

10483

Diag. Cht. No. 12102.

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-10483

LOCALITY

State Massachusetts - Rhode Island

General locality Narragansett Bay

Locality Warren

1956

CHIEF OF PARTY

I.R. Rubottom, Chief of Party

W.E. Randall, Balto. District Officer

LIBRARY & ARCHIVES

DATE February 15, 1968

USCOMM-DC 37022-P66

334101

DESCRIPTIVE REPORT - DATA RECORD

- 2 -

10483

Ph-163

Project No. (II): ~~PH-163~~

Quadrangle Name (IV):

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

Chief of Party: Ira R. Rubottom

Photogrammetric Office (III): Baltimore, Maryland

Officer-in-Charge:

Instructions dated (II) (III):

Copy filed in Division of
Photogrammetry (IV)

(II) 9 April 1956

13 March 1957

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

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):

~~Mean Sea Level~~ MHW
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): RUM 2, 1956

Lat.: 41° 42' 23.892" (737.1 m) Long.: 71° 18' 10.853" (250.9 m)

Adjusted
~~CRS 1983~~

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.

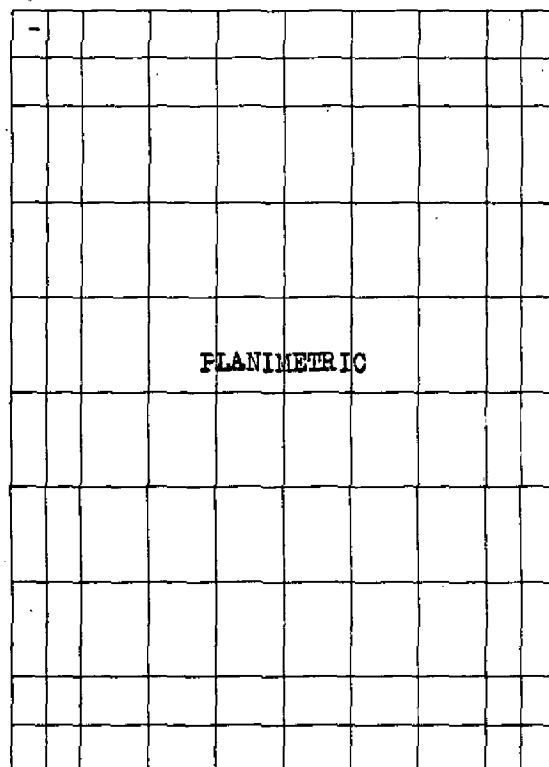
When entering names of personnel on this record give the surname and initials, not initials only.

DESCRIPTIVE REPORT - DATA RECORD

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

- 3 -

71° 18.75'



41° 45.0'

41° 41.25'

71° 15.0'

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

DESCRIPTIVE REPORT - DATA RECORD

- 4 -

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): 1956 field inspection on 1956
photographs

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

Date: 3/29/57

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

Date: 3/29/57

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

Date: 8/1/57

Control checked by (III): B. Kurs

Date: 8/8/57

Radial Plot or Stereoscopic Control extension by (III): E. L. Rolle

Date: 9/30/57

Stereoscopic Instrument compilation (III): Planimetry J. W. Robinson

Date: 2/14/58

~~CONDUCT~~

Date:

Manuscript delineated by (III): R. J. Mechlinski
(scribed)

Date: 11/27/59

Photogrammetric Office Review by (III): R. Glaser

Date: 10/30/59

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

Date:

DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): USC&GS single lens "W" camera

- 5 -

Number	Date	PHOTOGRAPHS (III) Time (EST)	Scale	Stage of Tide
56-W-222 thru 224	5/1/56	0918	1:30,000	2.3' above MLW
245 " 246	"	0932	"	2.5 " "
208	"	0904	"	2.1 " "

Tide (III) (From Predicted tables)

Reference Station: Newport, R. I.
Subordinate Station: Nayatt Point, R. I.
Subordinate Station: Fall River, Mass.

Ratio of Ranges	Mean Range	Spring Range
-	3.5	4.4
-	4.6	5.7
-	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): 11.5

Shoreline (More than 200 meters to opposite shore) (III): 18.0 mi.

Shoreline (Less than 200 meters to opposite shore) (III): 2.5 mi.

Control Leveling - Miles (II):

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

Identified: 6

Number of BMs searched for (II): None Recovered:

Identified:

Number of Recoverable Photo Stations established (III): None

Number of Temporary Photo Hydro Stations established (III): See item 38

Remarks:

Four (\$) third-order triangulation stations established.

FIELD EDIT

LIMITED FIELD EDIT BY HYDRO SURVEY

PARTIES H-8314 and H-8396

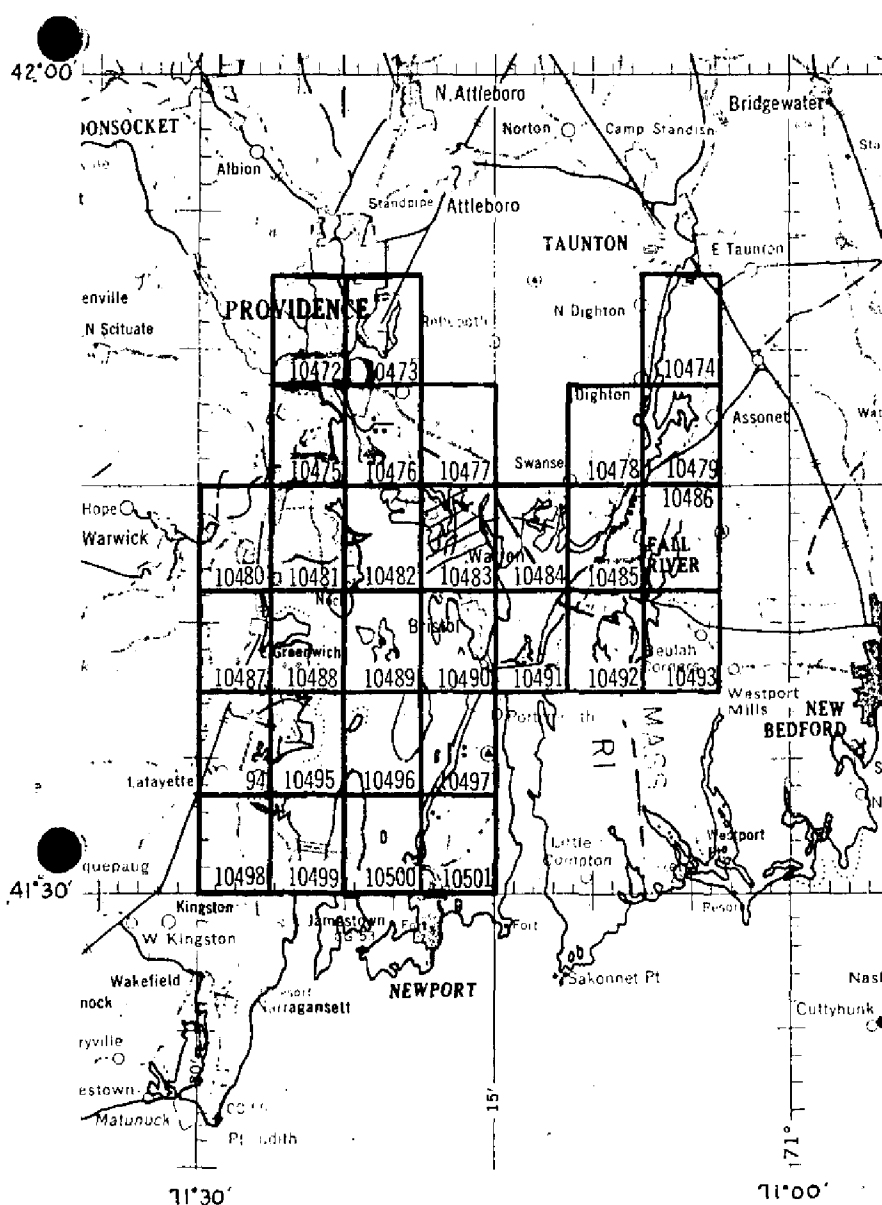
DATE 1956
1957

NO FIELD EDIT SHEET SUBMITTED

PLANIMETRIC MAPPING PROJECT PH - 163

Narragansett Bay, Mass. - Rhode Island

6-



OFFICIAL MILEAGE FOR COST ACC

SHEET NO.	Lin. Mi. SHORELINE	SQ. MI. AREA
10472	10	12
10473	7	12
10474	- 0 -	12
10475	8	10
10476	6	12
10477	2	12
10478	1	12
10479	7	12
10480	2	12
10481	4	12
10482	8	12
10483	6	12
10484	8	12
10485	8	10
10486	7	10
10487	3	12
10488	6	12
10489	7	12
10490	8	12
10491	8	12
10492	4	12
10493	3	12
10494	2	12
10495	5	12
10496	5	12
10497	5	12
10498	- 0 -	12
10499	10	12
10500	6	12
10501	2	12
TOTALS	158	29

- 7 -

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.

- 8 -

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

-9-
2

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

-10-
-7-

FIELD INSPECTION REPORT
Project 25120
Map T-10483

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 PHOTOGRAPHS

56W 222 thru 224

56W 245 " 246

54W 1142 " 1144

PHOTOGRAPHS 56W 245 and 246, 54W
1142 WERE MISSING AT THE
TIME OF FINAL REVIEW -
APPARENTLY LOST

MAP T-10483

PROJECT NO. Ph-163

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

[illegible]

1 FT = 3048006 METER

COMPUTED BY: **A. K. Heywood**

DATE 3/29/57

CHECKED BY: **B. KURS**

DATE 8/6/57

COMM-DC-57843

- 12 -
- 2 -

COMPILATION REPORT
T-10483

The photogrammetric plot report covering the area of this survey is part of the Descriptive Report for survey T-10472.

31. DELINEATION

The Kelsh plotter was used for delineation.

32. CONTROL

The identification, density and placement of horizontal control was adequate.

Vertical control is not applicable.

33. SUPPLEMENTAL DATA

1. Final name standard, dated 5 March 1957.
2. Copy of boat sheet H-8314, for comparison.
3. Copies of planetable surveys: Ph-1-D S/2-56, Ph-1-E-56 and Ph-1-D N/2-56.

34. CONTOURS AND DRAINAGE

Contours: Not applicable.

Drainage which was difficult to interpret on the photographs was well field inspected. The balance, drainage which was obvious, was delineated from office examination of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection was adequate.

No low-water lines were field inspected and none are delineated on the survey.

One small shallow area was field inspected and was delineated on the manuscript.

36. OFFSHORE DETAILS

No comment.

37. LANDMARKS AND AIDS

Forms 567 for 3 (three) landmarks and one (one) aid to navigation to be charted and for 1 (one) landmark to be deleted were submitted by the field party 5 Feb. 1957.

38. CONTROL FOR FUTURE SURVEYS

Of the 45 (forty-five) photo-hydro stations in the area of this survey, 30 (thirty) could be verified in the models. Reasonably good agreement was noted for most of the positions when compared with graphic control surveys Ph-1-D-S/2-56, Ph-1-E-56 and Ph-1-D N/2-56.

Refer to "Descriptive Report to accompany Graphic Control Survey Sheets Ph-1-A-56 through Ph-1-N-56" submitted for this project.

No recoverable topographic stations were established.

39. JUNCTIONS

To the north with T-10477

To the east with T-10484

To the south with T-10490

To the west with T-10482

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41. BOUNDARIES

With the exception of the Rhode Island-Massachusetts State boundary, all boundaries were taken from the U. S. G. S. Bristol, R. I. - Mass. quadrangle.

42 through 45.

Not applicable.

46. COMPARISON WITH EXISTING MAPS

U.S.G.S. 7½ minute quadrangle Bristol, R.I. - Mass., scale 1:24,000 surveys of 1939, revised 1955.

U.S.C. & G.S. Shoreline Survey T-5749, scale 1:20,000, issued July 1949.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 278, scale 1:20,000, published November 11, 1946. Revised 8/25/58 and corrected to 1/17/59.

Items to be applied to Nautical Charts immediately:

None.

Items to be carried forward:

None.

Respectfully submitted
31 October 1959

Raymond Glaser

Raymond Glaser
Carto. (Photo.)

Approved and forwarded

William E. Randall

William E. Randall
LCDR, CGS
Baltimore District Officer

10-31-59

-15-

PHOTOGRAMMETRIC OFFICE REVIEW

T-10483

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

5a. 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. R. Blaser 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

Compiler

Supervisor

43. Remarks:

Nov, 1966

-16-

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:


Chief, Photogrammetric Branch


S. G. Blankenbaker

 FEB 05 1968
Chief, Photogrammetry Division

 3/13/68
Chief, Marine Chart Division

-17-
1-9-68

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Rhode Island)

T-10483

Adams Point
Allen Rock
Barrington
Barrington Beach
Barrington River
Beach Terrace
Belcher Cove
Bristol
Bristol Highlands
Bristol Neck
Deyer Rock
Hampton Meadows
Heath Brook
Hyde Hole
Jacobs Point
Kickamuit River
Laurel Park
Leahy Pond
Little Island

*Rumstick Rock - M.
Rumstick Shoal - M.*

Lower Middle Ground
Narragansett Bay
New Meadow Neck
Penivs Rocks
Rumstick Ledge
Rumstick Neck
Rumstick Point
Silver Creek
Smith Cove
Swansea
The Brothers
Tree Point Rocks
Tyler Point
Upper Middle Ground
Upper Grinnell Point
Warren
Warren Reservoir
Warren River

Approved by:

A. Joseph Wright
A. Joseph Wright
Chief Geographer

Prepared by:

Frank W. Pickett
Frank W. Pickett
Cartographic Technician

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED
TO BE REVISED
~~TO BE DELETED~~

Morgan City, Louisiana 5 February 1957

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

The positions given have been checked after listing by Isaiah Y. Fitzgerald

/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**

TO BE CHARTED }
TO BE REVISED } STRIKE OUT TWO
TO BE DELETED }

NON-FLOATING AIDS/OR LANDMARKS FOR CHARTS

Morgan City, Louisiana 5 February 1957

I recommend that the following objects which have ~~hided~~ *hob* been inspected from seaward to determine their value as landmarks be charted on ~~sketched~~ *from* the charts indicated.

The positions given have been checked after listing by
Isaiah Y. Fitzgerald

/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

NOTES TO REVIEWER
T-10483

- 21 -

During the photogrammetric office review, the photo-hydro signals not verified in the models were transferred graphically to the worksheet for comparison. Good agreement was noted for most of these points when compared with the graphic control surveys.

Station "ADO", on Rumstick Neck, was obviously incorrectly identified on photograph 54-W-1142. The manuscript position disagreed with the plane-table position by more than a centimeter at manuscript scale.

The note "Town Hall" was inspected on photograph 56-W-222. The dome of the same building was called "Warren City Hall Dome" on 56-W-223. This dome is also a hydro station.

