U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey: TOPOGRAPHIC

Field No. 6908
Office No. a and b

LOCALITY
State: RHODE ISLAND
General locality: Narragansett Bay
Locality: East Passage

1943

CHIEF OF PARTY

LIBRARY & ARCHIVES

DATE: January 6, 1944
Applied to Ch. 1210, 1/26/44, G.R.

Partially to Ch. 236, 1/26/44, G.R.

To Ch. 353, 3/29/44, G.R.

Partially applied to Ch. 267, 7/13/44, F.D.

Complete in full to Chart 267, 9/2/44, 1.A.M.

Completely applied (after review) to Chart 236 - 10/19/44 - G.R.
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No..................
REGISTER NO. 6641 a and b

State.................... RHODE ISLAND
General locality........ Narragansett Bay
Locality................. East Passage
Scale 1: to 10,000 Date of survey July- August 1943
Vessel.................... Motor Vessel COWIE
Chief of party.......... Benjamin H. Rigg
Surveyed by.............. Arnold Friedlander
Inked by.................. William E. Page
Heights in feet above W.H.W. to ground to tops of trees
Contour, Approximate contour, Form line interval .... feet
Instructions dated ....March 15 and 28, 1943 ...........

Remarks: This sheet is for Graphical Control and revision.
DESCRIPTION REPORT TO ACCOMPANY SHEETS 5841a AND 5841b

INSTRUCTIONS: This survey was conducted in accordance with instructions dated March 18, 1943, and supplemented March 25, 1943 for project CS 304.

METHODS: These sheets are graphic control sheets and no attempt was made to make a completed topographic survey of the area. Standard methods of topographic survey were employed. All topographic signals, aids to navigation, and rafts along the torpedo range, and certain of the offshore features such as points on dikes, were located by three or more intersecting cuts. Offshore features and shoreline were located by rod shots. The shoreline was run in places where noticeable changes had occurred, as well as at other setups where time permitted.

REVISIONS: Changes in the shoreline of Dyer Island, Carr Point, and the southeast end of Prudencio Island were noted, and the shoreline was run in.

LANDMARKS FOR CHARTS: Landmarks for charts in this area have been submitted on form 567.

RANGES: The azimuth of the Melville Range for the channel to the east of Dyer Island was determined by a plane table position 76 meters northwest of station GOULD ISLAND 1845. Its value is 42° 41' true. The position of MELVILLE RANGE FRONT and REAR LIGHTS as located by plane table cuts do not agree with the positions as given by triangulation. It is believed that these range objects have been rebuilt and moved. The front range pole is now a black pole with a white slat triangle at the base, and the rear range object is now a black pole with an inverted white triangle at the top. The new positions of these objects have been submitted on form 567.

MAGNETIC MERIDIAN: The magnetic variation as determined at station PINE HILL 1843 on July 31, 1943 at 1000 was 15° 15' West.

The magnetic variation as determined at station RAFOSO 1932, on August 3, 1943, at 1800, was 17° 14' West. The discrepancy between the values at these two stations may be a result of local attraction caused by the many buildings of the Naval Torpedo Station surrounding station RAFOSO.

The discrepancy between the value of 15° 15' West at PINE HILL 1843, and the charted value of 14° 30' West may in part be the index error of the declinometer (number 166). No information at the time was available on the magnetic variation at any of the stations, therefore the index error of the declinometer could not be determined.

TORPEDO RANGE: This range extends north of the firing pier at the north end of Gould Island and has been established to test torpedoes. Rafts have been anchored at intervals along the range from which the torpedoes are timed. The first raft is 200 meters wide (East to west) and 20 meters long (north and south), all the others are 10 meters each way.

Respectfully submitted,

Arnold Friedlander
Ens, USCGS

Approved by

Benjamin H. Frye
Lt. Comdr., USCGS
Chief of Party
FEATURES OUTSIDE HIGHWATER LINE:

CON .................. Radar mast CONFIDENTIAL
COR .................. Southwest corner of dock
FIT .................. Flagpole top of building at end of
torpedo firing pier.
PIP .................. Light mast, N'ly of two on dock
SOW .................. Southeast corner of dock.
TOT .................. South edge of sign on face of dock
WAY .................. HALF WAY ROCK BEACON

SAM .................. Center of rock ledge exposed at high water
RIG .................. High point boulder center of small rocky island

The mile trial course markers on
Canonicut I.d. apparently have
abandoned and should therefore
be deleted from the nautical chart.

Halfway Rock Buoys are occupied
and its position is undoubtedly
correct. The position shown on
the chart which does not agree
with the position on the topographic
chart is in error.

Arnold Friedlender

Int. (AG) USC & GS

Aug. 31, 1944
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.

<table>
<thead>
<tr>
<th>NAME AND DESCRIPTION</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>MELVILLE RANGE FRONT LIGHT</td>
<td>41 34</td>
<td>1621</td>
<td>71 17</td>
<td>256</td>
<td>NA 1927 Topogr.</td>
<td>1943</td>
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<tr>
<td>MELVILLE RANGE REAR LIGHT</td>
<td>41 36</td>
<td>124</td>
<td>71 17</td>
<td>114</td>
<td>August</td>
<td>1210</td>
</tr>
</tbody>
</table>

Azimuth of range by plane table - 42° - 41°
Azimuth of range from 1943 Light List - 42°

Letter 680 (43) includes these landmarks, which are duplicates.

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." 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.
TO BE CHARTED
TO BE DELETED

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks, be charted on (deleted from) the charts indicated.
The positions given have been checked after listing.

<table>
<thead>
<tr>
<th>General Locality</th>
<th>Name and Description</th>
<th>Position</th>
<th>Method of Location</th>
<th>Date of Location</th>
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</thead>
<tbody>
<tr>
<td>Narragansett Bay</td>
<td>SILO (red) (Θ Fin.)</td>
<td>41 34 684H71 17 236</td>
<td>NA 1943 Topogr. August</td>
<td>x</td>
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<tr>
<td>East Passage, R.I.</td>
<td>CHIMNEY (Northerly of TWO) (Θ N)</td>
<td>41 33 629H71 18 430</td>
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<tr>
<td></td>
<td>SILO (white) (Θ Sil)</td>
<td>41 34 163H71 17 644</td>
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<td></td>
<td>TANK, ELEVATED (Θ Pat)</td>
<td>41 356 387H71 21 1313</td>
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<tr>
<td></td>
<td>(Θ Cap) (3AP)</td>
<td>41 36 355H71 20 62</td>
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</tbody>
</table>

Same as Letter 680 (43)

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." 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.
<table>
<thead>
<tr>
<th>Remarks</th>
<th>Decisions</th>
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<td>Aquidneck I.</td>
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<td>Prudence I.</td>
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<td>Dyer I.</td>
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<td>Gould I.</td>
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<td>Conanicut I.</td>
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<td>East Passage</td>
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<td>Hope I.</td>
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Names underlined in red approved by L. Heck on 11/11/44.
MEMORANDUM
IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H
No. T 6908
received
registered
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

<table>
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<th>ROUTE</th>
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RETURN TO

82  R. W. Knox

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DIVISION OF CHARTS
REVIEW SECTION - SURVEYS' BRANCH

REVIEW OF TOPOGRAPHIC SURVEY REGISTRY NO. 6908a&b
Rhode Island, Narragansett Bay, East Passage
Surveyed July - August 1943, Scale 1:10,000
Instructions dated March 15-26, 1943

Plane Table Survey Aluminum Mounted

Chief of Party - B. H. Rigg
Surveyed by - A. Friedlander
Inked by - W. B. Page
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston, July 17, 1944

1. **Adjoining Surveys**

   There are no contemporary adjoining surveys.

2. **Prior Surveys**

   T- 897 (1861) 1:10,000
   T- 912 (1868) 1:10,000
   T-1054 (1868) 1:10,000
   T-1119 (1869) 1:10,000
   T-1162 (1870) 1:10,000

   Only segments of shoreline differing from the charted
topography were located on the present survey. Natural
changes of 30 - 40 meters have occurred on the south
end of Dyer Island and in Lat. 41°34'.3", Long. 71°17'.5'.
Other changes are largely man-made improvements. The
present survey position of the small island in Lat.
41°36'.47", Long. 71°21'.7' charted from T-912 (1868)
differs slightly with the position from that survey.
Within the common area the changes shown on the present
survey should supersede these prior surveys.

3. **Comparison with Chart 236 (latest print date 3-24-44)**

   The present survey has been only partially applied to
the charted topography which originates largely with
the previously discussed surveys. The azimuths of the
ranges used in the Naval Trial Course on Conanicut
Island differ by approximately 4° and fail to give a
measured mile except between the markers themselves.
The charted positions of the rear range markers are
not in good agreement with the computed positions.
4. Condition of Survey

Satisfactory except that it is not complete with respect to certain desirable information regarding the nature of the numerous ranges on Conanicut Id. The fact that the markers of the Naval Trial Course were not used as hydrographic signals might indicate that the course was no longer in use but no information regarding the course was given in the descriptive report. The present light on Conanicut Point has not been located by triangulation nor was it located on the present survey.

5. Compliance with Instructions for the Project

Satisfactory.

6. Additional Field Work Recommended

None.

7. Superseded Surveys

T-897 (1861) in part
T-912 (1868) 
T-1054 (1868) 
T-1119 (1869) 
T-1162 (1870) 

Examined and approved:

Robert Whittem
Chief, Surveys Branch

J.S. Gordin
Chief, Division of Charts

Earl O. Johansen
Chief, Section of Hydrography

Chief, Division of Coastal Surveys