10477

original

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Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. Ph-163 *Office No.* T-10477

LOCALITY

State Massachusetts - Rhode Island

General locality Providence River

Locality North Swansea

1956

CHIEF OF PARTY

Ira R. Rubottom, Chief of Party

William E. Randall, Baltimore Dist. Officer

LIBRARY & ARCHIVES

DATE 11 FEB 1968

USCOMM-DC 5087

10477

FORM 181
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

T-10477

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): MHW

[redacted]
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): REHOBOTH-SEEKONK-SWANSEA COR. (REHOBOTH CORNER 2), 1890

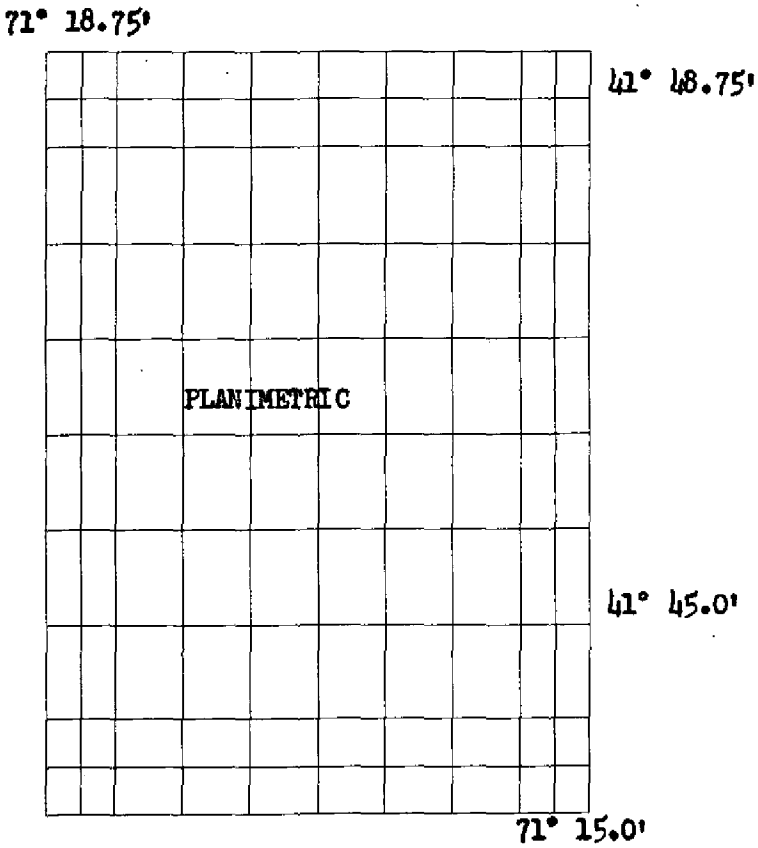
Lat.: 41° 46' 29.213" (901.3 m) Long.: 71° 17' 34.637" (800.0 m) Adjusted [redacted]

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.



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

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): John S. Winter — Date: May-October 1956

Planetable contouring by (II): — Date:

Completion Surveys by (II): — Date:

See footnote page 5

Mean High Water Location (III) (State date and method of location):
1956 (Photogrammetric - Kelsh Plotter)

Projection and Grids ruled by (IV): J. B. Phillips — Date: 28 March 1957

Projection and Grids checked by (IV): H. D. W. — Date: 29 March 1957

Control plotted by (III): J. C. Richter — Date: 1 August 1957

Control checked by (III): J. C. Cregan — Date: 6 August 1957

~~Radial Plot or~~ Stereoscopic Control extension by (III): E. L. Rolle — Date: 30 Sept. 1957

Stereoscopic Instrument compilation (III): Planimetry B. Kurs — Date: 17 July 1958

~~Contours~~ — Date:

Manuscript ~~delineated~~ by (III): R. J. Mechlinsky (scribed) — Date: 3 December 1959

[redacted]

FORM 181c
(4-23-54)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): U.S.C. & G. S. Type "W" 6" Focal Length

PHOTOGRAPHS (III)

Number	Date	Time (EST)	Scale	Stage of Tide
56-W-219	5/1/56	0916	1:30,000	2.3' above MLW
220	"	"	"	2.3' above MLW
221	"	0917	"	2.3' above MLW
222	"	0918	"	2.3' above MLW

Tide (III)
(Predicted tide tables)

	Ratio of Ranges	Mean Range	Spring Range
Reference Station: Newport, R. I.	--	3.5	4.4
Subordinate Station: Nyatt Point, R. I.	--	4.6	5.7
Subordinate Station:			

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): 13
Shoreline (More than 200 meters to opposite shore) (III): 5.5 mi
Shoreline (Less than 200 meters to opposite shore) (III): 6.5 mi
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 8 Recovered: 5 Identified: 2
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:

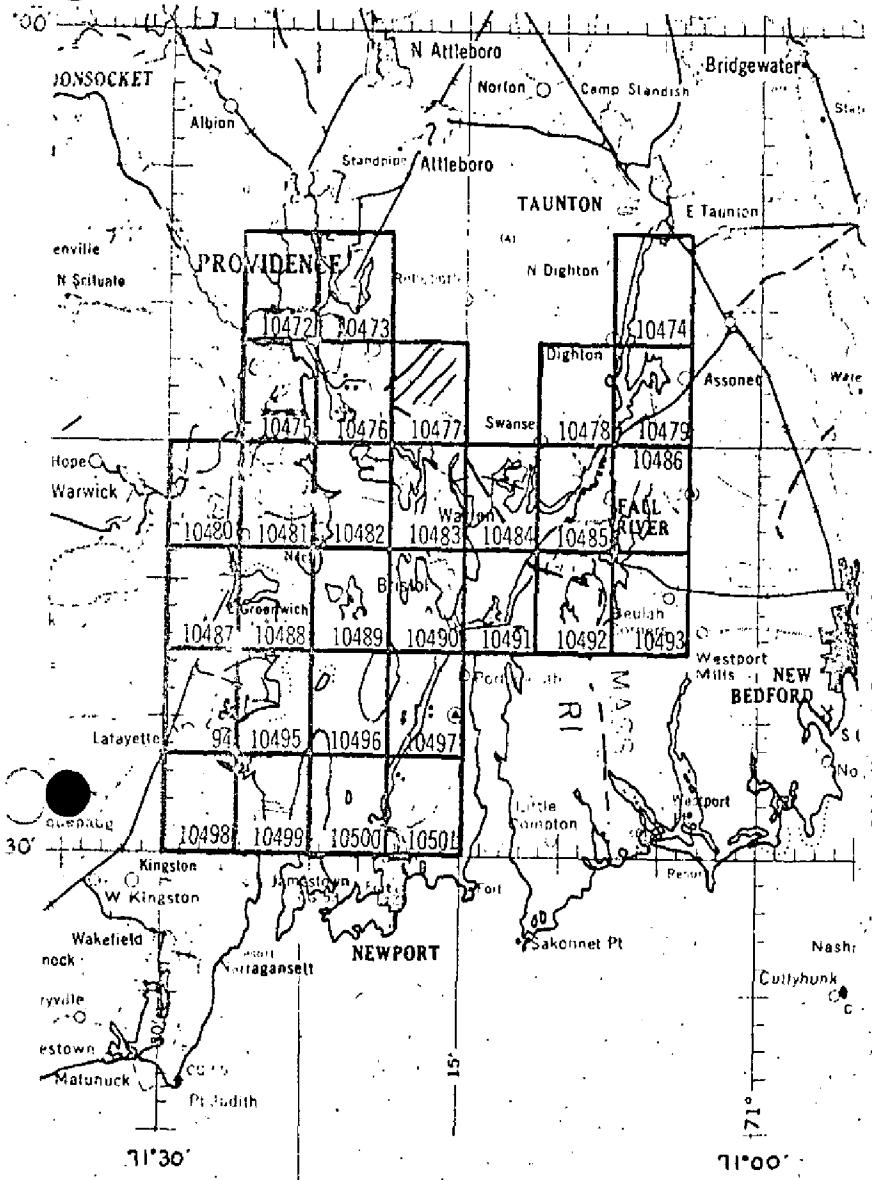
FIELD EDIT -
LIMITED FIELD EDIT BY HYDROGRAPHIC SURVEY PARTY.
NO CHANGES WERE MADE IN THE PHOTOGRAMMETRIC SURVEY DETAILS.

DATE : 1956

PLANIMETRIC MAPPING PROJECT PH - 163

Narragansett Bay, Mass.- Rhode Island

- 6 -



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

OFFICIAL MILEAGE FOR COST ACCOUNT

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.

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

[redacted]

-10-
-7-

FIELD INSPECTION REPORT
Project 25120
Map T-10477

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
Chief of Party

FIELD PHOTOGRAPH NUMBERS —
56W 218, 219, 220, 249

FORM 164
(4-23-54)

U.S. DEPARTMENT OF COMMERCE — COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT — CONTROL RECORD

MAP T-10477 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 FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
M6BR MGS	C of E Prov. Quad. A 36	N.A. 1927	41 46 22.819	704.0	1147.1					
			71 16 17.829	411.8	974.0					
M6BQ MGS	" A 35	"	41 46 15.895	490.4	1360.7					
			71 16 03.759	86.8	1299.0					
M6BT MGS	" A 37	"	41 46 57.260	1766.6	84.5					
			71 18 15.265	352.5	1033.1					
REHOBOTH-SEEKONK-SWANSEA COR. (REHOBOTH CORNER 2) 1890	Mass. p.642	"	41 46 29.213	901.3	949.8					
			71 17 34.637	800.0	585.8					
REHOBOTH CORNER 1, 1890	Mass. p.642	"	41 46 28.93	892.5	958.6					
			71 17 02.70	62.4	1323.4					
Sub. Sta. M6BT MGS	Comp.	"	41 46	1827.7	23.4					
			71 18	352.7	1032.9					
Sub. Sta. M6BQ MGS	"	"	41 46	514.9	1336.2					
			71 16	56.2	1329.6					

1 FT. = 3048006 METER

COMPUTED BY: J. C. Richter DATE 26 July 1957 CHECKED BY: J. C. Cregan DATE 6 August 1957

COMM-DC-57843

COMPILATION REPORT
T-10477

Refer to Descriptive Report T-10472 for the photogrammetric plot report.

31. DELINEATION

The Kelsh plotter was used to compile this manuscript.

32. CONTROL

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

33. SUPPLEMENTAL DATA

Final Names Sheet, dated 5 March 1957 on U.S.G.S. East Providence, Mass-R.I. quadrangle.
Graphic Control Sheet Ph-1-56-D N/2 for photo-hydro station comparison.

34. CONTOURS AND DRAINAGE

No contours on manuscript.

All visible drainage delineated.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection adequate. No low water or shoal lines shown on this manuscript.

36. OFFSHORE DETAILS

None on this manuscript.

37. LANDMARKS AND AIDS

None.

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 T-10483 to the south and T-10476 to the west. There are no contemporary surveys to the north and to the east.

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41. BOUNDARIES

The location of the SEEKONK-REHOBOTH boundary line was determined by computing the approximate azimuth between REHOBOTH-SEEKONK-SWANSEA COR., 1890 and SEEKONK-REHOBOTH COR.-ATTLEBORO LINESTONE, 1889.

A similar computation was required between REHOBOTH CORNER 1, 1890 and REHOBOTH CORNER 10, 1890 to plot the boundary line between REHOBOTH AND SWANSEA townships.

The Mass-R.I. state line was plotted from state line monuments identified by field inspection.

42 thru 45 - Inapplicable.

46. COMPARISON WITH EXISTING MAPS

U.S.G.S. East Providence, Mass.-R.I. quadrangle, scale 1:31680, edition of 1941, reprinted 1951.

Chart No. 353, Narragansett Bay, scale 1:40,000, edition of March 1958, corrected to 3/22/58.

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

Respectfully submitted
24 November 1959

R. Glaser

R. Glaser
Carto. (Photo.)

Approved and forwarded

William E. Randall

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

FORM 182
(6-12-56)

11-24-57

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

50-

PHOTOGRAMMETRIC OFFICE REVIEW

T- 10477

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) X 7. Photo hydro stations ✓ 8. Bench marks X 9. Plotting of sextant fixes X 10. Photogrammetric plot report ✓ 11. Detail points ✓

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline ✓ 13. Low-water line X 14. Rocks, shoals, etc. X 15. Bridges ✓ 16. Aids to navigation X 17. Landmarks X 18. Other alongshore physical features ✓ 19. Other alongshore cultural features ✓

PHYSICAL FEATURES

20. Water features ✓ 21. Natural ground cover ✓ 22. Planetable contours X 23. Stereoscopic instrument contours X 24. Contours in general X 25. Spot elevations X 26. Other physical features ✓

CULTURAL FEATURES

27. Roads ✓ 28. Buildings ✓ 29. Railroads X 30. Other cultural features ✓

BOUNDARIES

31. Boundary lines ✓ 32. Public land lines X

MISCELLANEOUS

33. Geographic names ✓ 34. Junctions ✓ 35. Legibility of the manuscript ✓ 36. Discrepancy overlay X 37. Descriptive Report ✓ 38. Field inspection photographs ✓ 39. Forms ✓

40. R. Glaser (Reviewer) — Henry P. Eichert (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.

Compiler ______ Supervisor ______

43. Remarks:

COMM-DC 34529

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:

S. G. Blankenbaker
S. G. Blankenbaker

Approved by:

Chief, Photogrammetric Branch

Chief, Photogrammetry Division

JAN 30 1968

Chief, Marine Chart Division 2/13/68

1-9-68

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-163 (Rhode Island)

T-10477

Barrington
Birch Swamp Corner
Clear Run Brook
Devils Rock
Health Brook
Hundred Acre Cove
~~Mararets Rock~~ Margarets Rock-N.P.
New Meadow Neck
North Swansea
Oak Swamp Stream
Palmer River
Rehoboth
Rocky Run
Seekonk
Shoe Factory Pond
Swansea
The Tongue
Torrey Creek
Warren
Warren River

Approved by:

A. Joseph Wraight

A. Joseph Wraight
Chief Geographer

Prepared by:

Frank W. Pickett

Frank W. Pickett
Cartographic Technician

REPORT TO ACCOMPANY CRONAFLEX PRINT
OF SURVEY T-10477, PROJECT PH-163

The map manuscript was compared with copies of Graphic Control sheet Ph-1-56-D N/2, scale 1:10,000, projects 13870 and 25120. Those photo-hydro stations that agree within 0.5 mm were removed from the map manuscript. The following is a list of photo-hydro stations, indicating how far and in what direction the photogrammetric position falls from the common point on the graphic control sheet. All photo-hydro stations that fall within the limits of this survey were identified in the stereoscopic models.

STATION NAME	PHOTOGRAMMETRIC POSITION	
AHA	0.8 mm	N
EAT	1.4 mm	S
FIG	0.8 mm	NNW
GOB	0.8 mm	NW
IVY	2.3 mm	N
RUB	0.9 mm	ESE
SAM	0.6 mm	W

It is recommended that the photo-hydro stations plotted on the map manuscript be used in making the smooth sheets.

Respectfully submitted
5 September 1958

Leroy A. Senasack
Carto. Photo. Aid

Approved and Forwarded

William F. Deane

[redacted]

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-10477

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.

CHART	DATE	CARTOGRAPHER	Part ~ REMARKS
278	8-14-69	Oscar Chapman	~~Full Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 25 No. Corr
353	12-16-70	H. Danley	~~Full~~ Part ~~Before~~ After Verification Review Inspection Signed Via
			Drawing No.
278	2-16-73	W. Chandler	Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
353	6-18-73	W. Chandler	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

[redacted]