA**

Final Name Standard dated 5 March 1957.
Copy of Boat Sheet, H-8314 for comparison.
Map of the Town of East Providence, dated February 1954.

34. **CONTOURS AND DRAINAGE**

Contours: Inapplicable.
Drainage is complete.

35. **SHORELINE AND ALONGSHORE DETAILS**

All shoreline details are from field inspection.
The low water lines are from field inspection.

Refer to paragraph 7 of the field report regarding the location of the submerged cable in this area.

36. **OFFSHORE DETAILS**

Refer to paragraph 8 of the field report regarding completeness of offshore details.

37. **LANDMARKS AND AIDS**

Forms 567 were submitted for two aids and four landmarks to be charted.
38. **CONTROL FOR FUTURE SURVEYS**

Of the twenty-eight signals in the area of this survey, fifteen could be verified in the models. Their positions were in fair to good agreement with the graphic control surveys (Ph-1-C-56, Ph-1-D\textsuperscript{N}-56, Ph-1-D\textsubscript{2}-56, Ph-1-E-56). Refer to the "Descriptive Report to Accompany Graphic Control Survey Sheets Ph-1-A-56 through Ph-1-N-56" submitted for this project.

No recoverable topographic stations were established.

39. **JUNCTIONS**

To the north with T-10476.
To the east with T-10483.
To the south with T-10489.
To the west with T-10481.

40. **HORIZONTAL AND VERTICAL ACCURACY**

No comment.

41. **BOUNDARIES**

The county boundaries were delineated in the vertical projector from the U.S.G.S. Bristol quadrangle. Only short portions could be delineated.

42. through 45.

Inapplicable.

46. **COMPARISON WITH EXISTING MAPS**

U.S.G.S. 7½ minute quadrangle, Bristol, R.I. - Massachusetts, scale 1:24,000; edition of 1955.
Bureau Survey T-5749 (1944) date of issue, July 1949.

47. **COMPARISON WITH NAUTICAL CHARTS**

Chart No. 278, scale 1:20,000 published Nov. 11, 1946. Revised 8/25/58.
Items to be applied to Nautical Charts immediately: None.
Items to be carried forward: None.

Respectfully submitted
23 October 1959

Approved and forwarded

William E. Randall
Lcdr. C&GS
Baltimore District Officer

Joseph W. Vonasek
Super. Carto. (Photo.)
PHOTOGRAMMETRIC OFFICE REVIEW

T. 10482

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. Aides to navigation  
17. Landmarks  
18. Other alongshore physical features  
19. Other alongshore cultural features  

PHYSICAL FEATURES

20. Water features  
21. Natural ground cover  
22. Planetary 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  
Supervisor, Review Section of 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. BLAUKENBACHER  
Compiler  
Supervisor  

43. Remarks: NOV. 1966

COMM=OC 34529
REVIEW REPORT
Planimetric Maps
T-10477, T-10481, T-10482 and T-10483
November 1966

61. General Statement

These surveys provided, in part, hydrographic support data for surveys H-8313, 8314 and 8396. Changes in photogrammetric survey details, shown in red on the hydrographic surveys, were applied to the subject maps during this review.

62. thru 65. Comparisons

All prior Bureau topographic information (topographic and hydrographic surveys - and the subject maps) located in the alongshore area was evaluated by hydrographic survey parties and/or verifiers. Prior Bureau surveys were not compared with the new maps during the subject review.

Comparison was made with contemporary hydrographic surveys (refer to side headings 61 and 66, the Summary and its addendum).

Comparison with nautical charts and maps of other agencies were made by photogrammetric compilers. A number of discrepancies - involving features (school and street names and boundaries) not applicable to either hydrographic surveys or modern charts - between these surveys and USGS quadrangles were noted on discrepancy prints. These discrepancies can be disposed of only through a field check. The compilation report for project map T-10475 contains a general discussion of boundary discrepancies.

66. Adequacy of Results and Future Surveys

Hydrographic survey verifiers experienced considerable difficulty in adjusting hydrography (H-8396) and in mapping rock information. Some plane table signal positions were corrected by photogrammetric methods prior to completion of smooth sheet plotting. Refer to the Summary and its addendum included in the Descriptive Report concerning the adequacy of results and future surveys.

Reviewed by:

Approved by:

Chief, Photogrammetric Branch

Chief, Photogrammetry Division

Chief, Marine Chart Division
GEOGRAPHIC NAMES
FINALE NAME SHEET
PH-163 (Rhode Island
T-10482

- Allen Ledge
- Annawomscutt
- Barren Ledge
- Barrington
- Barrington Beach
- Barrington River
- Bay Spring
- Bullock Cove
- Bullock Neck
- Bullock Point
- Conimicut
- Conimicut Point
- Drown Cove
- East Providence
- Echo Lake
- Highland Beach
- Longmeadow
- Mussachuck Creek
- Narragansett Bay
- Nyatt
- Nyatt Point
- Old Mill Creek
- Providence River
- River View
- Rocky Point
- Shawomet
- Warwick
- Warwick Neck
- West Barrington

Approved by:
A. J. Wright
Chief Geographer

Prepared by:
Frank W. Pickett
Cartographic Technician
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated. The positions given have been checked after listing by Leo F. Beugnet.

### Rhode Island

<table>
<thead>
<tr>
<th>Charting Name</th>
<th>Description</th>
<th>Signal Name</th>
<th>Latitude °</th>
<th>Longitude °</th>
<th>Datum</th>
<th>Method of Location</th>
<th>Date of Location</th>
<th>Charts Affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conimicut Light</td>
<td>Conimicut lighthouse, 1897</td>
<td>CON</td>
<td>41 43</td>
<td>71 20</td>
<td>1021.6</td>
<td>Triang.</td>
<td>7/19/56</td>
<td>353, 278</td>
</tr>
<tr>
<td>Bullock Point Light, 1956</td>
<td>BULL</td>
<td></td>
<td>41 44</td>
<td>71 21</td>
<td>1222.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by [Signature].

William F. Dean Chief of Party
During the photogrammetric office review some signals were transferred graphically to the worksheet for comparison. Appreciable discrepancies were noted at signals GAD (photo 54-W-1100) and POI (photo 54-W-1099D) (with Planetable Sheet E). It is believed these are due to misidentification; both are on buildings in areas where other similar buildings exist.

No field data was furnished for the TEM's at Nayatt Point.

Refer to the Notes to Reviewer T-10475 regarding boundaries in this area.

The following is furnished as Coast Pilot information:

The three marine railways at Bullock Point have capacities of 50 feet in length, 6 feet in draft and 25 tons. (photo 56-W-182)
## 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>Part</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>278</td>
<td>8-15-69</td>
<td>O. Chapman</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. 25</td>
<td>Added piling</td>
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<tr>
<td>353</td>
<td>8-16-70</td>
<td>H. Denley</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
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<tr>
<td>278</td>
<td>8-17-77</td>
<td>W. Chilton</td>
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<tr>
<td>357</td>
<td>6-18-77</td>
<td>W. Chilton</td>
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