

8207

Diag. Cht. No. 1210-3

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey ..... HYDROGRAPHIC

Field No. **Gi-1255** ..... Office No. **H-8207**

LOCALITY

State ..... MASSACHUSETTS

General locality ..... TAUNTON RIVER

Locality ..... FALL RIVER HARBOR

19.55.....

CHIEF OF PARTY

R.A. MARSHALL

LIBRARY & ARCHIVES

APR 11 1956

DATE .....

82070

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-8207

Field No. Gi-1255

State MASSACHUSETTS

General locality TAUNTON RIVER

Locality FALL RIVER HARBOR

Scale 1:10,000 Date of survey 22 Oct. to 16 Dec. 1955

Instructions dated 10 Aug. 1955

Vessel SHIP GILBERT

Chief of party R.A. MARSHALL

Surveyed by R.A. MARSHALL, E.W. RICHARDS & O.L. DOSTER

Faths. scaled by Ship Personnel Faths. checked by Ship Personnel

Soundings taken by SONOGRAPHIC, graphic recorder, hand lead, W.F.

Protracted by W.W. Feazel & A.G. Atwill

Soundings penciled by A.G. Atwill

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~ and are true depths

REMARKS: This survey was smooth plotted in the Hydrographic Section of the Norfolk District Office.

*J.H.C.*

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY

Field Nos. GI 1255 & GI .25/155  
Registry Nos. H-8207 & H-8208

PROJECT 1383

Vicinity of Taunton River  
Fall River Harbor, Mass.

28 October 1955 to 16 December 1955

Commander Robert A. Marshall

Commanding Ship GILBERT

(1.)

# Boat Fleet on Aluminum<sup>2</sup>

## A. PROJECT

Instructions for project 1383, file No. 22/MEK S-2-GI, dated 10 August 1955 authorize the re-survey of Fall River Harbor.

## B. SURVEY LIMITS AND DATES

This survey includes all of the Taunton River and Mt. Hope Bay east of longitude 71 ~~13.8~~ W and south of latitude 41 44.1 N, except that portion west of Brayton Point and north of latitude 41 42.4 N. Survey GI.25/155 encompasses the immediate area around the State Pier outward to the dredged channel (Lat. 41 42' 13"N to 41 42' 26"N and Long. 71 10' 05"W to 71 09 44"W ).

Hydrography for sheets <sup>H-8207</sup> GI 1255 and <sup>H-8207</sup> GI.25/155 was conducted between 22 November 1955 to 13 December 1955 and 13 December 1955 to 16 December 1955 respectively. *insert on present survey*

Junction on the north was made with a 1/10,000 survey No. 7939 dated October-November 1951. <sup>PR 182</sup> Contemporary surveys No. 792a (1/20,000) dated 1861 and No. 792b (1/10,000) dated 1861 cover the areas surveyed.

Progress of the work was delayed by cold weather and ice conditions on the river. Severe damage was sustained to the launch by ice. Equipment, including the launch engine and fathometer, operated with difficulty due to low temperatures ranging between 13 and 32 degrees (F).

## C. VESSEL AND EQUIPMENT

The entire survey except the tag-line survey was conducted with launch 175 operating from the Ship GILBERT which was moored at the U.S. Naval Reserve Training Center, Fall River, Mass. The launch was not equipped with a tachometer and therefore it was necessary to govern the sounding speeds by throttle settings. No heat exchanger system was installed on the motor's cooling system and therefore there was no means of protecting the block with antifreeze for sub-freezing temperatures. It may be that the block was cracked and a new motor required.

The Edo fathometer No. 204 was used during the first part of the survey with the transducer rigged over the side. On 13 December the stylus assembly broke and no replacements were available. Subsequent soundings were taken with the 808 No. 161 spx, using transducers inside the hull and alongside the keel.



Good soundings were obtained throughout the range of depths used (0' to 57') on both fathometers with the following exception. Using the Edo in depths of less than 4 feet, a record was obtained that might be in error by 1 to 3 feet, depending on the operator's interpretation. Such was the case on 105c day (Sheet GI-1255) and verified on 126 g day. (See fathometer report for further discussion).

*Critical depths checked on fathograms and corrected in sdg. records where in error.*

#### D. TIDE AND CURRENT STATION

No current stations were observed. A tide station employing a portable gage was installed at the State Pier, Fall River, Mass. and operated through out the dates of this survey. MLW on the staff was not available in the field at the time the records were turned over to the processing office, and therefore, no reducers have been entered. Predicted tides were used for reducing the soundings on the boat sheets. *Tide reducers computed and entered in sounding volumes.*

#### E. SMOOTH SHEET

<sup>was</sup>  
~~To be~~ compiled by the Norfolk Processing Office.

#### F. CONTROL STATIONS

##### Triangulation used:

1887  
1897  
1932  
1934 (MGS)  
1955

##### Chief of Party

G.B.  
  
R.A.M.

##### Topography used:

Shoreline from Chart 350  
State Pier GI-A-55

R.A.M.

##### Hydrographic Stations used:

1955 Graphic Triangulation  
Sextant cuts recorded in  
sounding volumes.

R.A.M.  
  
R.A.M.

The 1955 triangulation was performed to re-establish 1934 triangulation which had been destroyed by construction and storms. Due to bridge structures, buildings, docks, and the like, several stations were observed eccentrically. Eccentric reductions were computed for the main scheme stations but not for the graphic cuts for hydrographic locations. Therefore, it will be necessary to plot the eccentric stations in order to plot the hydro cuts.

Station Dog appears to be in error, or atleast a weak location, and therefore cuts from this station should be plotted with discretion. Sextant cuts were taken at the location of Montaup<sub>2</sub> 1934 (MGS) to supplement station Dog.

A traverse was carried out at the State Pier, employing measured distances and theodolite angles to obtain topographic control for Sheet GI .25/155. A separate report covers this phase of the survey.

Closures in some triangles were large due to short lines about three to five hundred meters long, however, the side checks were good. A different type of target would be necessary to improve the closures. Directions to reference mark at station Naval 1955 appear to be incorrect after making an extremely large reduction and have been omitted from the list.

G. SHORELINE AND TOPOGRAPHY

Shoreline was from Chart 350. Topography for the State Pier is covered in a separate report. *which is part of this Descrip't Rpt.*

H. SOUNDINGS

Soundings were taken with Edo No. 204 and 808 No. 161 spx. No special corrections were necessary. Velocity corrections were computed from the daily bar check data discussed in the fathometer report.

I. CONTROL OF HYDROGRAPHY

The usual methods of plotting two sextant angles with a three arm protractor were used for visual control. Ranges were set up on the dock to aid the coxswain in running the sounding lines normal to the State Pier. Strong currents made hydrography difficult when running across channel.

J. ADEQUACY OF SURVEY

The survey is considered complete. Weather conditions, ice on the river, and the return trip to Norfolk made it necessary to bring the survey to an end before all desired splits and development was completed. The junction with Survey No. 7939 *survey adequate*

was adequate.

#### K. CROSSLINES

Crosslines run amount to about 10% and are in good agreement with the rest of the survey.

#### L. COMPARISON WITH PRIOR SURVEYS

Prior surveys are so old as to make a comparison impractical. Shoreline changes due to storm damage and construction along with extensive dredging operations create drastic changes throughout the area.

PS  
Review

A tracing of U. S. C. of Engrs. channel survey<sup>of May 1955</sup> has been made at a 1:10,000 scale and will be furnished to the processing office for further study after all sounding have been reduced. The channel limits are approximately as indicated but in general their depths are deeper by an average of 1 to 2 feet than those plotted on the boat sheet. The final reduced sounding may correct this discrepancy. (Ops 52718-21 incl.)

Noted. Cause  
not deter-  
mined

#### M. COMPARISON WITH CHART

In general, few differences were noted between Chart 350 and the boat sheet except as noted in Section N & O of this report.

#### N. DANGER AND SHOALS

Shoal soundings of <sup>6</sup>7' were found 250 meter WSW of Borden Flats Lighthouse and the depths were verified by crosslines. About an hour was spent trying to get a hand lead on this shoal or rock without success due to adverse wind and current conditions.

A shoal sounding of 8' was found about 10 meters off the NE face of the State Pier in 16' of water and about 40 meters from the NE corner. Subsequent crossings gave no indications but the hydrographer feels that it might possibly be a broken-off pile. This area is all to be dredged according to local information, in the Spring of 1956.

stray. Plotted  
17ft.

#### O. COAST PILOT INFORMATION

The church spire charted on Brayton Point should be deleted. The spire has been destroyed but the building still exists and is now used as a barn. Two silos are now in the same general area and the tallest one has been located as signal Obi (See form 567)

Radio station WALE has a radio antenna mast located near the Fall River City Hall and is prominent in all the Fall River Harbor area. (See form 567) A drive-in movie screen has been constructed in Somerset and can be picked up visually by the mariner as far

south as the Mt. Hope Bridge. (see form 567)

One wreck was located in Lat. 41 43.12' N and Long. 71. 09.50' It is out of the main channel traffic but constitutes a danger to navigation in the immediate vicinity.

TP6 of  
- Review

The currents in the main channel are dangerous to the main shipping. Most movement of large vessels is done at or near slack water. The weather during the period of survey was extremely cold but generally clear. Snow occurred on three different occasions and made launch work hazardous due to slippery conditions in the cockpit. When the wind was strong enough to throw spray (force 3-4) on the launch, visibility was hampered by ice formation on the windshield. The month of November was generally suitable for hydrographic operations but December imposed a hardship on personnel and equipment. In December, ice formed on the river during periods of calm cold weather, especially around the docks and piers.

P. AIDS TO NAVIGATION

Fixed aids to Navigation

Borden Flats Light

Lat. 41 42' 15.619" N  
Long. 71 10' 29.661" W

Floating Aid to Navigation

See Processing  
Office List

Description	Lat. N	Long. W	Depth	Day	Date
Channel Buoy 11 Black 1st cl. can	41 41' 988.5m	71 11' 804.0m	28	5e	12/2/55
Channel Lighted Bell Buoy 10 (Fl. R., 4s) Red Bell	41 41' 1198.0m	71 11' 346.0m	28	4e	"
Channel Buoy 12 Red 1st. cl. nun	41 41' 1567.5m	71 10' 1251.0m	37	3e	"
Channel Buoy 13 Black 1st. cl. can	41 42' 0.0m	71 10' 1045.5m	30	2e	"
Channel Buoy 14 Red 1st cl. nun	41 42' 893.5m	71 09' 992.4m	16	60g	12/7/55
Channel Buoy 15 Black 1st. cl. can	41 42' 831.5m	71 09' 1323.0m	30	1e	12/2/55
Channel Buoy 17 Black 1st cl. can	41 42' 1264.0m	71 09' 1136.0m	38	35f	12/6/55
Buoy 1A Black 1st. cl. can	41 43' 1142.5m	71 09 209.0m	101c		12/30/55

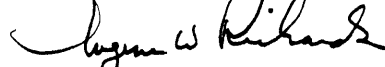
Q. LANDMARKS FOR CHARTS

(See Form 567)

R. GEOGRAPHIC NAMES

No changes or additions to Chart 350 are deemed necessary from information gathered during the period of this survey.

Respectfully submitted



Eugene W. Richards  
Lieut., C&GS

*Note: State of Mass. plans to dredge out north side of the State Pier early in 1956.*

*Approved + Forwarded.  
E. A. Marshall  
Comdg Ship Gilbert.*

FLOATING AIDS TO NAVIGATION  
H-8207

<u>BUOY</u>	<u>LONG.</u>	<u>MET.</u>	<u>LONG.</u>	<u>MET.</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
Channel Buoy 11	41-41	998	71-11	814	-	5e(blue) 1a "	12- 2-55 11-22-55
Channel Ltd. Bell Buoy 10	41-41	1206	71-11	363	-	4e "	12- 2-55
Channel Buoy 12	41-41	1563	71-10	1253	-	3e	"
Channel Buoy 13	41-42	0	71-10	1052	-	2e "	"
Channel buoy 14	41-42	888	71-09	990	14.6	60g "	12- 7-55
Channel Buoy 15	41-42	840	71-09	1323	-	1e "	12- 2-55
Channel Buoy 17	41-42	1283	71-09	1148	38.0	35f "	12- 6-55
Buoy 1A	41-43	1146	71-09	196	38.6	101c "	11-30-55
Channel Buoy 9	41-41	376	71-12	50	22.6	122d "	12- 1-55
Channel Ltd. Bell Buoy 8	41-41	227	71-11	1305	-	2a "	11-22-55

STATISTICS  
H-8207

<u>DAY LTR.</u>	<u>VOL. NO.</u>	<u>DATE</u>	<u>NO. POS.</u>	<u>STAT. MI.</u>	<u>H.L. SDGS.</u>
a(blue)	1	11-22-55	91	19.1	-
b "	1	11-23-55	66	13.8	-
c "	1&2	11-30-55	125	14.8	-
d "	2	12- 1-55	158	19.8	-
e "	3	12- 2-55	8	-	-
f "	3	12- 6-55	216	20.1	-
g "	3&4	12- 7-55	130	19.0	-
h "	4	12-12-55	75	10.6	-
j "	4	12-13-55	45	3.0	-
a(red)	5	10-31-55	docks	-	49
b "	5	11- 1-55	"	-	86
c "	5	11- 2-55	"	-	93
d "	5	11- 3-55	"	-	77
e "	5	12- 8-55	"	-	166
f "	5	12- 9-55	"	-	149
a(purple)	6	12-13-55	100	7.36	-
b "	6	12-14-55	6	0.29	-
c "	6	12-15-55	43	4.37	-
d "	6	12-16-55	49	4.49	-
<b>TOTALS</b>			1112	136.7	620

PROCESSING OFFICE  
LIST OF SIGNALS

H-8207

TRIANGULATION STATIONS

ATE	STATE, 1955
DAV	DAVOL, 1955
DEN	BORDEN FLATS L.H., 1897-1955
DIO	RADIO, 1955
EAS	EAST BRIGHTMAN, 1934-55
	FALL RIVER CITY HALL, 1934-55
	FALL RIVER, TIVERTON NO. 1, 1934-55
LAC	BLACK TANK, 1932
NAV	NAVAL, 1955
POW	POWER, 1955
RAY	BRAYTON, 1934-55
RIN	MARINE, 1955
SHE	SHELL, 1934-55
SLIP	SLIP, 1934-55
SPIRE	FALL RIVER, HIGH SCHOOL TOWER, 1887-1955
	ST. MATHIEU, 1934-55
WIL	WILBUR, 1955

Note: Approx. position of MONTAUP 2, 1934, was plotted on the sheet temporarily. It was used to cut in other stations.

MARKED TOPOGRAPHIC STATIONS

Lava	Lava, 1955
Lost	Lost, 1955

TOPOGRAPHIC STATIONS (ON INSERT)

SOURCE Gi-A-55

Gal	Gee	Hat	Her	Hip	His	Ida	Key	Lax	Ned	Not
Sic	Sox	Tim	Tip	Toy	Tub	Vex	Who	Why		

TOPOGRAPHIC STATIONS (H-8207)

SOURCE: REPLOTED FROM CUTS IN LIST OF DIRECTIONS

Abe	Ace	Act	Bag	Bat	Bed	Cab	Cam	Car	Daw	Day	Deb
Ear	Eat	Ebb	Far	Fat	Fed	Gad	Gag	Gal	Hat	Hog	Ice
Jap	Jar	Jay	Ked	Ken	Key	Lad	Lam	Lax	Lid	Mag	Mal
Mar	Nat	Nay	Ned	Oak	Obi	Odd	Pad	Pal	Pod	Quo	Rag
Ram	Rat	Sad	Sag	Sal	Tan	Tap	Tax	Tom	Use	Val	Van
Wad	Wag	Wale	Wit	Yak	Yam	Zag	Zig				



ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8207 (Field No, Gi-1255)

GENERAL

This appears to be an excellent field survey except for the minor discrepancies listed below.

CONTROL

All topographic stations were replotted directly on the smooth sheet from theodolite cuts shown on the List Of Directions. Excellent closures were obtained on all control points.

Due to the press of field work, all 1955 triangulation stations were plotted on the boat sheet with a three arm protractor before the computations were completed. This resulted in some slight differences in the locations of topographic stations from those on the smooth sheet.

All topographic stations shown on the insert for State Pier were transferred directly from Gi-A-55. (<sup>insert</sup> H-8207)

SHORELINE

The shoreline was transferred from the boat sheet and left in pencil for possible changes by the Washington Office.

OVERLAYS

Soundings around State Pier and in the adjoining slip are being submitted on an overlay, which is attached to this Descript. Rpt.

DISCREPANCIES

Line 34 to 35a (purple) on insert, was not smooth plotted. The line appears to be displaced. *N.P. area adequately developed.*

Line 81 to 82g (blue) was not smooth plotted. Soundings were in disagreement with surrounding hydrography.

Volume 5, pages 39 to 43. <sup>only</sup> Soundings ~~were not smooth plotted~~ *between ships AD and DD on W. side of pier* *were plotted to fill holiday.* ~~around ships.~~ Fixes were weak and data insufficient.

Continued

Soundings in slip on overlay, do not check hydrography on lines 81 to 85a (purple). *minor differences of 1 ft. noted. Shoalest sdgs. plotted.*

The 8' sounding, mentioned in the body of the descriptive report between positions 28 and 29a (purple), was not smooth plotted as it has the appearance of a stray. *Plotted as 17 ft.*

Respectfully submitted,

*Hugh L. Proffitt*  
Hugh L. Proffitt  
Cartographer

Norfolk, Va.  
6 April 1956

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

NONFLUORESCENT AIDING AIDS OR LANDMARK FOR CHARTS

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

STRIKE OUT ONE

Ship Gilbert

10 January, 1954

I recommend that the following objects which have *(have not)* 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 O. L. Doster

R. A. Marshall

Chief of Port

STATE	Fall River, Massachusetts	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				DATUM	METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHART AFFECT.
					LATITUDE	D. M. METERS	LONGITUDE	D. P. METERS							
		Screen	Drive-In Movie	Tax	41 43	1295.5	71 10	34.5	N.A.	Tri	12/55	X			350'
		Silo	(Highest Silo)	Obi	41 42	1424.5	71 11	700.5	N.A.	Tri	12/55	X			350'
		Mast	Radio Station WALE	Wale	41 42	1597.1	71 09	(837.8)	N.A.	Tri	12/55	X			350'
						254.0		549.5	1927	GI-1255					

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.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

~~TO BE CHARTED~~ } STRIKE OUT ONE  
TO BE DELETED }

Ship Gilbert \_\_\_\_\_ 10 January, 1954

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

The positions given have been checked after listing by O. L. Doster \_\_\_\_\_

Robert A. Marshall \_\_\_\_\_  
Chief of Port

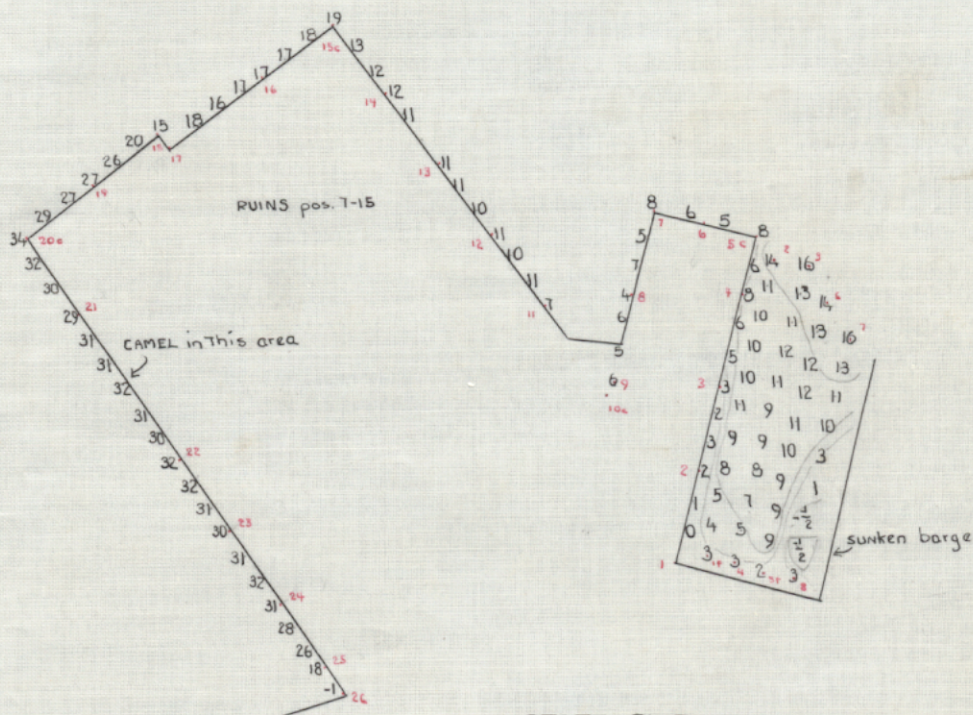
STATE			POSITION					METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHART AFFECT
Fall River, Massachusetts			LATITUDE		LONGITUDE		DATUM						
CHARTING NAME	DESCRIPTION	SIGNAL NAME	° ' "	D. M. METERS	° ' "	D. P. METERS							
Spire	Church Spire		41 42	(449.1) 1402.0	71 11	(692.1) 695.0	N.A. 1927			X			353 350

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.



OVERLAY FOR  
G1 25/155

42'20"



STATE PIER  
# 20

soundings from Vol. 5  
around pier - pgs. 36-37  
in slip - pgs. 50-51

*cht. 353 - no correction*

41° 42' 10"  
71° 10' 00"

09' 50"

09' 40"



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. (GI-A-55) H-8207

REGISTER NO.

State Massachusetts

General locality Taunton River

Locality State Pier, Fall River

Scale 1:2500 Date of survey December 2, 1955

Vessel Ship Gilbert

Chief of party R. A. Marshall

Surveyed by O. L. Doster

Inked by \_\_\_\_\_

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated 10 August, 1955

Remarks: Sheet used to run hydrography to expedite completion before  
freeze-up.

G P O

*Plotted on H-8207(1955) as enlarged insert.*

*CV EWR*

GEOGRAPHIC NAMES

Survey No. H-8207

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List			
<u>Massachusetts</u>				} for title						BNY	1
<u>Fall River Harbor</u>										2	
<u>Mt Hope Bay</u>										3	
<u>Taunton River</u>										4	
<u>Brayton Point</u>										5	
<u>Borden Flats</u>				(see 350 for placement)					BNY	6	
<u>Globe Wharf</u>										7	
<u>State Pier</u>				(tide station)							8
<u>City Pier</u>										9	
<u>Fall River</u>				(city)					BNY	10	
<u>Breeds Cove</u>										11	
										12	
				Names approved							13
				4-16-56. K. Heck							14
				(all names listed are							15
				on chart 350)							16
										17	
										18	
										19	
										20	
										21	
										22	
										23	
										24	
										25	
										26	
										27	

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8207....

Records accompanying survey:

Boat sheets ..1...; sounding vols. ..6...; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls 6-Envelopes  
 special reports, etc. 1-Descriptive report, 1-Smooth sheet, 1-Envelope,  
 Velocity corr. report: Tide data & List of Directions, & 1-Overlay tracing.

The following statistics will be submitted with the cartographer's report on the sheet:

	B.V.	
Number of positions on sheet	1112	
Number of positions checked	47	46
Number of positions revised	11	-
Number of soundings revised (refers to depth only)	10	23
Number of soundings erroneously spaced	0	-
Number of signals erroneously plotted or transferred	0	-
Topographic details	Time	0
Junctions	Time	6
Verification of soundings from graphic record	Time	6
Pre-Verification by - I. M. ZESKIND	110	5-4-56
Verification by ... Stephanos ..... Total time	120	Date 5-10-58
inked Shoreline		
Reviewed by. J. Jeske	Time 48	Date 5-14-56
Addendum to Review - H. Headon Radda	84	10-22-63



The work on this sheet was accomplished in accordance with instructions dated 10 August 1955.

(a) CHARACTER OF CONTROL USED:

A closed traverse was run between points A,B,C,D,&A as shown on the sketch. (sketch is attached to the record book) The other spur points shown on the sketch were tied into the main points. All distances were measured using a three hundred foot steel tape. The angles were turned off using a Parkhurst theodolite. In addition all the angles were checked (roughly) by sextant angles. The closing error was negligible in angular measurement and zero in distance.

Point "A" the starting point of the traverse was triangulation station "State (1955)". The initial was Borden Flats Lighthouse (1897).

The survey was plotted up aboard ship using a three (3) arm steel protractor to lay off the angles with meter bar and dividers for distances.

The line of sight on the south and west sides of the pier were partially blocked by a destroyer tender and three destroyers respectively. Therefore it was necessary to supplement the theodolite cuts with sextant angles in a few instances. These vessels also prevented resection at various points along the traverse.

(b) FUTURE IMPROVEMENTS:

The state of Massachusetts has a project underway to rebuild the north side of the pier also to extend the pier line eastward by extensive dredging.

Respectively Submitted,

*Oscar L. Doster*  
Oscar L. Doster, Ens.

Approved and Forwarded

*Robert A. Marshall*

Robert A. Marshall, Commanding Ship Gilbert  
Chief of Party

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO . H-8207

FIELD NO. GI-1255

Massachusetts, Taunton River, Fall River Harbor

Project No. CS-1383

Surveyed - Oct. - Dec., 1955

Scale 1:10,000

Soundings:

Control:

808 Fathometer

Sextant fixes on  
shore signals

EDO Fathometer

Chief of Party - R. A. Marshall

Surveyed by - R. A. Marshall, E. W. Richards and O. L. Doster

Protracted by - W. W. Feazel and A. G. Atwill

Soundings plotted by - A. G. Atwill

Preliminary verification by - I. M. Zeskind

Verified and inked by - *G. Stephanos*

Reviewed by - I. M. Zeskind 5-14-56

Inspected by - R. H. Carstens

1. Shoreline and Control

*(inked during verification)*

The penciled shoreline originates with Chart 350 dated 6-20-55. The revisions in red are from the present survey. The piling and rocks awash have been carried forward from T-5750 (1944), except for the piling in lat.  $41^{\circ}42.12'$ , long.  $71^{\circ}10.18'$ , which originates with an air-photograph of May 1956.

The source of the control is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

The bottom is generally smooth in the western portion of the survey north of the channel and fairly irregular elsewhere. Submarine features such as shoals and deeps contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

An adequate junction was effected with H-7939 (1951) on the northeast. There are differences of 1 - 2 ft. with the U. S. Corps of Engineers Channel surveys of May, 1955 (Bps. 52718 to 52721 incl.). The present survey extends to the limits of the Project on the west where minor differences of as much as 2 ft. between the charted and present survey depths are noted. *Joins H-8396(1957) of Proj. 13870. See Addendum*

5. Comparison with Prior Surveys

Misc. No. 20 (1832), 1:24,000  
 H-792 a (1861), 1:20,000  
H-792 b (1861), 1:10,000

A comparison between these early reconnaissance surveys and the present survey reveals changes in bottom configuration and shoreline. These changes were caused by the action of the current on the bottom, the construction and alteration of piers, reclaiming of land and dredging operations. Changes in depths of as much as 10 ft. between the prior and present surveys are noted, as for example in lat.  $41^{\circ}42.67'$ , long.  $71^{\circ}10.12'$ , where a prior depth of 24 ft. falls in present depths of 14 - 15 ft.

The present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 350 (latest print date 6-20-55)A. Hydrography

The charted hydrography originates principally with the U. S. Corps of Engineers surveys subsequent to 1941, with the Public Works of Mass. survey of 1949-51 (Bp. 52273), with the previously discussed prior surveys which need no further consideration, and with a few soundings from the present survey prior to verification and review. The following differences between the charted features and the present survey are noted:

(1) The 13-ft. sounding in lat.  $41^{\circ}41.38'$ , long.  $71^{\circ}11.31'$ , originates with a sounding at the end of a pier on U. S. Corps of Engineers survey of 1944 (Bp. 39024). The charted sounding falls between the face of the pier and the first line of soundings in front of the pier on the present survey where depths of 19 ft. are found. The 13-ft. sounding is not considered disproved by the present survey and should be retained on the chart.

(2) The 14-ft sounding in lat.  $41^{\circ}41.31'$ , long.  $71^{\circ}11.35'$ , originates with a sounding at the offshore end of a pier on U. S. Corps of Engineers survey of 1944 (Bp. 39024). Because no soundings were obtained on the present survey along the end of the pier, where nearby present depths of 18 ft. are found, the 14-ft. sounding is not considered disproved and should, therefore, be retained on the chart.

(3) A wreck located on the present survey in lat.  $41^{\circ}43.12'$ , long.  $71^{\circ}09.53'$ , is not charted.\* The hydrographer states that the wreck is out of the main channel traffic but constitutes a danger to navigation in the immediate vicinity of the wreck.

\* As charted on 353

(4) The following rocks awash located on the present survey are not charted:

<u>Quantity</u>	<u>Latitude</u>	<u>Location</u>	<u>Longitude</u>
2	$41^{\circ}43.38'$		$71^{\circ}09.57'$ <i>on 353</i>
1	$41^{\circ}42.27'$		$71^{\circ}10.50'$ <i>observed by light report on 353</i>

(5) The following soundings which were charted from the boat sheet of the present survey were revised to greater depths during verification and review of the present survey:

<u>Charted depth (feet)</u>	<u>Location</u>		<u>Revised depth (feet)</u>
	<u>Latitude</u>	<u>Longitude</u>	
13	$41^{\circ}41.86'$	$71^{\circ}10.82'$	14
18 (insert)	$41^{\circ}42.36'$	$71^{\circ}09.90'$	21
31 (insert)	$41^{\circ}42.29'$	$71^{\circ}09.95'$	34

(6) The charted note "shoaling reported" in lat.  $41^{\circ}42.2'$ , long.  $71^{\circ}10.5'$ , from Chart Letter 564 (1949) should be deleted from the chart. The present survey shows no indication of shoaling in this area.

(7) The 20-ft. sounding charted as a critical depth in lat.  $41^{\circ}43.22'$ , long.  $71^{\circ}09.51'$ , from the boat sheet of the present survey, should be deleted from the chart. The location of the sounding was revised 45 meters northeastward during verification and review of the present survey.

The present survey is adequate to supersede the charted hydrography within the common area.

B. Dredged Channel

The present survey depths in the dredged channels in Taunton River are in harmony with the charted controlling depths of  $28\frac{1}{2}$  ft. (Chart Letter 212, 1951), 35 ft. Chart Letter 435, 1951), and 34 ft. (Project Maps of the Corps of Engineers, 1954.)

C. Aids to Navigation

The present survey positions of aids to Navigation are in substantial agreement with the charted positions and adequately mark the features intended.

7. Condition of Survey

(a) The survey has been given only a preliminary verification. A complete statement covering the condition of the survey will be made after the survey has been completely verified.

(b) The Descriptive Report is complete and comprehensive.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

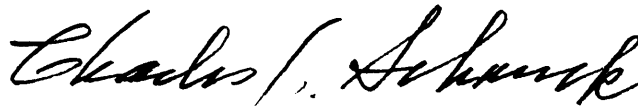
9. Additional Field Work Recommended

The survey is considered basic and no additional field work is recommended.

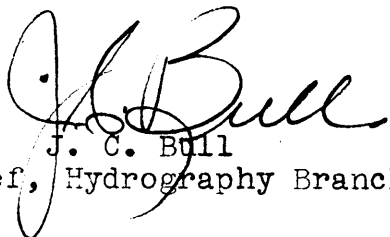
Examined and Approved:



H. R. Edmonston  
Chief, Nautical Chart Branch



Charles A. Schanck  
Acting Chief, Chart Division



J. C. Bull  
Chief, Hydrography Branch



S. B. Grenell  
~~Earl O. Heaton~~  
Chief, Division of Coastal Surveys

ADDENDUM TO REVIEW  
H-8207 (1955)

Verification and inking completed by-----G. Stephanos 1963  
Review addendum by-----H. Radden 10-22-1963  
Inspected by-----I. M. Zeskind 1963

The verification of this survey has been completed. Soundings and depth curves have been completely inked.

1. Junctions with Contemporary Survey

An adequate junction was effected with H-8396 (1957) on the west. This completes the junctions with the present survey.

2. Comparison with Chart 350 (Latest print date 12/25/61)

The charted hydrography originates principally with the present survey after preliminary verification and review, supplemented by information from the U. S. Corps of Engineers surveys of 1944 (Bp 39024) and 1960 (Bps. 60021-22), the Department of Public Works of Massachusetts Survey of 1957 (Bp. 58399), photogrammetric surveys T-10484 and T-10485 of 1956 and Chart Letter 317 (1958).

The charted shoreline originates with the shoreline as shown on chart no. 350, dated 6/20/55, revised by portions of shoreline determined during the present survey, and subsequently supplemented by additions or revisions from photogrammetric survey T-10484 and T-10485 of 1956 and the Department of Public Works of Massachusetts Survey of 1957 (Bp. 58399).

- a. The 7-ft. sounding charted in lat.  $41^{\circ}43.41'$ , long.  $71^{\circ}09.48'$  originates with the boat sheet of the present survey where it was plotted out of position. The sounding actually falls about 30 meters to the westward.
- b. The rock awash PD charted in lat.  $41^{\circ}43.49'$ , long.  $71^{\circ}09.40'$  from the present survey, originates with an ambiguous note in the sounding volumes of the present survey. The rock awash is adequately charted
- c. The 7 charted in lat.  $41^{\circ}42.37'$  long.  $71^{\circ}11.57'$  and the 11 charted 120 meters to the northward from the present survey after preliminary verification and review were revised 30 meters in position during this review.

Except as noted, the depths charted from the present survey after preliminary verification and review are in ade-

quate agreement with inked soundings on the present survey.

3. Condition of Survey

Completion of the verification reveals that the smooth plotting was well done.

Approved:



Lorne G. Taylor  
Chief, Nautical  
Chart Division

## SHEET .25/155

STATION	ORIGIN
<u>DAVOL</u>	1955 Tri.
<u>STATE</u>	"
<u>RADIO</u>	"
<u>BORDEN</u> FLATS LIGHTHOUSE	1897 Tri.
FALL RIVER HIGH SCHOOL, TOWER	1887 Tri.
FALL RIVER CITY HALL (MGS)	1934 Tri.
Gal (Signal cloth on piling)	1955 Tri.
Gee (End post of Fence)	GI-A-55
Hat (Corner of sea wall)	GI-A-55
Her (Inside corner of pier)	"
Hip (Inside corner of slip)	"
His (Corner of pier)	"
Ida (Signal cloth on fence)	"
Key (Signal cloth on piling)	"
Lax (Whitewashed piling)	"
Ned ("L" of CALSO sign on tank)	1955 Tri & Vol. 1
Not (Corner of building)	GI-A-55
Sic (Corner of sea wall)	"
Sox (Corner of Rock pier)	"
Tim (Corner of pier)	"
Tip (Corner of pier)	"
Toy (Corner of warehouse)	"
Tub (Corner of warehouse)	"
Vex (Inside corner of slip)	"
Who (Corner of warehouse)	2
Why (Signal cloth on piling)	"



RHC

### TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys:~~

13 April 1956

Division of Charts: R. H. Carstens

Plane of reference approved in  
6 volumes of sounding records for

HYDROGRAPHIC SHEET 8207

Locality Fall River, Massachusetts

Chief of Party: R. A. Marshall in 1955  
Plane of reference is mean low water, reading  
2.2 ft. on tide staff at Fall River (State Pier)  
13.2 ft. below B. M. 1 (1955)

Height of mean high water above plane of reference is 4.4 feet

NOTE: Tide reducers for the positions listed below have been revised in red and verified.

<u>Vol.</u>	<u>Positions</u>
2	9d - 104d

Condition of records satisfactory except as noted below:

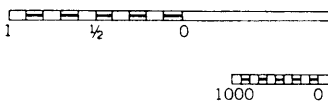
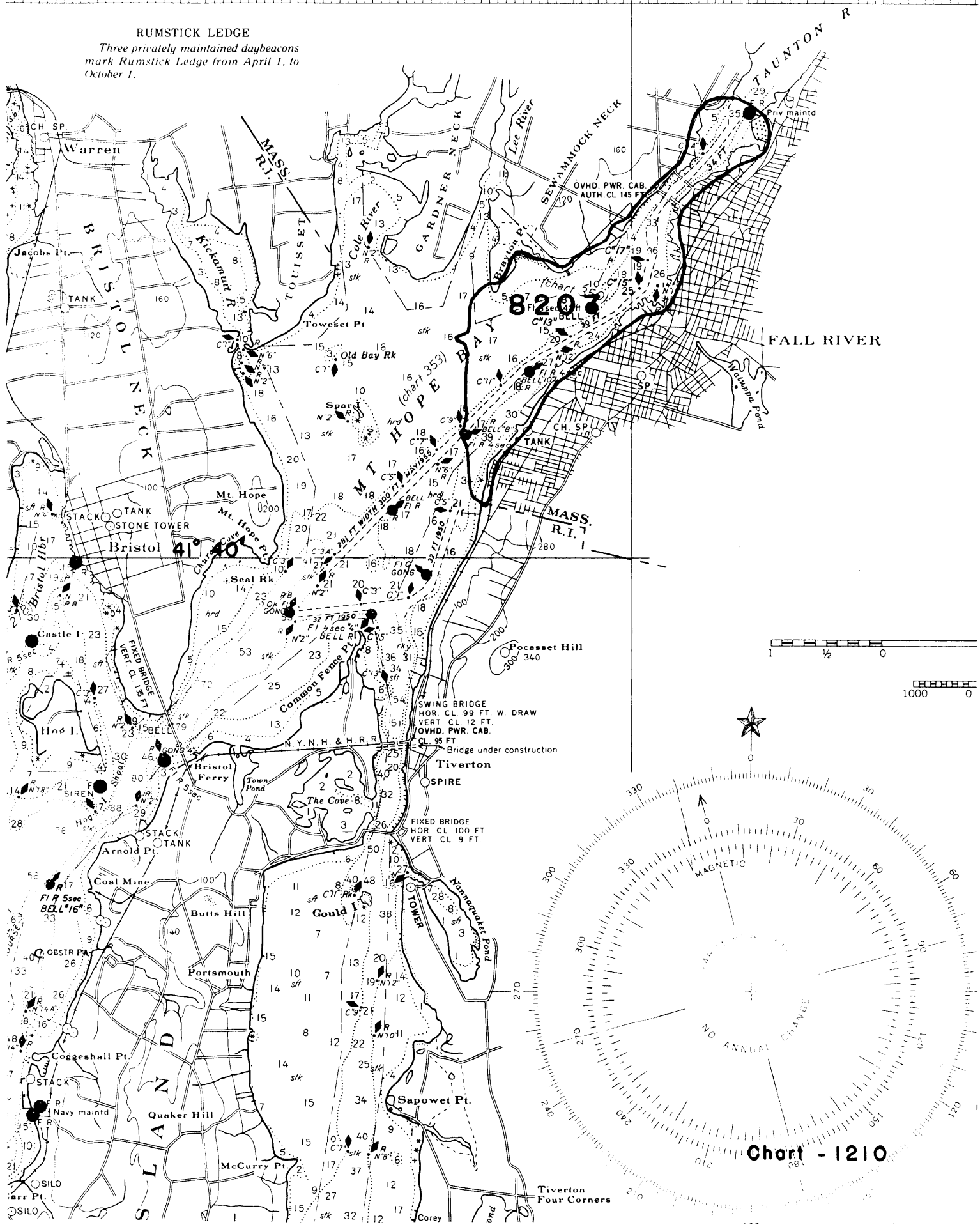
*William Chapus*

Branch  
Chief, ~~Division of~~ Tides and Currents



### RUMSTICK LEDGE

Three privately maintained daybeacons mark Rumstick Ledge from April 1, to October 1.



### Chart - 1210

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-2207

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
1956 20 June	350	Richards	<del>Before</del> <sup>prelim.</sup> After Verification and Review <span style="float: right;">37112</span>
7/16/56	353	J. G. McGinn	<del>Before</del> After Verification and Review
8/17/56	1210	G. F. Gordon	<del>Before</del> <sup>Partially applied.</sup> After Verification and Review thru chrt 353 <sub>&amp; prelim.</sub>
3/13/57	353	C. R. Wittmann	<del>Before</del> <sup>Fully</sup> After <sup>prelim.</sup> Verification and Review thru chrt 350 <span style="float: right;">37112</span>
7/2/57	1210	S.ason.	<del>Before</del> After Verification and Review Completely. (thru chart 353)
12-6-63	350	H. K. Radden	<del>Before</del> After Verification and Review partially applied
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.