

10476

Diag. Cht. No. 1210-2 Insert

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-10476

LOCALITY

State Massachusetts - Rhode Island

General locality Narragansett Bay

Locality Riverside

1956

CHIEF OF PARTY

I.R. Rubottom, Chief of Party

W.E. Randall, Balto. District Officer

LIBRARY & ARCHIVES

DATE Februaury 11, 1968

USCOMM-DC 37022-P66

10476

DESCRIPTIVE REPORT - DATA RECORD

- 2 -

T- 10476

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: 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
(Pantograph ratio 3/5)

Scale Factor (III): 1.000

Date received in Washington Office (IV): 23 AUG 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):

~~Mean Low Water~~ 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): Rhode Island Corner, 1890

Lat.: 41° 46' 33.77" (1041.9 m) Long.: 71° 19' 05.71" (131.9 m)

Adjusted
~~Coordinates~~

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.

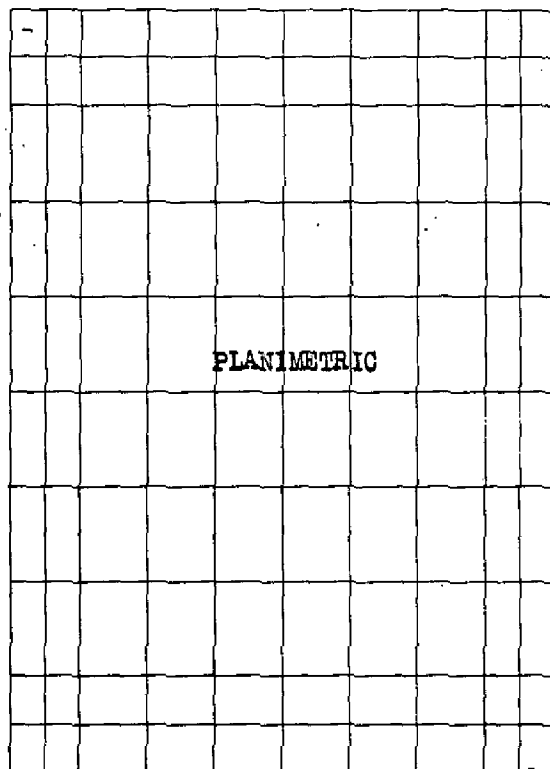
When entering names of personnel on this record give the surname and initials, not initials only.

FORM 181a
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

71° 22.5'



41° 48.75'

41° 45.0'

71° 18.75'

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

DESCRIPTIVE REPORT - DATA RECORD

- 4 -

Field Inspection by (II): **John S. Winter**
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): **Field verified in 1956 on 1956 photographs**

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

Date: **8/6/57**

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

Date: **8/6/57**

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

Date: **8/29/57**

Control checked by (III): **D. M. Brant**

Date: **8/30/57**

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

Date: **9/30/57**

Stereoscopic Instrument compilation (III):
Planimetry **B. Kurs**)
J. D. McEvoy)
J. C. Richter)
~~KORCANEK~~

Date: **2/7/58**

Date:

Manuscript delineated by (III): **M. S. Cunningham**
(Scribed)

Date: **1/26/60**

Photogrammetric Office Review by (III): **R. Glaser**

Date: **12/10/59**

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

Date:

FIELD EDIT -

**LIMITED FIELD EDIT BY HYDROGRAPHIC
SURVEY PARTIES (H-8314 AND H-8316)**

DATE: 1956

NOTE: NO DISCREPANCY PRINT SUBMITTED

DESCRIPTIVE REPORT - DATA RECORD

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

- 5 -

Number	Date	PHOTOGRAPHS (III) Time (EST)	Scale	Stage of Tide
56-W-180 thru 182	5/1/56	0844	1:10,000	1.9, above MLW
209 thru 212	"	0905	"	2.1 " "

Tide (III)
(From Predicted Tables)

Reference Station: **Newport, R. I.**
Subordinate Station: **Nayatt Point, R. I.**
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	3.5	4.4
	4.6	5.7

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): **12 sq. mi.**

Shoreline (More than 200 meters to opposite shore) (III): **10 mi.**

Shoreline (Less than 200 meters to opposite shore) (III): **4 mi.**

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): **13** Recovered: **8** Identified: **3**

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:

Two (2) new third- order triangulation stations established.

6



OFFICIAL MILEAGE FOR COST ACCOUNT		
	Lin. Mi.	AREA
<u>SHEET NO.</u>	<u>SHORELINE</u>	<u>SQ. MI.</u>
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

7

SUMMARY TO ACCOMPANY DESCRIPTIVE REPORTS
T-10472, T-10473, T-10475 and T-10476
Job PH-163

Job PH-163 is comprised of thirty planimetric surveys and covers the Narragansett Bay, Rhode Island-Massachusetts area.

A complete field inspection preceded compilation. Limited field edit was accomplished in conjunction with contemporary hydrographic surveys H-8314 and H-8316. The project was bridged by multiplex and compiled by Kelsh plotter.

Difficulties encountered by the hydrographic survey verifier in adjusting hydrographic information based on plane table and photogrammetric control are discussed in the individual review reports and in the Addendum to this Summary.

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

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-10476

Please refer to the Field Inspection Report for Map T-10472
for all data pertaining to this map.

Isaiah Y. Fitzgerald
Photogrammetric Engineer

Approved:

Ira R. Rubottom

Ira R. Rubottom
Chief of Party

FIELD INSPECTION PHOTOS - SOME OF WHICH
ARE MISSING - ARE LISTED IN THE
FIELD INSPECTION REPORT.

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
DESCRIPTIVE REPORT
CONTROL RECORD

MAP T. 10476

PROJECT NO. Ph-163

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
EAST PROVIDENCE SQUANTUM CLUB STACK, 1956	GP p. 171	N.A. 1927	41 47 33.197	1024.2	826.9				
			71 22 09.080	209.7	1175.6				
PROVIDENCE RIVER LIGHT 17A, 1956	p. 169	"	41 46 34.617	1068.0	783.1				
			71 22 27.093	625.7	760.0				
POMHAM CLUBHOUSE, 1912	p. 113	"	41 46 40.214	1240.7	610.4				
			71 21 54.674	1262.7	123.0				
EAST PROVIDENCE MUNICIPAL WATER TANK, 1912	p. 28	"	41 48 11.533	355.8	1495.3				
			71 21 32.542	751.3	633.8				
POMHAM ROCKS LIGHTHOUSE, 1897	p. 113	"	41 46 39.077	1205.6	645.5				
			71 22 12.112	279.7	1106.0				
KENT (MGS) 1938	p. 28	"	41 48 12.014	370.7	1480.4				
			71 21 32.828	757.9	627.2				
POMHAM BEACON 1897	p. 113	"	41 46 34.635	1068.6	782.5				
			71 22 27.213	628.5	757.2				
M6BT (MGS) USE	C. of E. PROX. Quad. p. A 39	"	41 47 40.555	1251.2	599.9				
			71 19 47.354	1093.3	292.0				
M6BU (MGS) USE	"	"	41 47 08.879	273.9	1577.2				
			71 18 52.217	1205.8	179.7				
RHODE ISLAND CORNER, 1890	p. 158	"	41 46 33.77	1041.9	809.2				
			71 19 05.71	131.9	1253.8				
SWANSEA CORNER 3, 1890	p. 158	"	41 46 31.64	976.2	875.0				
			71 19 00.77	17.8	1368.0				
Sub. Sta. M6BY MGS	Comp.	"	41 47	1215.7	635.4				
			71 19	1101.6	283.7				

1 FT. = 3048006 METER
COMPUTED BY J. C. Richter

DATE 26 July 1957

CHECKED BY J. C. Cregan

DATE 8/12/57

COMMA-DC-57843

COMPILATION REPORT
T-10476

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.

32. CONTROL

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

Vertical control is inapplicable.

33. SUPPLEMENTAL DATA

1. Map of Town of East Providence, R. I., used for boundary line delineated on discrepancy overlay. (See "Notes to Reviewer, T-10475")

2. U.S.G.S. quadrangle East Providence, Mass., R. I., is part of "Final Name Standard", dated 5 March 1957.

34. CONTOURS AND DRAINAGE

Drainage is complete.

Contours are inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS

All shoreline was field inspected and is complete and adequate.

All low-water lines are from field inspection data.

36. OFFSHORE DETAILS

No comment.

37. LANDMARKS AND AIDS

All landmarks and aids are listed on Forms 567, which were submitted in March 1959.

38. CONTROL FOR FUTURE SURVEYS

Refer to the attached notes regarding the photo-hydro stations in the area of the survey and also to the "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

Junctions have been made and are in agreement with the following surveys:

- To the north with T-10473.
- To the south with T-10482.
- To the east with T-10477.
- To the west with T-10475.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41. through 45

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

1. U.S.G.S. 7½ minute quadrangle, East Providence, Massachusetts, R. I., edition of 1941, reprinted 1951, scale 1:31,680.

2. Bureau Survey T-5748, S½, scale 1:10,000, compiled from photographs of July 1944.

47. COMPARISON WITH NAUTICAL CHARTS

Chart No. 352, 25th edition, January 1945, revised 6/6/55, scale 1:10,000.

Chart No. 278, 10th edition, November 1946, corrected to 1/17/59.

Items to be applied to nautical charts immediately: None.

Items to be carried forward: None.

Approved and Forwarded

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

Respectfully submitted
11 December 1959

Raymond Glaser
Raymond Glaser
Carto. (Photo.)

50-

PHOTOGRAMMETRIC OFFICE REVIEW

T-10476

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

CONTROL STATIONS

5a. 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. R. Glaser Reviewer Henry Reichert 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. Blenkerhaker
Compiler

Henry Reichert
Supervisor

43. Remarks: W.O., NOV, 1966

REVIEW REPORT
Planimetric Maps
T-10472, T-10473, T-10475 and T-10476
November 1966

61. General Statement

Field edit, accomplished by hydrographic survey parties during contemporary surveys H-8314 and H-8316, consisted of a check of landmarks, MHW line and topographic features seaward from the shoreline. Hydrographic survey changes in photogrammetric details were applied to the photogrammetric surveys during the subject final review.

Hydrographic survey verification and review preceded this review. The verifier (H-8316) encountered considerable difficulty in adjusting hydrographic information. These difficulties were never entirely eliminated. Since the difficulties were related, in part, to photogrammetric survey information, the Washington Office Review Group checked hydrographic signal location (previously located by plane table methods and identified on photographs) and the location of shoreline and alongshore features by graphic methods using field photographs containing primary control identified for bridging and the identified signals. New positions were obtained for 57 signals and shoreline changes were made in several areas. Most of the problems in adjusting hydrographic information and the related discrepancies between the surveys were resolved through application of the subject revisions. The combined Addendum to Summaries included in each Descriptive Report contains a discussion of the subject revision work and other problems encountered that relate to overall project accuracy and future surveys.

62 through 65. Comparisons

All prior Bureau topographic information (topographic and hydrographic surveys and the subject maps) located in the alongshore area were evaluated by contemporary hydrographic survey parties and/or verifiers. Prior Bureau surveys were not compared with the new maps during the subject review.

Refer to side heading 61 concerning comparison with contemporary hydrographic surveys. Comparison with nautical charts and maps of other agencies were made by photogrammetric compilers.

A number of discrepancies -- involving features (school names, boundaries, etc.) not applicable to either hydrographic surveys or nautical charts -- between these surveys and USGS quads were noted on discrepancy prints. The discrepancies were not resolved during field edit (hydro party); they cannot be resolved in the office.

66. Adequacy of Results and Future Surveys

Refer to the "Addendum to Summaries" included in this Descriptive Report.

Reviewed by:

S. G. Blankenbaker
S. G. Blankenbaker

Approved by:

Charles Lamm
Chief, Photogrammetric Branch

J. Ralph Sobieralski
Chief, Photogrammetry Division

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

JAN 30 1968

-17 -
(18)

1-9-68

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Rhode Island)

T-10476

•Annawomscutt Brook	•Luther Corner
•Armington Corner	•Narragansett Terrace
•Barrington	•Peck Corner
•Barrington River	•Pomham Rocks
•Boyden Heights	•Providence River
•Bullock Cove	•Richmond Point
•Bullock Neck	•Riverside
•Central Park	•Riverside Recreation Park
•Crescent Park	•Runnins River
•East Providence	•Sabin Point
•Haines Memorial Park	•Seekonk
•Hundred Acre Cove	•South Seekonk
•Kent Corner	•Squantum Point
•Kent Heights	•The Tongue
•Leonard Corner	•Whortleberry Island

Approved by:

A. Joseph Wraight
A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett
Frank W. Pickett
Cartographic Technician

- 18 -
47'
41° 45'
22° 30' 71° 18' 45'

REPORT TO ACCOMPANY CRONAFLEX PRINT FOR
SURVEY T-10476, PROJECT PH-163

The map manuscript was compared with the Geographic Control sheet Ph-1-56 D N/2, scale 1:10,000, projects 13870 and 25120. The following is a list of photo-hydro stations, how far and in what direction the graphic control position falls from the common photogrammetric position on the manuscript. Only those stations that could be seen or identified in the stereoscopic model were pricked on the map manuscript.

<u>Station Name</u>	<u>Difference on Graphic Control Sheet</u>
PAL	0.2 mm WNW
TRY	Held
SAX	0.6 mm NNW
ZOO	0.6 mm NW
USE	1.0 mm NNW
TAP	0.9 mm NNW
LET	0.9 mm N
MAL	0.9 mm E
JAR	Held
NED	0.6 mm N
WAD	0.3 mm W
* Barrington Congregational Church Spire (LDMK)	0.6 mm E

*This station falls on survey No. T-10482.

It is recommended that the positions of the stations plotted on the map manuscript be used in making the smooth sheets.

Respectfully submitted
3 July 1958

Leroy A. Senasack
Carto. Photo. Aid

Approved and forwarded

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

STRIKE OUT ONE

NONFITTING? AIDS? OR LANDMARKS FOR CHARTS

Baltimore, Maryland

10 March 1959

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

The positions given have been checked after listing by

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

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TO BE CHARTED
KZAA3750/24/01

STRIKE OUT ONE

NON-FLOATING AIDS OR LANDMARKS FOR CHARTS

Baltimore, Maryland

1 March 1959

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

The positions given have been checked after listing by Joseph H. 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.

- 22 -

T-10476

NOTES TO REVIEWER

The transmission line on photograph 56-W-211 is incorrectly field inspected. The inspected line misses the actual location of towers (as office identified) by as much as 200 meters.

Chart 278 incorrectly places the geographic name "NARRAGANSETT TERRACE" in the area of CRESCENT (amusement) PARK.

Refer to "Notes to Reviewer" for T-10475, regarding boundary lines in Providence River.

