

10489

ORIGINAL

Diag. Cht. No. 1210-2.

Form 504	
U. S. DEPARTMENT OF COMMERCE	
COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Planimetric
Field No. Ph-163	Office No. T-10489
LOCALITY	
State	Rhode Island
General locality	Narragansett Bay
Locality	Patience Island
<del>1956</del> 1956	
CHIEF OF PARTY	
Ira R. Rubottom, Chief of Party	
William F. Deane, Baltimore District Office	
LIBRARY & ARCHIVES	
DATE	Feb. 26, 1968

USCOMM-DC 5087

10489

DESCRIPTIVE REPORT - DATA RECORD

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T- 10489

Ph-163

Project No. (II): *251/26*      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 F. Deane**

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): **10,000**

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

Scale Factor (III): **1.000**

**MAY 3 - 1960**

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): **NA 1927**

Vertical Datum (III): **MHW**

~~MEAN LOW WATER OR MEAN LOWER LOW WATER~~

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): **PATIENCE, 1843**

Lat.: **41° 39' 32.929"** **1015.9 m**      Long.: **71° 21' 24.669"** **570.8 m**      Adjusted  
( **835.1 m** )      ( **817.4 m** )      ~~UNADJUSTED~~

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.

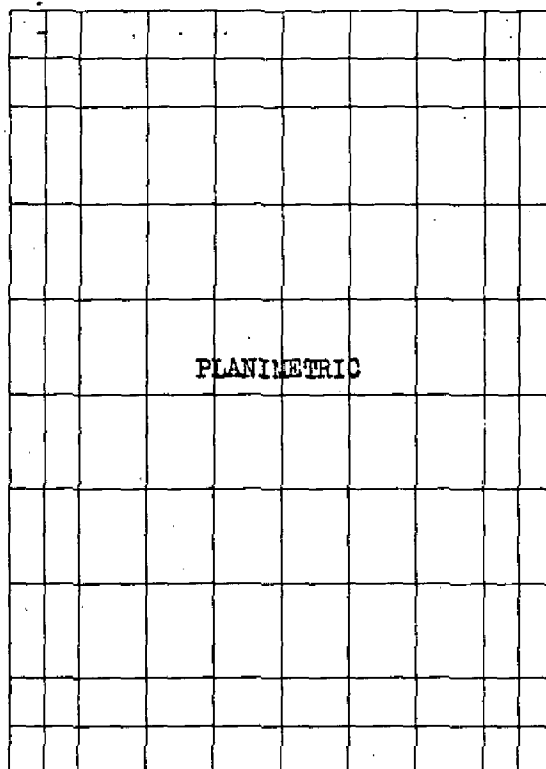
When entering names of personnel on this record give the surname and initials, not initials only.

DESCRIPTIVE REPORT - DATA RECORD

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

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71° 22.5'



41° 41.25'

41° 37.5'

71° 18.75'

Areas contoured by various personnel  
(Show name within area)  
(II) (III)

DESCRIPTIVE REPORT - DATA RECORD

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Field Inspection by (II): **Martin C. Moody**  
**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): 1956 date of photography  
supplemented by field inspection.

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

Date: 3/15/57

Projection and Grids checked by (IV): **H. D. W.**

Date: 3/15/57

Control plotted by (III): **J. C. Richter**

Date: 8/1/57

Control checked by (III): **J. C. Cregan**

Date: 8/22/57

~~Radio Plotter~~ Stereoscopic  
Control extension by (III):

**E. L. Rolle**

Date: 10/18/57

Stereoscopic Instrument compilation (III):

Planimetry **B. Kurs**

Date: 2/27/58

Contours ---

Date: ---

Manuscript delineated by (III):  
(scribed)

**R. J. Ryan**

Date: 6/23/59

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

Date: 1/8/59

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

Date:

FIELD EDIT -

LIMITED FIELD EDIT BY HYDROGRAPHIC  
SURVEY H-8313 & H-8395

DATE: 1956

# DESCRIPTIVE REPORT - DATA RECORD

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

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Number	Date	PHOTOGRAPHS (III) Time (EST)	Scale	Stage of Tide
56-W-203 thru 205	5/1/56	0900	1:30,000	1.9 ft above MLW

Tide (III)  
(From predicted tables)

Reference Station: Newport, R. I.  
Subordinate Station: Prudence Island, Sandy Point  
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
-	3.5	4.4
	3.9	4.9

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): 3

Shoreline (More than 200 meters to opposite shore) (III): 14 miles

Shoreline (Less than 200 meters to opposite shore) (III): 3 miles

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 11 Recovered: 7 Identified: 4

Number of BMs searched for (II): Recovered: Identified:

Number of Recoverable Photo Stations established (III): None

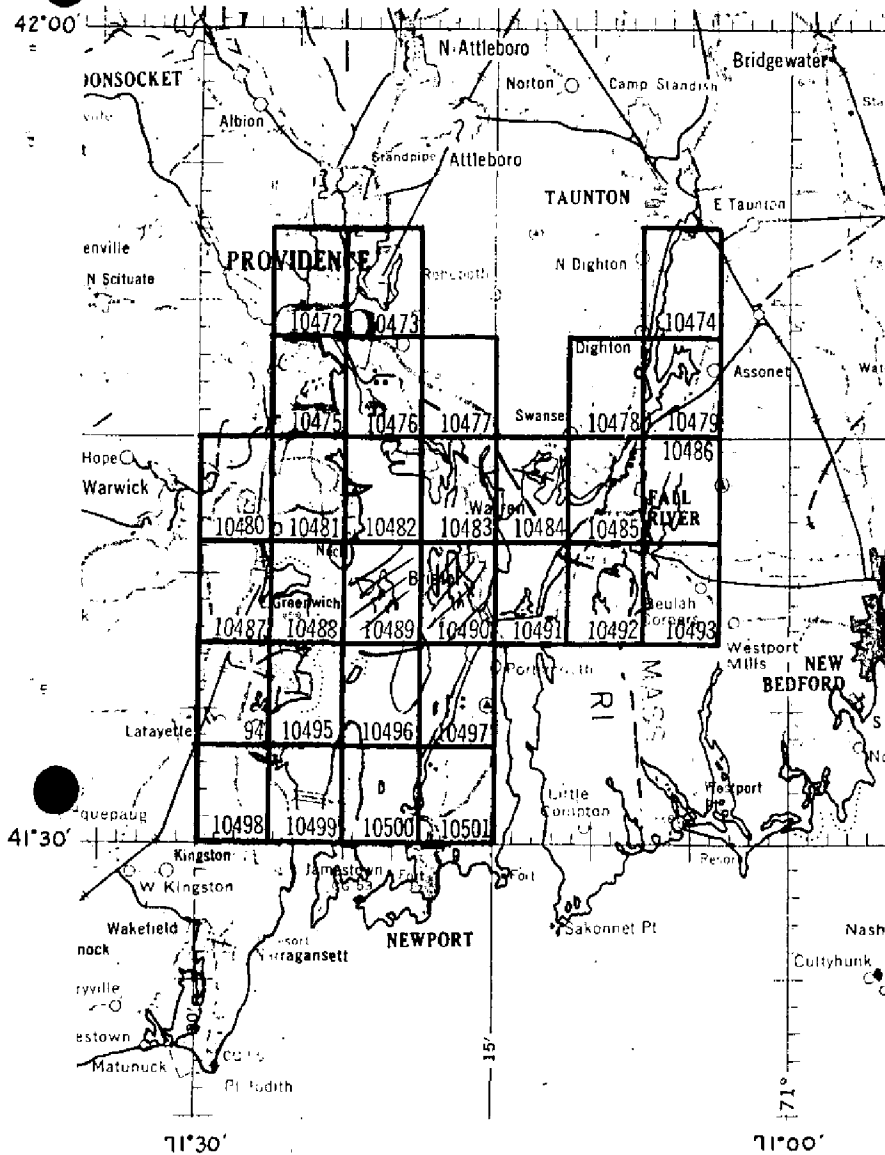
Number of Temporary Photo Hydro Stations established (III): Refer to item 38.

Remarks:

# PLANIMETRIC MAPPING PROJECT PH - 163

Narragansett Bay, Mass. - Rhode Island

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OFFICIAL MILEAGE FOR COST ACCO

SHEET NO.	Lin.Mi. SHORELINE	ARE SQ.
10472	10	12
10473	7	12
10474	- 0 -	12
10475	8	10
10476	6	1
10477	2	1
10478	1	1
10479	7	1
10480	2	1
10481	4	1
10482	8	1
10483	6	1
10484	8	1
10485	8	10
10486	7	10
10487	3	1
10488	6	1
10489	7	1
10490	8	1
10491	8	1
10492	4	11
10493	3	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  
86 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.

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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

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FIELD INSPECTION REPORT

Project 25120

Map T-10489

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:

*Frank J. Fitzgerald*  
for  
Ira R. Rubottom  
Chief of Party

FIELD INSPECTION PHOTOS -

56W-184, 185, 203, 204,  
205, 227

54W 1100, 1101

1,000

1 FT. = 3048006 MEIER	3/29/57	8/16/57	COMM-DC-57843
COMPUTED BY: A. K. Heywood	DATE	CHECKED BY: Henry P. Eichert	DATE

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COMPILATION REPORT  
Survey T-10489  
Project PH-163

The photogrammetric plot report for this survey is part of the descriptive report for survey No. T-10472.

31. DELINEATION

The delineation was done by Kelsh Plotter.

32. CONTROL

Horizontal control was adequate.  
Vertical control is inapplicable.

33. SUPPLEMENTAL DATA

Copies of boat sheets H-8313 and H-8395 for comparison.  
U.S.G.S. Bristol quadrangle for county boundary.  
Final Name Sheet dated 5 March 1957.

34. CONTOURS AND DRAINAGE

Contours are inapplicable.  
Drainage is complete.

35. SHORELINE AND ALONGSHORE DETAILS

All shoreline was field inspected and is complete and adequate.

All low water line was field inspected. Rocks without elevations were office interpreted with the aid of the boat sheet.

36. OFFSHORE DETAILS

Refer to paragraph 8 of the field report. See paragraph 48 for several named submerged features that could not be delineated from the photographs.

37. LANDMARKS AND AIDS

None.

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38. CONTROL FOR FUTURE SURVEYS

No recoverable topographic stations were established.

A number of hydrographic signals in the area were observed in the Kelsh models. Their positions were in fair to good agreement with the graphic control surveys (Ph-1-E-56, Ph-1-F-56, Ph-1-H-56, Ph-1-L-56). Many signals could not be seen in the models and could not be verified. Refer to the descriptive report to accompany these surveys for the project.

Refer also to letter 711/rab dated 7 August 1958, subject: "Smooth sheet H-8395, Project CS 13870 (Ph-163) Narragansett Bay", copy of which is attached.

39. JUNCTIONS

Junction has been made with the following:

- To the north with survey No. T-10482.
- To the east with survey No. T-10490.
- To the south with survey No. T-10496.
- To the west with survey No. T-10488.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41. BOUNDARIES

A portion of the Kent County-Newport County boundary, as delineated on the U.S.G.S. Bristol quadrangle, was transferred in the vertical projector.

42. through 45. - Inapplicable.

46. COMPARISON WITH EXISTING MAPS

Geological Survey, Bristol, R. I. - Massachusetts quadrangle, scale 1:24,000, edition of 1955.

Bureau Survey No. T-5749 (1944) and T-5751 (1944), scale 1:20,000 date of issue 1949.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 278, scale 1:20,000, published November 1946, corrected to 8/9/54.

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

Approved and forwarded

*William F. Deane*  
William F. Deane  
CDR, C&GS  
Baltimore District Officer

Respectfully submitted  
8 January 1959

*Joseph W. Vonasek*  
Joseph W. Vonasek  
Carto. (Photo.)

T. 10489

- 4a. Classification label
- ☒

COMM-DC 34529

PH-163-15-

7 August 1958

To: LCDR Miller J. Doakel  
East Coast Field Party  
P. O. Box 3551  
St. Petersburg, Florida

Subject: Smooth Sheet H-8395, Project CO-839/0  
(PH-163) Barragansett Bay

References: LCDR Robert G. Darling's letter of 12  
June 1958 and our reply of 20 June 1958  
same subject

The signal discrepancies have been resolved as stated in subsequent paragraphs of this letter. The eight planotable graphic control sheets are being forwarded to you. New blue-line tracings at scale 1:10,000 of photogrammetric manuscripts T-10487, T-10490, T-10496, and T-10497 are being prepared and will be forwarded to you shortly.

The following is a resume of the work in this area of the project:

1. Graphic control surveys were made by a field party of the Photogrammetry Division ahead of the photogrammetric mapping to provide immediate control for hydrography.
2. Photogrammetric mapping followed the graphic control surveys to provide shoreline for the hydrographic sheets and map information for charts.
3. Some of the graphic control sheet stations were identified on the photographs but many of those stations were not identified and cannot be located by photogrammetric plot.
4. The shoreline pass points shown on the photogrammetric manuscripts are not necessarily identical with graphic control sheet stations and usually are not identical with those stations.
5. LCDR Darling reported in the reference letters discrepancies between the graphic control stations and the photogrammetric manuscripts ranging up to 2 millimeters.

6. We have checked the stereoscopic collimation of shoreline details by multiplex and graphic control stations and were identified by means of a stereoplanigraph bridge. This stereoplanigraph work is well controlled and can we believe be accepted as somewhat more accurate than either the multiplex or the graphic control surveys.

7. Some of the apparent discrepancies were not identical objects. See item 4 above.

8. In general the multiplex work that is a correlation of shoreline details was accurate. The only notable discrepancy found in the multiplex work at station "NAT". The accepted stereoplanigraph position differs by about ten meters from the graphic control position and about five meters from the multiplex position.

9. We were able to check only those graphic control stations that had been identified on the photographs. This check indicates that the graphic control was generally good but there were some errors that we take to be random errors. Most of these are small and we think that you should use the graphic control positions except as stated under item 10.

10. We have relocated the following graphic control stations and the accepted stereoplanigraph positions are shown on the photogrammetric manuscripts, copies of which are being prepared for you. It is suggested that you use these positions for the smooth sheet rather than the graphic control sheet positions and notes to this effect have been placed on the graphic control sheets: NAT, HVT, BEL, BOX, GUS, and HEX. The difference in position between the stereoplanigraph and the graphic control sheets amounts to about ten meters at station NAT, and twelve to fifteen meters at station BOX. Otherwise the differences range from five to seven meters.

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You may now resume work on the plotting of sheet E-8993 and I doubt that you will have any further difficulty with signals. However, we have not been able to check all of the graphic control stations in this area since they were not all identified and I should like to hear from you if you do have further trouble. Please insert a copy of this letter in the descriptive report for E-8993 so that the record will be available should any question arise later in this office.

(Signed) Charles Pierce

Assistant Director

cc: Baltimore District Office  
Tampa District Office  
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NOTES FOR THE REVIEWER

During the photogrammetric office review, some of the signals that could not be seen in the models were transferred graphically from the field photographs to the work sheet and compared with the graphic control surveys. Appreciable discrepancies were noted at signals BUM, NON, OUT (sheet H) GAM (sheet F) BUT, ALP (sheet E).

The application of the name EAST PASSAGE to that part of Narragansett Bay appearing on this survey should be verified.

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REVIEW REPORT  
T-1048<sup>80</sup>9, 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 Henry  
Chief, Photogrammetric Branch

J. Ralph Lotensalki  
Chief, Photogrammetry Division

John D. Boyer  
Chief, Marine Chart Division

MAR 26 1969

GEOGRAPHIC NAMES

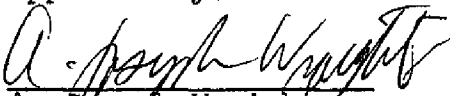
FINAL NAME SHEET

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

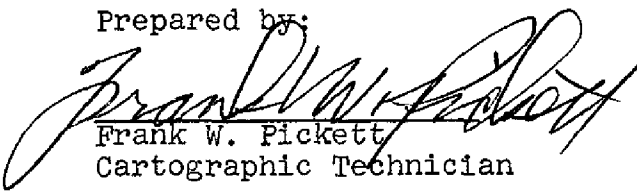
T- 10489

·Barden Rock	·Patience Island
·Bear Point	·Pine Hill
·Coggeshall Cove	·Pine Hill Ledge
·East Passage	·Portsmouth
·Gull Point	·Potter Cove
·Jenny Pond	·Providence Point
·Johnson Ledge	·Prudence Island
·Kent County	·Sand Point
·Long Point	·Sheep Pen Cove
·Mill Creek	·Sheep Pen Swamp
·Mount Tom Rock	·Shell Island
·Nag Pond	·Spring Rock
·Narragansett Bay	·The Brothers
·Newport County	·Warwick
·Northeast Point	·Warwick Neck
·Northwest Point	·West Passage
·Ohio Ledge	PINE HILL POINT
·Old Pier Rock	Checked by F.W. Pickett 5/26/68

Approved by:

  
A. Joseph Wraight  
Chief Geographer

Prepared by:

  
Frank W. Pickett  
Cartographic Technician

