

10480

Diag. Cht. No. 1210-2.

FORM C&GS-504	
U.S. DEPARTMENT OF COMMERCE ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Planimetric
Field No.	Ph-163
Office No.	T-10480
LOCALITY	
State	Rhode Island
General locality	Narragansett Bay
Locality	Apponaug
1956	
CHIEF OF PARTY	
I.R. Rubottom, Chief of Party	
W.E. Randall, Balto. District Officer	
LIBRARY & ARCHIVES	
DATE	February 11, 1968

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DESCRIPTIVE REPORT - DATA RECORD

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Ph-163

Project No. (II): ~~75720~~

Quadrangle Name (IV):

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

Chief of Party: Ira R. Rubottom

Photogrammetric Office (III): Baltimore, Md.

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

Scale Factor (III): 1.000

SEP 21 1960 (Pantograph ratio 3/5)

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

~~Mean Sea Level~~

Elevations shown as (25) refer to mean high water  
Elevations shown as (5) refer to sounding datum  
i.e., mean low water or mean lower low water

Reference Station (III): CHIP, 1913

Lat.: 41° 40' 24.061" (742.3 m)

Long.: 71° 26' 31.877" (737.4 m)

Adjusted  
~~Charted~~

Plane Coordinates (IV):

State:

Zone:

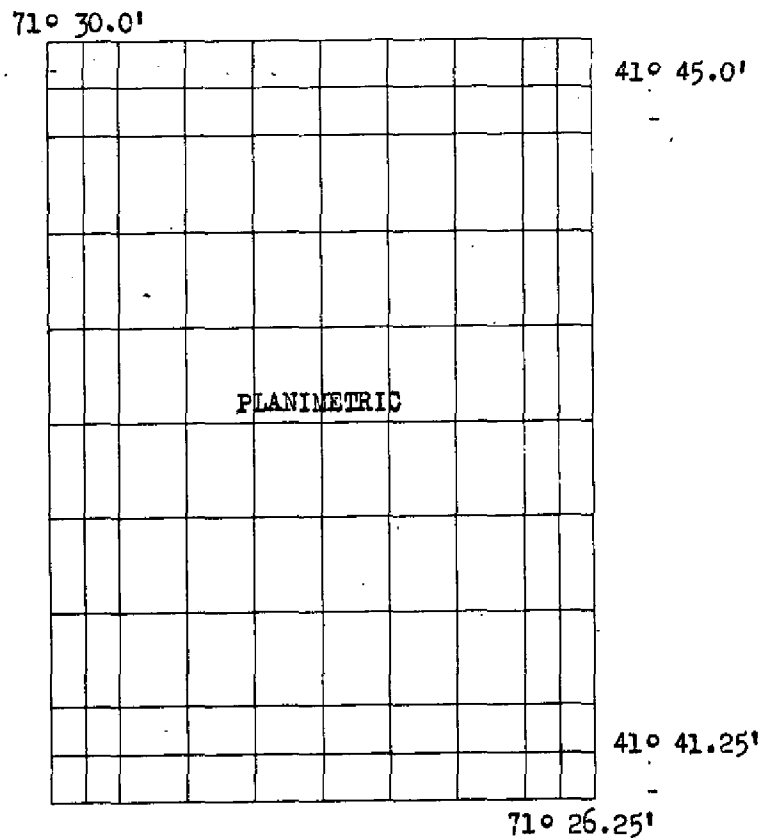
Y=

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



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

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

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

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): B. Kurs

Date: 9/2/57

~~Stereoscopic~~ Stereoscopic E. L. Rolle & D. M. Brant  
Control extension by (III):

Date: 9/30/57

Planimetry J. C. Richter  
Stereoscopic Instrument compilation (III):

Date: 8/15/58

~~Control~~

Date: ---

Manuscript delineated by (III): R. E. Lindauer  
(scribed)

Date: 2/11/60

Photogrammetric Office Review by (III): E. L. Rolle

Date: 1/20/60

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

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Date: ----

FIELD EDIT

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

NOTE: NO DISCREPANCY PRINT SUBMITTED



# DESCRIPTIVE REPORT - DATA RECORD

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

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

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Number	Date	Time	Scale	Stage of Tide
56-W-136 thru 138	5/1/56	0815	1:30,000	No tide
56-W-164 thru 166	"	0832	"	1.8' above MLW

Tide (III)  
(from predicted tables)

Reference Station: Newport, R. I.  
Subordinate Station: East Greenwich, R. I.  
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
-	3.5	4.4
1.25	4.4	5.5

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

Date: Nov. 1966

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

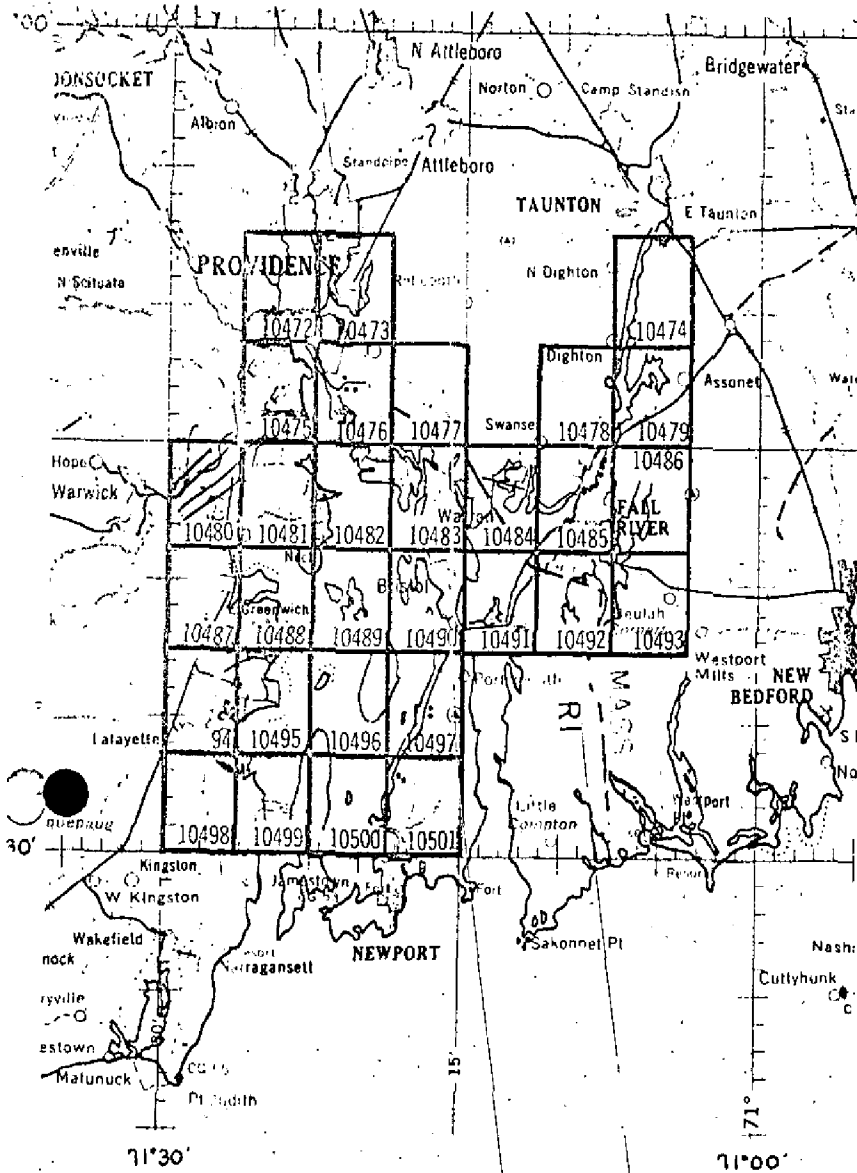
Date:

Land Area (Sq. Statute Miles) (III): 14 sq. mi.  
Shoreline (More than 200 meters to opposite shore) (III): 2 miles  
Shoreline (Less than 200 meters to opposite shore) (III): 0.5 mile  
Control Leveling - Miles (II):  
Number of Triangulation Stations searched for (II): 4 Recovered: 4 Identified: 3  
Number of BMs searched for (II): Recovered:  
Number of Recoverable Photo Stations established (III): None  
Number of Temporary Photo Hydro Stations established (III): None

Remarks:

# PLANIMETRIC MAPPING PROJECT PH - 163

Narragansett Bay, Mass. - Rhode Island



OFFICIAL MILEAGE FOR COST ACCOUNT		
SHEET NO.	Lin. Mi. SHORELINE	AREA SQ. MI
10472	10	12
10473	7	13
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	2	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



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SUMMARY TO ACCOMPANY DESCRIPTIVE REPORTS  
T-10489, T-10487, T-10488 and T-10489  
80  
Job PH-163

Job PH-163, comprised of thirty planimetric surveys, covers Narragansett, <sup>Bay</sup> 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



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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



FIELD INSPECTION REPORT  
PROJECT 25120

Maps T-10480 through T-10483  
and T-10487 through T-10490

2. AREAL FIELD INSPECTION

This area is that covering part of the upper reaches of Narragansett Bay and includes Greenwich Bay, Bristol Harbor, Warren River and the entrance to Mount Hope Bay.

The area is densely populated, particularly along the shore, and is predominantly industrial. Small fishing industries are found in the towns of East Greenwich and Bristol. Warren River is used chiefly by pleasure craft.

The area is adequately served by a system of railroads, highways, air transport and by water. Transportation to Prudence Island can be obtained by regularly scheduled ferry from the town of Bristol.

The northern portion of Prudence Island is unsettled; the southern portion is occupied by the U. S. Navy and by summer residents with a very few year round residents. Hog Island is used as a summer resort by residents of the nearby towns. Patience Island is privately owned, is not easily accessible and has not become popular for summer use as yet. Consequently, it is relatively uninhabited.

Single lens photographs taken in May 1956 were adequate. Ratio prints at 1:10000 scale were used for all field inspection operations. No serious photograph interpretation difficulties were encountered. Due to over-lapping of different phases of field work it was not always practical to use the center of each photograph to the best advantage.

Field inspection is believed to be complete and adequate. No items were deliberately left for completion during field edit.

Field inspection was accomplished on the following field photographs:

T-10480

56-W-135 thru -138  
56-W-164 " -166  
and 54-W-1023

T-10481

56-W-164 thru -166  
56-W-183 " -185  
54-W-1048, -1099B, -1099C  
-1099D, -1100 and -1101

T-10482

56-W-182 thru -184  
56-W-208 and -209  
54-W-1082 thru -1084  
54-W-1099D, -1100  
and -1135

SEE NOTE  
NEXT PAGE



NOTE: PHOTOGRAPHS CIRCLED IN  
RED COULD NOT BE FOUND  
AT THE TIME OF FINAL  
REVIEW. \* (SEE NOTE)

-8- -11-

<u>T-10483</u>	<u>T-10487</u>	<u>T-10488</u>
56-W-222 thru -224	56-W-137 thru -140	56-W-162 thru -164
56-W-245 and -246	56-W-162 " -164	56-W-184 and -185
54-W-1142 thru -1144	54-W-1021 and -1022	54-W-1022, -1048, -1049, -1051, -1052, -1101 and -1102
<u>T-10489</u>	<u>T-10490</u>	
56-W-184 and -185	56-W-225 thru -227	
56-W-203 thru -205	56-W-242 " -244	
56-W-227	54-W-1144 and -1145	
54-W-1100 and -1101	54-W-1194 and -1197	

### 3. HORIZONTAL CONTROL

The following third-order triangulation stations were established during field inspection:

<u>T-10481</u>	<u>T-10488</u>
GASPE 2	WARWICK LIGHT
<u>T-10482</u>	<u>T-10490</u>
CONIMICUT 2	LAND
BULLOCKS POINT LIGHT	CASTLE ISLAND LIGHT

T-10483  
RUM 2  
WARREN STACK  
ALLEN ROCK LIGHT  
BARRINGTON BEACH TOWER

All Bureau stations plotted on the project diagram were searched for and reported on Form 526.

Stations reported lost are as follows:

T-10489  
(none)

T-10481  
Green, 1913  
Stevens, 1863  
Water Tank, Gallery Top, 1913  
Water Tank, Finial, 1913  
Gaspe(USE), 1913  
C 2, USGS, 1934

T-10482  
Black Water Tank, Windmill on Top, 1913  
Pile, 1913  
Conimicut(USE), 1913  
Yellow House, West Chimney, 1863  
Bullocks Neck 3, 1897  
Bullocks Point Lighthouse, 1897  
Shed, White Top, 1913  
Ballou Flagstaff, 1913

\* NOTE: THE NOS. OF PHOTOS  
USED IN PROJECT URBAN AREA  
LIMITS INSPECTION ARE LISTED  
IN THE PROJECT COMPLETION  
REPORT.



T-10483

Gray Water Tank, Center Pole, 1913  
Rum, 1913  
Warren Beacon, 1863

T-10487

Long, 1913

T-10488

Pojac 2, 1913  
Spindle Rock Beacon, 1912  
White House, South Gable, 1913  
Wall, 1913  
Sandy Point, 1863

T-10489

Potters Cove, Windmill, 1913  
Patience Island Water Tower, 1912  
North Point, House Chimney, 1912  
Windmill, 1913

T-10490

Bristol, White Methodist Church, spire, 1843  
Castle Island Beacon, 1843  
Mussel Bed Shoals Lighthouse, 1897  
Colt, 1913

Horizontal control searched for, recovered and identified by the field party consisted entirely of that plotted on the project diagram and new supplemental control established during the course of field work. The accuracy of U. S. Geological Survey traverse stations as plotted on the project diagram is unknown as no information regarding this control was furnished the field party other than the positions and descriptions.

4. VERTICAL CONTROL

This phase limited to the recovery of existing tidal bench marks.

5. CONTOURS AND DRAINAGE

Contours inapplicable.

Drainage is chiefly through small perennial streams from swamp into the larger ponds and bays. Marsh and swamp limits have been indicated except for some small swamp areas which were merely labeled as the limits are self-evident.

Perennial streams, on the whole, are self-evident on the photographs. All drainage was examined stereoscopically and has been classified, clarified and/or delineated where deemed necessary for aid in compilation.



## 6. WOODLAND COVER

Woodland cover was classified in accordance with reference 5433, Topographic Manual, Part II, and adequately covered by field inspection notes on the photographs.

## 7. SHORELINE AND ALONGSHORE FEATURES

Shoreline inspection was accomplished from a skiff run close to shore. It is predominantly fast except for a few small areas in the smaller bays and rivers.

The MHWL has been indicated on the photographs in accordance with Fig. 5.22, Topographic Manual, Part II. The MHWL along the sand beaches was verified to be as photographed in May 1956.

An approximate low water line was indicated where practicable. It is usually very close to and parallels the MHWL. It was not practicable to accurately determine the MLWL.

The foreshore is rocky except along the few relatively small beaches scattered throughout the area. These beaches are used for bathing during the summer months. The foreshore is adequately covered by field inspection notes on the photographs.

Bluffs have been indicated where they are of landmark value.

The shore ends of all submerged cables were identified on the photographs. There appears to be a discrepancy in the charted position of the submerged cable crossing from Hayatt Point to Conimicut Point, Chart 353. The actual location of the cable is as shown on photograph 56-W-208 and was obtained from the actual location plans of the Narragansett Electric Co., the owners and installers of the cable.

A submerged cable crossing Old Warwick Cove, Chart 353, could not be found nor could any information as to its existence be obtained from local residents or authorities. It is doubtful if this cable is still in existence.

All shoreline structures were inspected and are adequately covered by field inspection notes.

### 8. OFFSHORE FEATURES

Field inspection of rocks was not as complete and detailed as would have been the case had hydrography not been in progress in the entire area at the time of shoreline inspection. All rocks which were visible at the time of shoreline inspection were visited and their elevations above water determined.

Several rocks which are charted could not be found during shoreline inspection. This is attributed to the stage of the tide at the time and does not indicate that no rocks exist as charted. It was not practicable to visit the entire area at low water, otherwise all charted rocks probably would have been found or their existence definitely disproved. See the boat sheets of the area for further information on rocks.

### 9. LANDMARKS AND AIDS

All landmarks for nautical charts, aeronautical charts and aids to navigation were reported on Form 567.

All fixed aids to navigation of permanent-type construction which had been rebuilt since last located by triangulation were again located by third-order triangulation methods. These were: BULLOCKS POINT LIGHT, ALLEN ROCK LIGHT, WARWICK LIGHT and CASTLE ISLAND LIGHT. Rumstick Ledge South, Center and North Daybeacons were not on station during field inspection. Although listed as privately maintained aids in "Complete List of Lights and Other Marine Aids, Atlantic Coast of the United States" they are not charted.

BRISTOL HARBOR LIGHT is not of permanent type construction and was located by plane table methods on graphic control sheet Ph-1-F-56 and identified on the field photographs for photogrammetric location.

### 10. BOUNDARIES, MONUMENTS AND LINES

Boundaries effecting these maps are as follows:

1. Massachusetts-Rhode Island State Boundary, Map T-10483
2. Providence County, Rhode Island, Map T-10480 and T-10482
3. Kent County, Rhode Island, Maps T-10480, T-10481, T-10487 and T-10488
4. Washington County, Rhode Island, Map T-10488
5. Bristol County, Massachusetts, Map T-10483
6. Bristol County, Rhode Island, Maps T-10482, T-10483, T-10489 and T-10490
7. Newport County, Rhode Island, Maps T-10488, T-10489 and T-10490
8. City of Cranston, Rhode Island, Maps T-10480 and T-10482
9. Goddard State Park, Rhode Island, Maps T-10487 and T-10488

All boundaries in the foregoing list were verified by local officials to be as mapped on current editions of topographic quadrangle maps as published by the U. S. Geological Survey.

All boundary monuments reported to be in existence at the time of field inspection were searched and identified if recovered.

Short sections of the boundaries were inked on the field photographs in instances where numerous monuments were recovered and identified. Other boundaries were inked in their entirety except the Massachusetts-Rhode Island State Boundary. All existing monuments on this boundary were recovered and identified for location by photogrammetric methods although many of them are triangulation stations of this bureau.

The following are incorporated towns or villages without limits of their own lying wholly within the limits of a town of the same or a different name. The town in each case being the first minor sub-division of the county:

1. Warwick
2. West Warwick
3. East Greenwich
4. East Providence
5. Barrington
6. Warren
7. Bristol

All of the preceding are in Rhode Island.

#### 11. OTHER CONTROL

Hydrographic control was furnished to the East Coast Field Party for the entire area by plane table graphic and photogrammetric methods. The following is a list of hydrographic control sheet numbers and the method used for each individual sheet:

Ph-1-C-56 Graphic  
 Ph-1-D N/2-56 Photogrammetric  
 Ph-1-D S/2-56 Graphic  
 Ph-1-E-56 Graphic  
 Ph-1-F-56 Graphic  
 Ph-1-G-56 Graphic  
 Ph-1-H-56 Graphic and Photogrammetric  
 Ph-1-L-56 Graphic

Two recoverable topographic stations were established. They are MAG and PIT and were located graphically.

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## 12. OTHER INTERIOR FEATURES

All roads were classified in accordance with reference 5441, Topographic Manual, Part II and Project Instructions.

All buildings were classified in accordance with reference 5446, Topographic Manual, Part II and Project Instructions.

State Airport in Map T-10461 is the only airport in the area. It has adequate facilities for the larger commercial planes and is used by all commercial airlines serving the area.

Clearances of all bridges and overhead cables crossing navigable waters were measured during field inspection. These clearances as computed by the field party are as tabulated on the following pages.

## 13. GEOGRAPHIC NAMES

A complete investigation of geographic names was not made. Discrepancies known to exist were indicated on prepared name sheets furnished the field party. All information needed to resolve these discrepancies was placed directly upon the prepared sheets and no formal report was prepared.

## 14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Triangulation data, Project 25120, forwarded to Washington 30 November 1956 in Pkg. No. 57-019 (Original copies)

Triangulation data, Project 25120, forwarded to Washington 30 November 1956 in Pkg. No. 57-020 (Duplicate copies)

Graphic Control Sheets, Project 25120 (13870), forwarded to Washington 3 December 1956 in Pkg. No. 57-023

Photo-Hydro Control Data, Project 25120 (13870), forwarded to Washington 3 December 1956 in Pkg. No. 57-024

Forms 567 for Landmarks and Aids to Navigation for Nautical and Aeronautical Charts to be forwarded at a later date.

One map, City of Cranston, Rhode Island.

One map, Bristol County, Rhode Island.

Approved:

*Ira R. Rnbottom*  
for  
Ira R. Rnbottom  
Chief of Party

Submitted:

*Leo F. Beugnet*  
Leo F. Beugnet  
Cartographic Survey Aid



# TABULATION OF BRIDGE AND CABLE CLEARANCES

Waterway	Name or Location	Type	BRIDGE CLEARANCES		Map No.
			Measured	Brige Book	
			Horiz. Vert.	Horiz. Vert.	
Apponaug River	WYNH&H RR	F	24.5*	31.67	T-10480
Barrington River	State of R.I.	F	59.5	56.5	T-10483
Barrington River	WYNH&H RR	Tr	32.5	32.4 16.0	T-10483
Warren River	State of R.I.	F	66.0	66	T-10483
Warren River	WYNH&H RR	Tr	19.5	19.5	T-10483
Mount Hope Bay, R.I.	Mount Hope Bridge Co.	F	1156	1156	T-10490

\* Opening is restricted by piling.

\*\* Measured at point of greatest horizontal clearance.

Waterway	Latitude	Longitude	Clearance	Map No.
Apponaug River	41 41.8	71 27.2	31.2	T-10480
Barrington River	41 44.2	71 17.8	15.7	T-10483
Barrington River	41 44.2	71 17.8	18.2	T-10483
Barrington River	41 44.2	71 17.8	9.4	T-10483
Warren River	41 44.2	71 17.3	12.3	T-10483
Warren River	41 44.2	71 17.3	35.0	T-10483
Warren River	41 44.2	71 17.3	21.5	T-10483
Belcher Cove	41 44.1	71 16.8	23.2	T-10483
Belcher Cove	41 44.0	71 16.8	28.5	T-10483

Cable clearances listed beginning with cable nearest the mouth of the waterway and then proceeding upstream.



COMPILATION REPORT T-10480  
Project Ph-163

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.

The double transmission line shown on this manuscript was delineated using 1954 photography.

32. CONTROL

Horizontal control was adequate.  
Vertical control is inapplicable.

33. SUPPLEMENTAL DATA

Planetable Sheet Ph 1-G-56 (comparison).  
Map Of City Of Cranston, R. I., 1956 (comparison).

34. CONTOURS AND DRAINAGE

Contours are inapplicable.  
Drainage is complete.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection was supplemented with office identified delineation along the Pawtuxet River.

No low-water or shoal lines are shown.

36. OFFSHORE DETAILS

Refer to paragraph 8 of the Field Report.

37. LANDMARKS AND AIDS

Submitted on Form 567.

38. CONTROL FOR FUTURE SURVEYS

Seven photo-hydro stations fall within the limits of this manuscript and are located on planetable Sheet Ph-1-G-56. These stations were favorably verified with the Kelsh plotter. 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

To the east with T-10481.  
To the south with T-10487.  
To the north, no contemporary survey.  
To the west, no contemporary survey.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41. BOUNDARIES

The boundary line between Providence County and Kent County was delineated using information from Map Of City Of Cranston, 1956 and U.S.G.S. map of E. Greenwich, R. I., 1957. There is a discrepancy between these two maps and field inspection shown on photograph 56-W-136.

The boundary for Rhode Island State Institutions delineated from field inspection on photograph 56-W-136, disagrees with boundary shown on U.S.G.S. map of E. Greenwich, R. I., 1957.

42 through 45

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

U.S.G.S. 7½ minute series of East Greenwich, R. I., scale 1:31680, edition of 1944.

U.S.G.S. 7½ minute series of East Greenwich, R. I., scale 1:24,000, 1957.

T-sheet No. 5749, scale 1:20,000; issued July 1949.

47. COMPARISON WITH NAUTICAL CHARTS

C&GS Chart No. 353, scale 1:40,000; 19th edition 10 March 1958, revised 29 June 1959.



USC&GS Chart No. 278, scale 1:20,000; 10th edition 11 November 1946, corrected to 17 January 1959.

Items to be applied to nautical charts immediately: None.

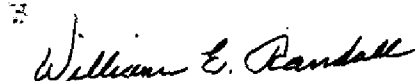
Items to be carried forward: None.

Respectfully submitted  
20 January 1960



Edward L. Rolle  
Carto. (Photo.)

Approved and forwarded



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

# PHOTOGRAMMETRIC OFFICE REVIEW

T-10480

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

4a. Classification label ☐

## 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 along-shore 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. Edward A. Rolfe Joseph Steinberg  
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.G. BLANKENBAKER Supervisor  
Compiler

43. Remarks:

Nov, 1966

- 23 -

REVIEW REPORT  
T-104<sup>80</sup>~~89~~, T-10487, T-10488 and T-10489  
November 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  
S. G. Blankenbaker

Charles L. Hauer  
Chief, Photogrammetric Branch

J. Ralph Sobieralski  
Chief, Photogrammetry Division

John C. Boyer 2/13/68  
Chief, Marine Chart Division

1-9-68

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Rhode Island)

T-10480

✓Apponaug

✓Apponaug Cove

✓Arnold Neck

✓Bald Hill

✓Cedar Tree Point

✓Cranston

✓East Natick

✓Greenwood

✓Gorton Pond

✓Hardig Brook

✓Hillsgrove

✓Howard

✓Meshanticut Brook

✓Natick

*Natick Pond - J.F.*

✓Nausauket

✓Oaklawn

✓Pawtuxet River

✓Pontiac

✓Slate Hill

✓Three Ponds Brook

✓Warwick

✓Westcott

✓West Warwick

*Theodore Francis  
Greene Airport - J.F.*

Approved by:

*A. Joseph Wraight*

Chief Geographer  
A. Joseph Wraight

Prepared by:

*Frank W. Pickett*

Cartographic Technician  
Frank W. Pickett



## NONFLOWING/KIDS/OR LANDMARKS FOR CHARTS

TO BE CHARTED  
XPOBEXNXXBXX  
XPOBEXNXXBXX

**STRIKE OUT TWO**

Morgan City, La. 5 Feb. 1957

I recommend that the following objects which have ~~(14464/14465)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(14464/14465)~~ the charts indicated.

The positions given have been checked after listing by

/s/ I. R. Rubottom

Chief of Party.

[illegible]

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. Revisions shall show both the old and new positions. 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.

\* TABULATE SECONDS AND METERS



## RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-10480

## 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]