**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-10187</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>East Greenwich</td>
</tr>
</tbody>
</table>

**CHIEF OF PARTY**

Ira R. Rubottom, Chief of Party
William F. Deane, Baltimore District Officer

**LIBRARY & ARCHIVES**

**DATE** 8 FEB 1969
Ph-163
Project No. (II): 654466
Quadrangle Name (IV):

Field Office (II): East Providence, R. I.
Photogrammetric Office (III): Baltimore, Md.

Instructions dated (II) (III):
(II) 9 April 1956
13 March 1957

Chief of Party: Ira R. Rubottom
Officer-in-Charge: W. F. Deane

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):
MAY 3 - 1960

Date reported to Nautical Chart Branch (IV):

Applied to Chart No. Date: Date registered (IV):

Publication Scale (IV):

Geographic Datum (III): N.A. 1927

Publication date (IV):
Vertical Datum (III): MHW

Elevations shown as (m) refer to mean high water
Elevations shown as (l) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): SPENCER, 1843

Lat.: 41° 40' 42.730" (1318.3 m) Long.: 71° 29' 40.777" (943.2 m)

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)
DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): Mathew A. Stewart
Leo F. Beugnet
Date: May - October 1956

Planetary contouring by (II):
Date:

Completion Surveys by (II): X SEE BELOW
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. B. Phillips
Date: 8/5/57

Projection and Grids checked by (IV): J. B. Phillips
Date: 8/5/57

Control plotted by (III): J. C. Cregan
Date: 8/27/57

Control checked by (III): D. M. Brant
Date: 9/5/57

Radial Plot or Stereoscopic: E. L. Rolle
Date: 9/30/57

Control extension by (III): Planimetry
Date:

Stereoscopic Instrument compilation (III):

COMPUTED E. L. WILLIAMS
Date: 11/11/58

Manuscript delineated by (III):
Date:

Photogrammetric Office Review by (III): J. W. Vonasek
Date: 2/17/59

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

*FIELD EDIT
LIMITED FIELD EDIT BY HYDROGRAPHIC SURVEY PARTY H-8313
DATE 1956

NO FIELD EDIT SHEET SUBMITTED
Camera (kind or source) (III): C&GS Camera "W", "W" focal length.

PHOTOGRAPHS (III)

<table>
<thead>
<tr>
<th>Number</th>
<th>Date</th>
<th>Time</th>
<th>Scale</th>
<th>Stage of Tide</th>
</tr>
</thead>
<tbody>
<tr>
<td>56-W-138 thru 140</td>
<td>5/1/56</td>
<td>0816</td>
<td>1:30,000</td>
<td>1.6' above MLW</td>
</tr>
</tbody>
</table>

Tide (III)
(from predicted tables)

- Ratio of
  Range
- Mean Range
- Spring Range

<table>
<thead>
<tr>
<th>Reference Station: Newport, R. I.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subordinate Station: East Greenwich</td>
</tr>
</tbody>
</table>

Washington Office Review by (IV): S. G. Blaken Baker

Final Drafting by (IV):

Drafting verified for reproduction by (IV):

Proof Edit by (IV):

Land Area (Sq. Statute Miles) (III): 13
Shoreline (More than 200 meters to opposite shore) (III): 4.5 miles
Shoreline (Less than 200 meters to opposite shore) (III): 1.5 miles
Control Leveling - Miles (II):

| Number of Triangulation Stations searched for (II): | 10 | Recovered: 9 | Identified: 3 |
| Number of BMs searched for (II): | 4 | Recovered: 4 | Identified: 1 |
| Number of Recoverable Photo Stations established (III): None |
| Number of Temporary Photo Hydro Stations established (III): See paragraph 38 |

Remarks:

All bench marks searched for are Tidal Bench Marks.
SUMMARY TO ACCOMPANY DESCRIPTIVE REPORTS
T-10489, T-10487, T-10486 and T-10489
Job PH-163

Job PH-163, comprised of thirty planimetric surveys, covers Narragansett Bay, Rhode Island-Massachusetts.

A complete field inspection preceded compilation. Limited field edit was accomplished in conjunction with contemporary hydrographic surveys H-8313 and 8395. The project was bridged by multiplex and compiled by Kelsh plotter.

Difficulties were encountered in smooth plotting H-8395. Refer to the addendum to this Summary.

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. Rebridging 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).
FIELD INSPECTION REPORT
Project 25120
Map T-10487

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:
Ira R. Rubottom
Chief of Party

FIELD INSPECTION PHOTOGRAPHS
SEW 137, 140, 162, 164

S4W 1021, 1022
COMPILATION REPORT
Project Ph-163
T-10487

The 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
U.S. G.S. East Greenwich quadrangle for town and county boundaries.
Map of Naval Air Station Quonset Point, R. I., 1955.
Sheet Sheet H-8313 for comparison.
Final name standard dated 5 March 1957.

34. CONTOURS AND DRAINAGE
Drainage is complete.
Contours are inapplicable.

35. SHORELINE AND ALONGSHORE FEATURES
Field inspection of the shoreline was adequate.
No low water or shoal lines are delineated.

36. OFFSHORE DETAILS
Refer to paragraph 8 of the field inspection report which is part of the report for Survey T-10480. Haul Rock could not be delineated.

37. LANDMARKS AND AIDS
Form 567 was submitted for three landmarks to be charted.

38. CONTROL FOR FUTURE SURVEYS
A comparison of the photogrammetric positions of only the identified photo-hydro stations was made with the positions shown on a copy of graphic control sheet No. Ph-1-0-56. A report of the results of this comparison was forwarded to the Washington office. (see attached copy) However, no list of the photo-hydro signals is given in this report because the hydrography has been completed and the work done in this office was primarily a spot check of the field work.
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 topographic stations were located.

39. **JUNCTIONS**

Junctions have been made with map manuscripts. T-10480 to the north, T-10488 to the east, and T-10494 to the south. There is no contemporary survey to the west.

40. **HORIZONTAL AND VERTICAL ACCURACY**

No comment.

41. **BOUNDARIES**

The limits of the Naval Reservation near the railroad were transferred from the map of the Naval Air Station Quonset Point holding to identified details. The East Greenwich-Warwick boundary was transferred from the U.S.G.S. quadrangle.

42. - 45. Inapplicable.

46. **COMPARISON WITH EXISTING MAPS**

- U.S.G.S. 7½ minute quadrangle East Greenwich, R. I., scale 1/4,000, edition of 1959.
- Bureau Survey No. T-5749 (1944) scale 1/20,000, date of issue July 1949.

47. **COMPARISON WITH NAUTICAL CHARTS**

Chart No. 278; scale 1/20,000; 10th Edition, November 1946; corrected to 8/9/54.

Items to be applied to nautical charts immediately: None.

Items to be carried forward: None.

Respectfully submitted
14 November 1958

E. L. Williams
Carto. (Photo.)

Approved and forwarded

William F. Deane,
CDR, O&GS
Baltimore District Officer
PHOTOGRAMMETRIC OFFICE REVIEW
T. 10487


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 ✓

ALONGSHORE AREAS
(Nautical Chart Data)

PHYSICAL FEATURES

CULTURAL FEATURES

BOUNDARIES
31. Boundary lines ✓ 32. Public land lines

MISCELLANEOUS

40. [Signatures]
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.C. BLANKENBAKER
Compiler

Supervisor

43. Remarks: NOV 1966
61. General Statement

These surveys provided shoreline -- applied to smooth sheet during verification -- for H-8313; and, T-10489 provided, in part, support for H-8395. Changes in photogrammetric survey details shown in red on the hydrographic surveys were applied to the subject maps during this review.

62. through 65. Comparisons

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

Comparisons 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 or in the compilation reports. These discrepancies can be disposed of only through a field check.

66. Adequacy of Results and Future Surveys

Refer to the Summary and Addendum to the Summary included in this Descriptive Report:

Reviewed by:

Approved by:  
S. G. Blankenbaker

Chief, Photogrammetric Branch

Chief, Photogrammetry Division  Chief, Marine Chart Division
GEOGRAPHIC NAMES
FINAL NAME SHEET
PH-163 (Rhode Island)
T-10487

Bartons Corner
Chepiwanoxet
Chepiwanoxet Island
Cowesett

Drum Rock Hill
East Greenwich
Folly Wharf
Frenchtown
Frenchtown Brook
Fry Brook
Goddard State Park

Greenwich Bay
Greenwich Cemetery
Greenwood Cemetery
Haul Rock
Hunt River

Hitch Up Rock
Kent County

Long Point
Maskerchugg River
Nichols Corner
North Kingston
North Kingstown
Potowomut Neck
Potowomut Pond
Potowomut River
Quidnessett
Quidnessett Cemetery
St. Patrick Cemetery
Sandhill Brook
Spencer Hill
The Mount
Warwick
Washington County

Approved by:
A. Joseph Wright
A. Joseph 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 Joseph W. Vonasek

<table>
<thead>
<tr>
<th>STATE</th>
<th>RHODE ISLAND</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARTING NAME</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>SPIRE</td>
<td>stone  ht=99(206)</td>
</tr>
<tr>
<td>COURTHOUSE</td>
<td>wooden ht=100(167)</td>
</tr>
<tr>
<td>CUBOLA</td>
<td>yellow brick ht=93(130)</td>
</tr>
</tbody>
</table>

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.
NOTES TO ACCOMPANY CRONAFLEX PRINT
OF SURVEY T-10187, PROJECT PH-163

The map manuscript was compared with the copy of graphic control sheet No. Ph-I-0-56, Projects 13870 and 25120, scale 1:10,000. The following is a list of photo-hydro stations, indicating how far and in what direction the photogrammetric position falls from the common point on the graphic control sheet.

Also listed are those photo-hydro stations that could not be identified. All other photo-hydro stations within the limits of this survey were verified within 0.5 mm and removed from the map manuscript.

<table>
<thead>
<tr>
<th>Station Name</th>
<th>Photogrammetric Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIM</td>
<td>0.7 mm NW</td>
</tr>
<tr>
<td>WAS</td>
<td>0.6 mm NW</td>
</tr>
<tr>
<td>NIP</td>
<td>0.7 mm SW</td>
</tr>
</tbody>
</table>

Stations not identified:

<table>
<thead>
<tr>
<th>LET</th>
<th>YES</th>
<th>KEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAT</td>
<td>CAB</td>
<td>RAG</td>
</tr>
<tr>
<td>ACE</td>
<td>HAT</td>
<td>QUO</td>
</tr>
<tr>
<td>ZOO</td>
<td>JOE</td>
<td></td>
</tr>
</tbody>
</table>

It is recommended that the photo-hydro stations plotted on the map manuscript be used in making the smooth sheets.

Respectfully submitted
10 November 1958

Approved and forwarded

E. L. Williams
Carto. (Photo.)

Henry P. Eichert
Super. Carto.
# 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>12.10</td>
<td>4/17/69</td>
<td>H. Quinley</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. 50 - Examined, 440 correction.</td>
</tr>
<tr>
<td>353</td>
<td>12-16-70</td>
<td>H. Notley</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
</tr>
<tr>
<td>276</td>
<td>12/17/71</td>
<td>R. Duncan</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No. #27</td>
</tr>
<tr>
<td>278</td>
<td>2-17-73</td>
<td>W. Chalfin</td>
<td>Full Part Before After Verification Review Inspection Signed Via Drawing No.</td>
</tr>
<tr>
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