

10481

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-10481

### LOCALITY

State Rhode Island

General locality Narragansett Bay

Locality Warwick Pond

1956

### CHIEF OF PARTY

I.R. Rubottom, Chief of Party

W.E. Randall, Balto. District Officer

### LIBRARY & ARCHIVES

DATE February 11, 1968

10481

DESCRIPTIVE REPORT - DATA RECORD

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F- 10481

Project No. (II): **Ph-163**  
**PSAPP**      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):      Copy filed in Division of  
**(II) 9 April 1956**      Photogrammetry (IV)  
**13 March 1957**

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):

Date received in Washington Office (IV):

**OCT 11 1960**

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 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): **No. 10 (RISFC) 1956**

Lat.: **41° 44' 33.440" (1031.7 m)** Long.: **71° 22' 47.558" (1099.0 m)**

Adjusted  
~~UNADJUSTED~~

Plane Coordinates (IV):

State: **Rhode Island** Zone:

Y=

X=

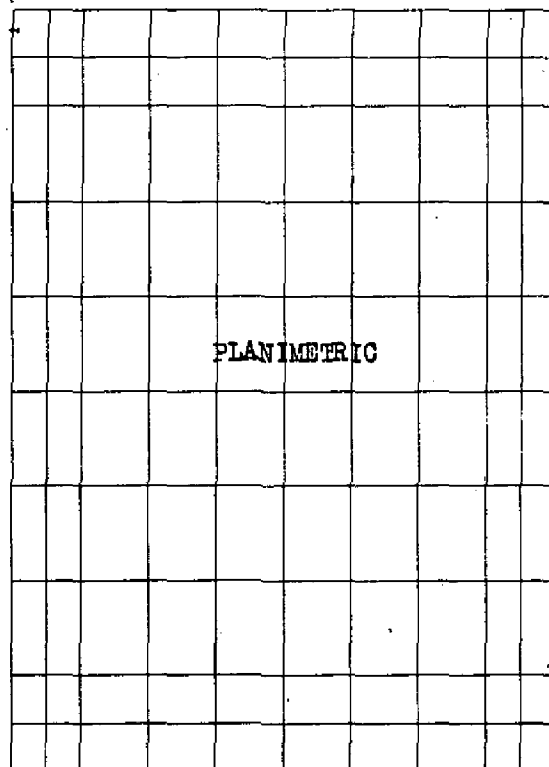
Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,  
or (IV) Washington Office.

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

DESCRIPTIVE REPORT - DATA RECORD

T-10481

71° 26.25'



41° 45.0'

41° 41.25'

71° 22.5'

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:

REFER TO FOOTNOTE PAGE 5

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): B. Kurs

Date: 8/28/57

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

Date: 9/4/57

~~Radial Plot~~ Stereoscopic  
Control extension by (III):

D. M. Brant

Date: 9/30/57

Planimetry B. Kurs  
Stereoscopic Instrument compilation (III):

Date: 8/18/58

~~Control~~

Date:

Manuscript delineated by (III): C. A. Lipscomb  
(scribed)

Date: 7/8/60

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

Date: 4/13/60

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

Date:



DESCRIPTIVE REPORT - DATA RECORD

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

Number	Date	PHOTOGRAPHS (III) Time (EST)	Scale	Stage of Tide
56-W-164 & 165	5/1/56	0831	1:30,000	1.8' above MLW
56-W-182 thru 184	"	0845	"	1.9' " "

Tide (III)  
(From Predicted Tide Tables)

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

Ratio of Ranges	Mean Range	Spring Range
	4.4	
	4.6	

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): 11.6  
Shoreline (More than 200 meters to opposite shore) (III): 6.7  
Shoreline (Less than 200 meters to opposite shore) (III): 3.0  
Control Leveling - Miles (II):  
Number of Triangulation Stations searched for (II): 10 Recovered: 4  
Number of BMs searched for (II): Recovered:  
Number of Recoverable Photo Stations established (III): None  
Number of Temporary Photo Hydro Stations established (III): None

Identified: 3  
Identified:

Remarks:

One (1) third-order triangulation station established.

FIELD EDIT:

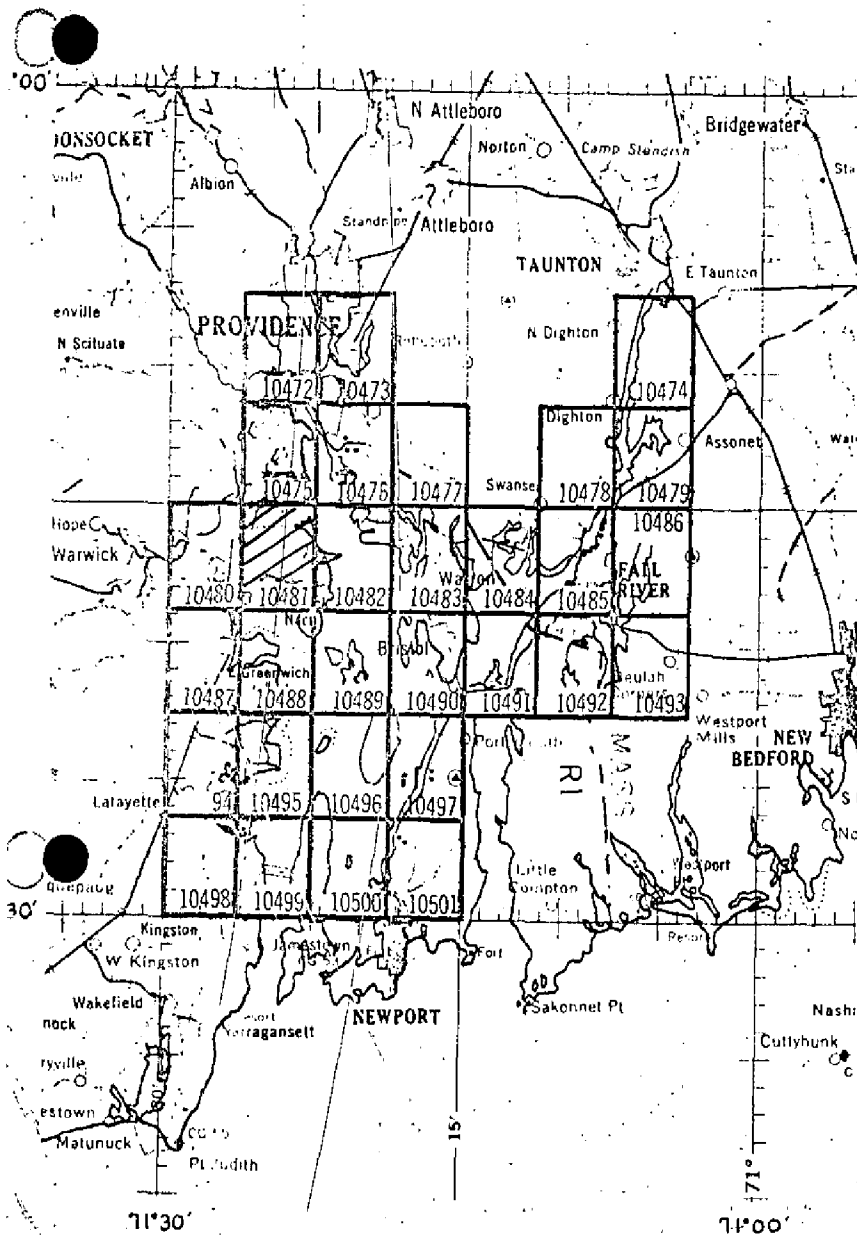
LIMITED FIELD EDIT BY HYDROGRAPHIC  
SURVEY PARTY H-8314

DATE: 1956

NO FIELD EDIT SHEET SUBMITTED.

# 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	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-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.



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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

FIELD INSPECTION REPORT  
Project 25120  
Map T-10481

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 G. Fitzgerald*  
*for*

Ira R. Rubottom

Chief of Party

FIELD INSPECTION PHOTOGRAPHS -

56W-164 THRU 166

56W 183 " 185

54W 1048, 1099B, 1099C,

1099D, 1100, 1101

PHOTOGRAPHS 54W 1099B, 1099C,  
1099D WERE MISSING AT THE  
TIME OF FINAL REVIEW - APPARENTLY  
LOST.



SCALE FACTOR 1.000

COMM-DC-57843

8/8/57

- 12 -  
- 2 -

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COMPILATION REPORT  
Project Ph-163  
T-10481

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 to compile this manuscript.

32. CONTROL

Adequate horizontal control.  
Vertical control is inapplicable.

33. SUPPLEMENTAL DATA

Planetable Sheets Ph-1-C-56 and PH-1-G-56 (comparison).  
Final Name Standard dated 5 March 1957.

34. CONTOURS AND DRAINAGE

Contours are inapplicable.  
All visible drainage was delineated.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection was adequate. All alongshore details believed to be adequately shown.

36. OFFSHORE DETAILS

Refer to paragraph 8 of the field report for T-10480.

37. LANDMARKS AND AIDS

Submitted on Form 567.



38. CONTROL FOR FUTURE SURVEYS

No topographic stations were established.

A number of hydrographic signals in this area were observed in the Kelsh models. Their positions were in fair to good agreement with the graphic control surveys (PH-1-G-56 and PH-1-G-56). Many signals could not be seen in the models so that verification was impossible. Refer to the Descriptive Report to accompany Graphic Control Survey Sheets Ph-1-A-56 through Ph-1-N-56 submitted for this project.

39. JUNCTIONS

The manuscript junctions with T-10475 to the north; T-10488 to the south; T-10482 to the east and T-10480 to the west. All junctions are in agreement.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41 - 45 No comment.

46. COMPARISON WITH EXISTING MAPS

U.S.G.S. 7½ minute quadrangle of East Greenwich, R. I., scale 1:24,000, revised 1957, edition of 1959.

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 Nov. 1946, corrected to 17 January 1959.

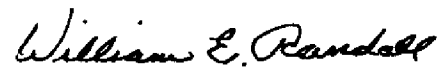
Items to be applied to nautical charts immediately: None.

Items to be carried forward: None.

Respectfully submitted  
18 August 1958

  
Bernard Kurs  
Carto. Photo. Aid

Approved and forwarded

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

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PHOTOGRAMMETRIC OFFICE REVIEW

T. T-10481

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

CONTROL STATIONS

4a. Classification label \_\_\_\_\_

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 L. Rolfe Joseph Stember

Reviewer

Supervisor, Review Section or Unit

13 APRIL 1960

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. BLANKEN BAKER

Compiler

Supervisor

43. Remarks: NOV, 1966

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:

Charles J. Hansen  
Chief, Photogrammetric Branch

S. G. Blankenbaker  
S. G. Blankenbaker

V. Ralph Sobieralski FEB 05 1968  
Chief, Photogrammetry Division

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



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1-9-68

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Rhode Island)

T-10481

✓Baker Creek  
✓Bayside  
✓Brush Neck  
✓Brush Neck Cove  
✓Buckeye Brook  
✓Buttonwoods Cove  
✓Coles  
✓Conimicut  
✓Gaspee Point  
✓Green~~e~~ Island  
✓Horse Neck  
✓Hoxsie  
✓Kettle Corner  
✓Knowles Brook  
✓Lakewood  
✓Lincoln Park  
~~Little~~ Sand Pond  
✓Lockwood Brook  
✓Lockwood Corner  
✓Norwood

*Posneganset Pond* → *pp*

✓Oakland Beach  
✓Occupessatuxet Cove  
✓Old Mill Creek  
✓Old Warwick Cove  
✓Palace Garden  
✓Passeonkquis Cove  
~~Posneganset Pond~~  
✓Providence River  
✓Rock Island  
~~Sand Pond~~ *Little Pond*  
✓Shawomet  
✓Spring Green~~e~~  
✓Spring Green~~e~~ Pond  
✓Theodore Francis Greene  
Airport  
✓Tuscatucket River  
✓Warner Brook  
✓Warwick  
✓Warwick Pond  
✓Warwick Neck  
✓Wilde Corner

Approved by:

*A. Joseph Wraight*

A. J. Wraight  
Chief Geographer

Prepared by:

*Frank W. Pickett*

Frank W. Pickett  
Cartographic Technician



**TO BE CHARTERED**  
**HIGHWAY**

**STRIKE OUT ONE**

15 October 1959

## Salts

# NAVIGATION AIDS for LANDMARKS FOR CHARTS

I recommend that the following objects which have ~~(not been)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(dated 1966)~~ the charts indicated.

The positions given have been checked after listing by  
**Joseph U. Vonasek**

**William F. Deane**

**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. 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

Comm-DC 28356

## NOTES FOR THE REVIEWER

The geographic position for triangulation station 596, USGS, 1934 is evidently in error. For additional information refer to a letter dated 18 March 1959, included with the Photogrammetric plot report in the Descriptive Report for quadrangle T-10472. It is recommended that this station be removed from the manuscript at time of final review.

During the Photogrammetric office review, the hydrographic signals, which were difficult to see in the Kelsh models, were transferred graphically from the field photographs to the manuscript and then compared with the graphic control surveys. Discrepancies were noted at signals HAS and IMP.

In places where field inspection was inadequate, U.S.G.S., 7½ minute quadrangle of East Greenwich, R. I., scale 1:24,000; 1959 was used.

