

8315

Diag. Cht. No. 1210-3.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECFP-1756 Office No. H-8315

LOCALITY

State Rhode Island

General locality Approaches to Narragan-
sett Bay

Locality East of Point Judith Neck

1956

CHIEF OF PARTY

M. T. Paulson

LIBRARY & ARCHIVES

DATE September 18, 1958

USCOMM-DC 5087

8315

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-8315

Field No. ECCP-1756

State RHODE ISLAND

General locality ^{East} VICINITY OF POINT JUDITH Neck

Locality APPROACHES TO NARRAGANSETT BAY

Scale 1:12,500 Date of survey 26 July to 31 Oct. 1956

Instructions dated 31 January 1956

Vessel EAST COAST FIELD PARTY - LAUNCH CS-82

Chief of party MARVIN T. PAULSON

Surveyed by D.L. CAMPBELL & R.A. LEWIS

Soundings taken by ~~XXXXXX~~ XXXXXX, graphic recorder, hand lead, ~~WXX~~

Fathograms scaled by PARTY PERSONNEL

Fathograms checked by NORFOLK DISTRICT OFFICE

Protracted by W.L. JONNS

Soundings penciled by W.L. JONNS

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

REMARKS: _____

X.W.W. 11/1/91

DESCRIPTIVE REPORT
TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8315, FIELD NO. ECFP-1756
Entrance Narragansett Bay, Rhode Island

PROJECT 13870

12,500
SCALE 1:10,000

EAST COAST FIELD PARTY

1956

MARVIN T. PAULSON, CH. OF PTY.

SURVEYED BY: D.L. Campbell and R.A. Lewis

* * * * *

A. PROJECT

Work on Project 13870 was executed in accordance with Instructions 22/MEK, FP-East Coast dated 31 January 1956.

B. SURVEY LIMITS AND DATES

The area covered by this survey is at the entrance to Narragansett Bay, from about four miles off-shore to the approaches of West Passage. The limits are from a line (lat. $41^{\circ} 21.6N$, long. $71^{\circ} 27.3W$ to lat. $41^{\circ} 25.0$ long. $71^{\circ} 19.5W$ to lat. $41^{\circ} 26.0N$, long. $71^{\circ} 22.9W$) on the south and east to lat. $41^{\circ} 26.5N$ on the north and long. $71^{\circ} 27.3$ on the west.

A shoal investigation (Item No. 11b Preliminary Review) at lat. $41^{\circ} 20.3$, long. $71^{\circ} 28.5$ was made on an insert on this sheet.

Field work on this sheet began 26 July and ended on 31 October 1956.

174 This survey makes junction with survey H-6443, scale 1:40,000 to the south; with survey H-6444, scale 1:40,000 to the east; and with survey H-7640, scale 1:10,000 to the west. Along the northern limit this survey is joined by contemporary survey Field No. ECFP-1856 which was not completed during this field season. 74-8367(1956-57)

Storms and high seas halted field work on this sheet just prior to the close of the field season. Twice during the field season Hurricane reports interrupted field work and the launch was returned to a storm mooring at East Greenwich, Rhode Island.

C. VESSELS AND EQUIPMENT

Launch CS-82 was used for the entire survey based first at Snug Harbor, Point Judith, Rhode Island and then at Wickford, Rhode Island. Launch CS-82 a 30 foot wooden launch has a turning radius of 50 meters at half rudder and standard speed.

The following fathometers were used;

TYPE
EDO "255"
808 J

SERIAL NO.
#202
#77

Both fathometers were used in depths up to about 105 feet.

D. TIDE AND CURRENT STATIONS

A tide station at Monahan Cove Narragansett, Rhode Island, lat. $41^{\circ} 25.35N$, long. $71^{\circ} 27.35W$, was used without time or range correction in reducing soundings. The Monahan Cove tides were available from 7/24/56 to 9/14/56. Where Monahan Cove tidal data was not available, Providence State Pier No. 1 tides were used in accordance with

On smooth sheet tide reducers from Newport were used instead of Providence State Pier - See form 7112

letter 36-11-15b.2 dated 1/29/56.⁷ & 36-380-15b dated 8/16/56.

See Tide Note.

No current stations, within the limits of this survey, were occupied this season.

E. SMOOTH SHEET

^{W/95} The smooth sheet projection, signal transfer and hydrographic plot will be made by the Norfolk Processing Office. This section will be covered by a report from thier office.

F. CONTROL STATIONS

The following triangulation control was used on this survey:

STATION	G.P.	PAGE	VOL.NO.	CH.OF	PTY.
PT. JUDITH LIGHTHOUSE, 1839	41		1	R.I.Geod.S.	
PT. JUDITH TANK, 1940	41		1	P.L.B.	
HAZARD TOWER, 1940	41		1	(U.S.E.)	
NARROW RIVER EAST (USE), 1909	39		1	(U.S.E.)	
SOUTH, 1943	86		1	F.M.	
WHALE ROCK BEACON, 1940	40		1	P.L.B.	
BEAVERTAIL LIGHTHOUSE, 1869	40		1	S.G. McC.	
NEWPORT, DAVIS HOUSE CUPOLA, 1912	139		1	R.I.Geod.S.	

⁽¹⁹⁵⁴⁾ All topographic control was located on photogrammetric manuscripts T-11432 and T-11438 using standard photogrammetric methods. This control was located by Photo Party No.1 based at Providence, Rhode Island.

G. SHORELINE AND TOPOGRAPHY

Shoreline and topographic detail was obtained from photogrammetric manuscripts T-11438 and T-11432, ^{T-11433 & T-11434 of 1954}

There were no changes in shoreline or topographic detail during this survey from that shown on the above mentioned manuscripts.

The low water line was not defined due to steep slopes and rocky shoreline conditions. Lines are run inshore as close as SAFETY PERMITS.

H. SOUNDINGS

All soundings on this sheet were made by fathometers as listed in section G, except for a few detached soundings taken in connection with bottom sampling or shoal investigation when a lead line was used.

It should be noted that soundings shown on the boat sheet did not have velocity corrections applied and in some cases may be in error by as much as 2 or 3 feet. This error will resolve itself when the smooth sheet is made.

I. CONTROL OF HYDROGRAPHY

All hydrographic control was visual by sextant angles on shore objects. Positions were usually taken at one and one half minute intervals.

J. ADEQUACY OF SURVEY

This survey is complete within the limits defined and adequate to supersede all prior surveys for charting purposes, except for a shoal in the vicinity of lat. 41° 25.2 long. 71° 21.0. Although this area was developed, two additional splits should have been run. Adverse weather conditions prevented this before the close of the field season.

Item No. 11a of the Preliminary Review falls on this sheet in the vicinity of lat. $41^{\circ} 22.1N$ long. $71^{\circ} 23.3W$. Investigation of this area could not be made before the close of the field season due to rough seas caused by the winter storms.

Junctions with adjoining surveys appear to be in good agreement and depth curves can be drawn when the necessary velocity corrections are applied.

K. CROSSLINES

About 38.4 nautical miles of sounding lines were crosslines or about 9.8% of the total.

On the boat sheet discrepancies of about 1% were noted where level bottom was found. A larger discrepancy will be found where lines run using the 808 cross lines using the KDO fathometer, as the velocity correction had not been applied. The velocity correction for the KDO is larger than for the 808 fathometer.

See
P2
Review

L. COMPARISON WITH PRIOR SURVEYS

This survey was compared with prior survey H-1789, 1:10,000, 1887 and survey H-1787, 1:40,000, 1887. In general, the soundings shown on the old survey are in fair agreement with those on the new. Since the old survey was not as complete as the new, much of the necessary detail was not shown. Several shoals were found that were not apparent on the prior survey and are listed in section N of this report.

It is believed that all known shoals were proved. In most cases lesser depths and/or a slightly different location was found.

Junctions with prior surveys are in fair agreement.

See section H regarding soundings as shown on the boat sheet.

See
P5
of
Review

M. COMPARISON WITH CHART

A comparison with Chart No. 236, 8th edition January 1953, print date 9 August 1954, and Chart No. 1210, 6th edition print date 27 June 1955, shows no important differences except those listed in section N of this report.

See
P6
of
Review

N. DANGERS AND SHOALS

Following is a list showing a comparison with the prior surveys, a comparison with the charts as well as the dangers and shoals found within the limits of the survey. The locations and depths listed under "Present Survey" are taken from the boat sheet and may change slightly when the smooth sheet is made.

NO.	LATITUDE & LONGITUDE	POSITION	DEPTH		PRIOR SURVEYS	RECOMMENDATIONS AND REMARKS
			(PRESENT SURVEY)	CHARTS		
1.	$41^{\circ} 25.23N$ $71^{\circ} 27.20W$	95k vol.6	rk aw MIN	not shown	not shown	Chart rock awash ✓
2.	$41^{\circ} 26.38N$ $71^{\circ} 26.13W$	49ha vol.15	5 RK (L-L)	6	6	Chart new depth Fathometer shows deep
3.	$41^{\circ} 26.16N$ $71^{\circ} 27.05W$	30x vol.10	7 RK	10	10	Chart new depth ✓

NO.	LATITUDE & LONGITUDE	POSITION	(PRESENT SURVEY)	DEPTH CHARTS	PRIOR SURVEYS	RECOMMENDATIONS AND REMARKS
4.	41° 25.34N 71° 27.09W	59, 60 & 61 108 vol. 7	11 Obst.	36	36	sunken barge loaded with rocks Chart new depth
5.	41° 26.13N 71° 26.19W	71 da vol. 13	9	14	14	Chart new depth
6.	41° 26.06N 71° 26.24W	70da vol. 13	18	24	32	Chart new depth
7.	41° 26.23N 71° 25.76W	4 95da vol. 13	19 ¹⁸	59	59	Chart new depth
8.	41° 25.97N 71° 26.05W	46da vol. 13	20	24	73	Chart new depth
9.	41° 25.90N 71° 26.24W	26.00 W 24 aa vol. 12	23 20	29	29	Chart new depth
10.	41° 25.35N 71° 21.04W	153fa vol. 14	43	42	42	*Chart old depth
11.	41° 25.26N 71° 21.04W	154fa vol. 14	45	42	42	*Chart old depth
12.	41° 25.25N 71° 23.25W	15E 64H 29aa vol. 12	54 52	82	82	Not developed Chart new depth
13.	41° 25.53N 71° 23.39W	79a vol. 3	56 59	60	80	Chart new depth
14.	41° 24.44N 71° 22.31W	99-100ga vol. 15	3 74	73	73	*Chart old depth Submerged
15.	41° 22.61N 71° 25.35W	24.23 - 71° 21.91 - 72H 14-15c vol. 2	103 90	108	104	L.D. Chart new depth Inverted - Not found See 12c
16.	41° 24.40N 71° 22.40W	35ca vol. 13	99 92	wreck 56	100	**Not found
17.	41° 20.30N 71° 28.50W	1-61p vol. 7	46	obst. rep.	44	**Not found (insert)

*Further development required

**Wire drag required to disprove charted sounding

All charted dangers and shoals were found as charted except those listed above. In most cases a shoaler depth and a slightly different location was found.

G. COAST PILOT INFORMATION

There is one change necessary in the Coast Pilot Notes. This is reported in a Coast Pilot Report (Appendix E), a copy of which is attached.

P. AIDS TO NAVIGATION

See report on form 567.

Following is a list of all floating aids to navigation:

NAME OR NUMBER	LATITUDE & LONGITUDE	DEPTH OF WATER	VOL. & PGS.	DATE LOCATED
#497 Brenton Reef Light Ship	41° 25.71N 63 71° 22.56W 59	8 86	vol. 9 60a	9/21/56 <i>reference remarks only.</i>
Torpedo Range Bell Bouy F	41° 23.06N 71° 24.06W	102 ⁵ ✓	vol. 1 24a	7/26/56 ✓
Torpedo Range Bell Bouy G	41° 23.68N 69 71° 24.06W 69	101 ³ ✓	vol. 14 6 ga	10/30/56 ✓
Torpedo Range Bell Bouy H	41° 24.72N 73 71° 23.99W ✓	100 ✓ 97	vol. 1 37a	7/26/56 ✓
River Lodge Bouy 1	41° 26.07N 71° 26.16W ⁵	32 ⁴ ✓	vol. 12 81ba	10/9/56 ✓
Newton Rock Bell Bouy	41° 26.65N 63 71° 24.18W 19	34 ⁵	vol. 10 1w	10/2/56 ✓

Q. LANDMARKS FOR CHARTS

There are no new landmarks for charts to report. ✓

R. GEOGRAPHICAL NAMES

There are no new geographical names to report.

*check Rk names
in area offshore
after Narrows - error
on T-Sheet.*

S. SILTED AREAS

Not applicable, ✓

T. BY-PRODUCT INFORMATION

Not applicable. ✓

U-Y MISCELLANEOUS

Difficulties Encountered with 808 Type Fathometer.

On the 808 type fathometers much trouble was experienced with the loose phasing head. There was a certain amount of play in the gear teeth on the initial adjustment screw that could be eliminated. This looseness along with oval slots that engage the phasing head at various range settings, causes the initial trace to jump considerably when returned to the A-range from the B, C, or D ranges. It appears that this error is more or less constant; however not entirely so. The total error indicated from the time of leaving to returning to the A-range was pre-rated during the time when the fathometer was on the other scales. *reference - satisfactory.*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
NORFOLK DISTRICT OFFICE
102 West Olney Road
Norfolk, Virginia

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

7 March 1958

To: The Director
Coast and Geodetic Survey
Department of Commerce Bldg.
Washington 25, D. C.

Subject: Scale Change on Survey H-8315

It is requested that consideration be given to the feasibility of smooth plotting survey H-8315 (ECFP-1756) Appr. to Narragansett Bay, on a scale of 1:12,500. The use of the smaller scale will permit the use of 36" instead of 42" paper, and will be large enough to show all development clearly.

*OK'd by
Capt. Roberts
& Roy Carstensen*

Walter J. Chovan
Captain, C&GS
Norfolk District Officer

HLP:fs

Washington, D. C. 1st Indorsement 10 March 1958

Approved.

Chief, Hydrography Branch,
Coastal Surveys Division.

*x-tra time for verification
in changing scales for all
junctions, T-sheets, Boat Sheet Comps.*

Pos Copy

3. TABULATION OF APPLICABLE DATA

The bar check tabulation will be transmitted as a separate report. *

Respectfully submitted,

Donald L. Campbell, Lt., CGCS

ATTACHMENTS

APPENDIX

- A. LIST OF CONTROL STATIONS
- B. ABSTRACT OF VELOCITY CORRECTIONS
- C. STATISTICS
- D. TIDAL NOTE
- E. COAST PILOT REPORT
- F. APPROVAL SHEET

* See special report 56/137 for discussion
of strays and development investigations

NORFOLK PROCESSING OFFICE
LIST OF SIGNALS
To Accompany
H-8315
ECFP-1756

TRIANGULATION STATIONS

BEA	BEAVERTAIL LIGHTHOUSE, 1869-1940
HAL	WHALE ROCK BEACON, 1940
HAZ	HAZARD TOWER, 1940
IVE	NARROW RIVER E (U.S.E.), 1909-40
JUD	POINT JUDITH LIGHTHOUSE, 1839-1940
*LITE	MAIN BREAKWATER, CENTER LIGHT 2, 1948
NEW	NEWPORT, DAVIS HOUSE CUPOLA, 1912-35
OUT	SOUTH, 1943
TANK	POINT JUDITH, TANK, 1940

*Falls off limits of sheet - used on insert only.

TOPOGRAPHIC STATIONS

SOURCE T-11432

Aim Big Jim Joe

SOURCE T-11438

Cop Dix Eva Fix Gig Hop Ion

PLANIMETRIC FEATURES

SOURCE T-11433

End

APPENDIX B
ABSTRACT OF VELOCITY CORRECTIONS
PROJECT 13870
SHEETS H-8316; H-8315; H-8314; H-8313; (ECFP -1856)

GROUP I

LAUNCH CS-168

FATHOMETER No. 808 #77

SHEETS: *H-8314

**H-8316

*8/13 to 8/14; 8/20 to 9/3

**9/6 to 9/11; 9/12 to 9/26; 10/1 to 10/3

TABULATIONS OF RESULTS (SEE NOTE BELOW)

DEPTHS (ft.)	CORRECTIONS (ft.)
0 to 33.0	0.0
33.1 to 36.5	+ 0.2
36.6 to 39.0	+ 0.4
39.1 to 45.0	+ 0.6
45.1 to 70.0	+ 0.8

Not used in H-8315

NOTE: Various Initial settings were used throughout the season. It is to be noted that whenever the initial was changed, the fish unit was raised or lowered accordingly to keep the velocity correction at zero.

* * * * *

GROUP II

LAUNCH CS-168

FATHOMETER NO. EDO # 201

SHEETS: *H-8314; **H-8316;

#H-8313; #ECFP-1856

*6/12 to 8/9; 8/15 to 8/16; 10/16 only

**9/27 only; 10/4 to 10/15; 11/9 only

#6/15 to 11/1

#11/6 to 11/7

TABULATIONS OF RESULTS (SEE NOTE BELOW)

DEPTHS (ft.)	CORRECTIONS (ft.)
0.0 to 38.0	0.0
38.1 to 70.0	+ 0.2

Not used in H-8315

NOTE: Initial setting is 1.0 except on sheet H-8316 when it is 0.0. It is to be noted however that on sheet H-8316 the fish was raised 1.0 ft. thus making the velocity corrections remain consistent with those for the other sheets.

GROUP III

TABULATIONS OF RESULTS (SEE NOTE BELOW)

DEPTH (ft.)	CORRECTIONS (ft.)
10	0.0
20	0.0
30	0.0
40	0.0
50	0.0
60	0.0
70	0.0
80	0.0
90	0.0
100	0.0
110	0.0
120	0.0
130	0.0
140	0.0
150	0.0
160	0.0
170	0.0
180	0.0
190	0.0
200	0.0
210	0.0
220	0.0
230	0.0
240	0.0
250	0.0
260	0.0
270	0.0
280	0.0
290	0.0
300	0.0
310	0.0
320	0.0
330	0.0
340	0.0
350	0.0
360	0.0
370	0.0
380	0.0
390	0.0
400	0.0
410	0.0
420	0.0
430	0.0
440	0.0
450	0.0
460	0.0
470	0.0
480	0.0
490	0.0
500	0.0
510	0.0
520	0.0
530	0.0
540	0.0
550	0.0
560	0.0
570	0.0
580	0.0
590	0.0
600	0.0
610	0.0
620	0.0
630	0.0
640	0.0
650	0.0
660	0.0
670	0.0
680	0.0
690	0.0
700	0.0
710	0.0
720	0.0
730	0.0
740	0.0
750	0.0
760	0.0
770	0.0
780	0.0
790	0.0
800	0.0
810	0.0
820	0.0
830	0.0
840	0.0
850	0.0
860	0.0
870	0.0
880	0.0
890	0.0
900	0.0
910	0.0
920	0.0
930	0.0
940	0.0
950	0.0
960	0.0
970	0.0
980	0.0
990	0.0
1000	0.0

0.0 to 15.0	0.0
15.1 to 48.0	- 0.2
48.1 to 70.0	- 0.0

NOTE: Initial setting is 0.0

Not used in
H-8315

GROUP IV

LAUNCH CS-82 PATH. NO. EDO-202 SHEETS: #H-8314; ##H-8313
#H-8315; #ECFP-1856

*5/28 to 6/8
**6/11 to 9/26
#7/26 to 10/17
##9/4 to 10/25

TABULATIONS OF RESULTS (SEE NOTE BELOW)

DEPTH (ft.)	CORRECTIONS (ft.)
10	0.0
20	0.0
30	0.0
40	0.0
50	0.0
60	0.0
70	0.0
80	0.0
90	0.0
100	0.0
110	0.0
120	0.0
130	0.0
140	0.0
150	0.0
160	0.0
170	0.0
180	0.0
190	0.0
200	0.0
210	0.0
220	0.0
230	0.0
240	0.0
250	0.0
260	0.0
270	0.0
280	0.0
290	0.0
300	0.0
310	0.0
320	0.0
330	0.0
340	0.0
350	0.0
360	0.0
370	0.0
380	0.0
390	0.0
400	0.0
410	0.0
420	0.0
430	0.0
440	0.0
450	0.0
460	0.0
470	0.0
480	0.0
490	0.0
500	0.0
510	0.0
520	0.0
530	0.0
540	0.0
550	0.0
560	0.0
570	0.0
580	0.0
590	0.0
600	0.0
610	0.0
620	0.0
630	0.0
640	0.0
650	0.0
660	0.0
670	0.0
680	0.0
690	0.0
700	0.0
710	0.0
720	0.0
730	0.0
740	0.0
750	0.0
760	0.0
770	0.0
780	0.0
790	0.0
800	0.0
810	0.0
820	0.0
830	0.0
840	0.0
850	0.0
860	0.0
870	0.0
880	0.0
890	0.0
900	0.0
910	0.0
920	0.0
930	0.0
940	0.0
950	0.0
960	0.0
970	0.0
980	0.0
990	0.0
1000	0.0

0.0 to 14.0	0.0
14.1 to 21.0	+
21.1 to 27.5	+
27.6 to 36.0	+
36.1 to 46.0	+
46.1 to 54.0	+
54.1 to 59.0	+
59.1 to 64.0	+
64.1 to 69.0	+
69.1 to 70.0	+

NOTE: Initial setting is 1.0 feet

APPENDIX B (CON'T)
ABSTRACT OF VELOCITY CORRECTIONS
PROJECT 13470

GROUP V

LAUNCH CS-82

FATHOMETER NO. EDO #202

SHEETS: H-8315 & ECFP-1856

H-8367

For all dates in which depths over 70 feet were measured.

TABULATION OF RESULTS (SEE NOTE BELOW)

DEPTH (ft.)	CORRECTIONS (ft.) (B - Range)
70.0 to 72.0	+ 2.2
72.0 to 81.0	+ 2.4
81.0 to 86.0	+ 2.6
86.0 to 88.0	+ 2.8
88.0 to 93.0	+ 3.0
93.0 to max. depths	+ 3.2

NOTE: (a) See bar check 10/2/56, w day, launch CS-82.
 (b) Phase correction between A- and B-range is 0.0
 (c) Initial setting is 1.0 feet

GROUP VI

LAUNCH CS-82

FATHOMETER 806777

SHEETS: H-8315 & ECFP-1856

H-8367

Phase corrections the same for all dates.

<u>PHASE CORRECTIONS</u>		(ft.)
B- range	all depths	0.0
C- range	" "	-0.4

APPENDIX C STATISTICS

DATE	VOL. NO.	DAY LTR.	NO. D.P.	POSITIONS FATH.	STA. MI. SDG.
Launch 08-82					
7/26/56	1	a	2	99	16.3
7/30/56	1&2	b		146	23.4
7/31/56	2	c		143	22.7
8/3/56	2	d		59	9.9
8/8/56	3	e		121	16.8
8/9/56	4	f		149	24.2
8/13/56	4&5	g		150	22.9
9/4/56	5	h		44	6.3
9/5/56	5&6	j	10	119	18.2
9/6/56	6	k	1	104	10.1
9/7/56	6	l		32	3.5
9/10/56	6	m	1	44	5.0
9/11/56	7	n	1	93	12.4
9/12/56	7	p		61	4.4
9/13/56	7	q	2	58	3.5
9/18/56	8	r		32	4.8
9/19/56	8	s		120	16.7
9/21/56	8&9	t		81	9.4
9/25/56	9	u		147	19.9
10/1/56	10	v	1	44	6.5
10/2/56	10	w	1	113	15.3
10/3/56	10&11	x	22	92	11.4
10/4/56	11	y		90	11.9
10/5/56	11&12	s		84	11.9
10/8/56	12	aa		74	9.6
10/9/56	12	ba	23	67	9.0
10/10/56	13	ca	1	57	7.1
10/16/56	13	da	6	88	8.2
10/17/56	13&14	ea		82	10.3
10/29/56	14	fa	8	186	24.4
10/30/56	14&15	ga	19	96	11.5
10/31/56	15	ha	16	35	3.9
TOTALS			114	2914	391.4

TOTAL Positions 3028

Square miles of sounding - 23.9

see progress sheet 6.

APPENDIX B

TIDAL NOTE FOR HYDROGRAPHIC SURVEY H-5315 (HWP-1756)

All tidal data for reduction of soundings was obtained from portable tide gages at Monahan's Cove, Narragansett, R.I. and Providence State Pier No. 1, Providence, R.I..

Monahan's Cove

Gage: lat. $41^{\circ} 25.35'N$

long. $71^{\circ} 27.35'W$

Staff: Mean low water corresponds to 0.5 feet on staff.

Corrections: No time or height corrections were applied to the results obtained from the gage in reducing soundings.

Providence State Pier No. 1

Gage: lat. $41^{\circ} 48.43'N$

long. $71^{\circ} 24.08'W$

Staff: Mean low water corresponds to 0.0 feet on staff.

Corrections: Height ratio 1.4 Time corr. - 10 min.

*Not to be used in
This Survey
See Correction in form 712
this report.*

The method of determining tide reducers is in accordance with the following letters;

36-292-15b dated 2 July 1956

36-380-15b dated 16 August 1956

36911-15b.2 dated 29 January 1957

APPENDIX E
COAST PILOT REPORT

ATLANTIC COAST

Section B - Cape Cod to Sandy Hook

Fifth (1950) Edition

Page 216 line 30 read;

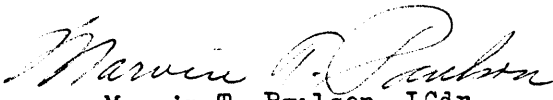
"Entrance, has a depth of 14 feet and is marked by a buoy. 18
Another shoal about 0.3 mile ENE of River Lodge has a depth of 19
feet.-"

APPROVAL SHEET

BOAT SHEET ECFP 1756 (H 8315)

The hydrographic survey of sheet H 8315 is approved and forwarded as complete and adequate, except as noted in item "J" of the descriptive report. The area north and west from latitude 41 - 24.5 and longitude 71 - 20.5 to latitude 41 - 26.00 and longitude 71 - 22.00 is very jagged on the fathogram, indicating a rocky bottom with peaks that can be missed with the fathometers. Additional development will be made on adjoining sheets for overlap in this area.

The soundings on the boat sheet were reduced for predicted tides, and no velocity or bar check corrections were applied. Doubtful sounding crossings have been reviewed by applying the corrections to ascertain any discrepancy, and good crossings and junctions were noted.


Marvin T. Paulson, LCdr.
Officer in Charge
East Coast Field Party

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8315 (Field No. ECFP-1756)

GENERAL

This survey was smooth plotted, with the Director's permission, on a scale of 1:12,500. (See attached letter).

Soundings at crossings agree very well considering the fathometer trouble experienced, and the fact that a large part of the work was done during choppy sea conditions.

SOUNDINGS

All fathograms were check scanned and the soundings reduced with templates by personnel of the processing office.

Because of the reduced scale of the smooth sheet, and in order to avoid un-even sounding intervals, all soundings on "A" scale were scanned at 22½ second intervals. Those on "B" and "C" scales were scanned at 30 second intervals.

OVERLAYS

The following positions were plotted on an overlay to avoid un-due congestion on the smooth sheet:

93 to 102j; 13 to 60q; 12 to 56da; 72 to 94da

INSERTS

The hydrography plotted as an insert falls off the limits of the sheet. The positions of the control stations were transposed to a suitable location on the sheet, and after the hydrographic positions had been plotted, they were removed to avoid interference with the regular hydrographic lines.

DISCREPANCIES

Soundings on positions 190 to 194fa were not penciled as they averaged 3 feet deeper than surrounding hydrography. *dropped ✓* NP

Positions 8, 9 and 10ba were not smooth plotted because of weak fixes. These are detached positions on rocks which may be visible on air-photos. *plotted by arcs and carried over*

Norfolk, Va.
11 Sept. 1958

Respectfully submitted,
Hugh L. Proffitt
Hugh L. Proffitt
Cartographer.

Survey No. H-8315

GEOGRAPHIC NAMES		Survey No. H-8315		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	
Name on Survey		A	B	C	D	E	F	G	H	K									
Rhode Island				(for title)													BGN	1	
Narragansett Bay				"	"												"	2	
Rhode Island Sound																	"	3	
Point Judith																		4	
Narragansett Pier				It would seem preferable to use this name as location of tide station rather than Monahan Cove, a very small feature that probably will not be named on any chart other than possibly No. 268.												BGN	5		
																	6		
																	7		
The Narrows				This name is apparently in local use, but seems never to have been mapped.													8		
West Passage																	9		
Beavertail Point																	10		
East Passage																	11		
Brenton Point				Names approved 10-16-58													12		
				L. Heck													13		
				L.H.													14		
Tide Station off sheet:																	15		
Providence State Pier No. 1																	16		
Point Judith Neck																	17		
Narragansett Pier																	18		
River Ledge																	19		
Old Antonio																	20		
Cormorant Rk																	21		
River Rk																	22		
Bass Rk																	23		
Clump Rks																	24		
																	25		
																	26		
																	27		
																	M 234		

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8315...

Records accompanying survey: Smooth sheets 1...;
 boat sheets 1...; sounding vols. 15...; wire drag vols.;
 Descriptive Reports 1...; graphic recorder envelopes 14...; Envelopes
 special reports, etc. 1...
 Overlay: smooth sheet:

The following statistics will be submitted with the cartog-
 rapher's report on the sheet:

Number of positions on sheet ✓		<u>3028</u>
Number of positions checked ✓		<u>114</u>
Number of positions revised ✓		<u>6</u>
Number of soundings revised and added (refers to depth only)		<u>35</u>
Number of soundings erroneously spaced ✓ (3 placed digits center on center numeral adjusted in mking)		<u>7</u>
Number of signals erroneously plotted ✓ or transferred	
Topographic details ✓	Time	<u>6 hrs</u>
Junctions	Time	<u>12 hrs</u>
Verification of soundings from ✓ graphic record	Time
Special adjustments Corr from Tides	Time	<u>8 hrs</u> 1053 Sdg rev.

Verification by Ernest S. Howe Total time 231 Date 8/17/59
 Reviewed by W. J. Gessner Time 83 Date 7-27-60

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstans

12 November 1958

Plane of reference approved in
15 volumes of sounding records for

HYDROGRAPHIC SHEET 8315

Locality Point Judith, Rhode Island

Chief of Party: M. T. Paulson in 1956

Plane of reference is mean low water, reading

0.5 ft. on tide staff at Monahans Cove

19.9 ft. below B.M. 1 (1956)

1.4 ft. on tide staff at Newport (Staff of 1930)

36.0 ft. below B.M. 1 (1930)

Height of mean high water above plane of reference is:

Monahans Cove . . . 3.2 feet

Newport 3.5 feet

Condition of records satisfactory except as noted below:

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

Vol.	Positions
3	1e - 86e <i>85</i> ✓
4	1f - 66f ✓
9	53t - 81t ✓
10	1v - 15v ✓
	1w - 29w ✓
	68w - 111w ✓
	1x - 36x ✓
11	104x - 111x ✓
	1y - 78y ✓
	1z - 61z ✓

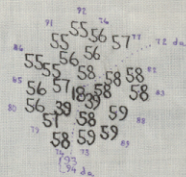
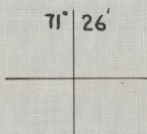
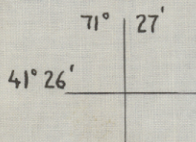
Vol.	Positions
12	62z - 81z ✓
	38aa - 74aa ✓
	76ba - 90ba ✓
13	69da - 94da ✓
14	108fa - 194fa ✓
15	32ga - 115ga ✓
	1ha - 38ha ✓

William M. Hopkins

Signature

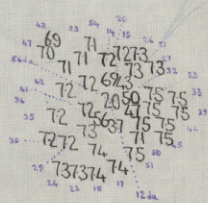
Chief, Tides Branch

Aim ○

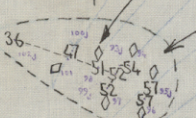
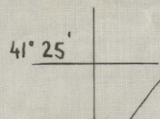


34 60

Pos 60
Isolated
Obstr.



Fix



Fish trap cables supported by buoys, subm. 2ft

No buoy @ pos 98
denote cable submerged 10ft
EET.

fish net cable
submerged 2 1/2 ft.
EET.

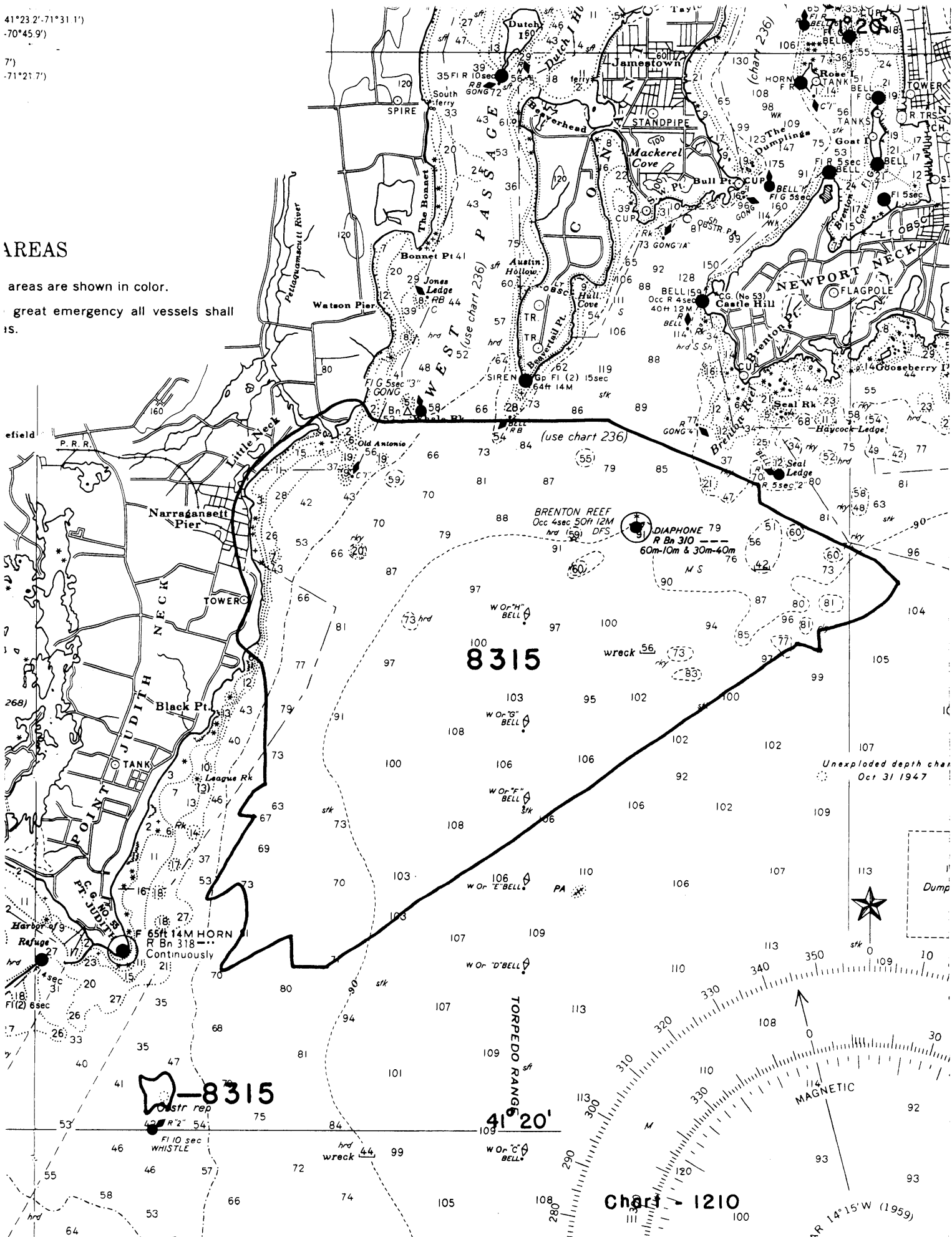
Pos. 93-102 ✓
Pos. 13-60a ✓
Pos. 12-56da ✓
Pos. 72-94da ✓

ECFP-1756
H-8315

41°23'2"-71°31'1"
-70°45'9")
7")
-71°21'7")

AREAS

areas are shown in color.
great emergency all vessels shall
is.



8315

8315

41°20'

Chart - 1210

MAGNETIC

AR 14°15'W (1959)

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8315

FIELD NO. ECFP-1756

Rhode Island, Approaches to Narragansett Bay, East of Pt. Judith Neck

SURVEYED: July - October 1956

SCALE: 1:12,500

PROJECT NO. 13870

SOUNDINGS: EDO Depth Recorder
808 Depth Recorder
Leadline

CONTROL: Sextant fixes
on shore signals

Chief of Party ----- M. T. Paulson
Surveyed by ----- D. L. Campbell; R. A. Lewis
Protracted by ----- W. L. Jonns
Soundings plotted by ----- W. L. Jonns
Verified and inked by ----- E. E. Thomas
Reviewed by ----- I. M. Zeskind
Inspected by ----- R. H. Carstens

DATE 7-27-60

1. Shoreline and Control

** Shoreline revised from reviewed
survey T-11438 (1954-56)*

The shoreline originates with unreviewed air-photographic surveys of T-11432, T-11433, T-11434 and T-11438 of 1954.

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 were adequately delineated, except close inshore where the foul character of the bottom prevented development to the low-water line. The 90-ft. curve was drawn to better delineate bottom configuration.

The bottom is very irregular close inshore on the west and fairly irregular in depths less than 90 ft. Elsewhere the bottom is smooth. Submarine features such as ledges, shoals and pinnacles contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7640 (1948) on the west, H-6443 (1939) on the southwest, and H-6444 (1939) on

H-8315 -2

the southeast. The junction with H-8367 (1956-7) on the north will be considered in the review of that survey.

5. Comparison with Prior Surveys

- A. H-153 (1844), 1:20,000
H-1787 (1887), 1:40,000
H-1789 (1887), 1:10,000

These early reconnaissance surveys cover the area of the present survey. A comparison between the prior and present surveys reveals only minor differences of 2-3 ft. in depth. The bare rock charted in Lat. $41^{\circ}26.27'$, Long. $71^{\circ}26.52'$ originates with H-1789 (1887). The present survey shows this feature to be a rock awash at MLW. The charted bare rock should, therefore, be revised to a rock awash.

A number of bottom characteristics have been carried forward from the prior surveys to the present survey. With the addition of these bottom characteristics, the present survey is adequate to supersede the prior surveys within the common area.

B. Wire Drag Surveys

- H-4006 WD (1917), 1:20,000
H-7029 WD (1949), 1:20,000

There are no conflicts between the effective wire drag depths and the soundings on the present survey. A number of soundings have been carried forward from the wire drag surveys to the present survey.

6. Comparison with Chart 236 (Latest print date 5-23-60) 268 (Latest print date 12-21-59) 1210 (Latest print date 2-29-60)

A. Hydrography

The charted hydrography originates principally with the prior surveys previously discussed which need no further consideration, with the boat sheet and the smooth sheet of the present survey prior to verification and review. A comparison between chart and present survey reveals only minor differences of 1-4 ft. in depths. Attention, however, is directed to the following:

1. The reported obstruction charted in Lat. $41^{\circ}20.3'$, Long. $71^{\circ}28.4'$ originates with HON to M 47 (1949). A search of one hour and 35 minutes by the field party failed to reveal the existence of the obstruction. However because of the limited area

covered, it is recommended that the symbolization be retained on the chart until the area can be wire dragged to either confirm or disprove the existence of the obstruction. (See page 4, No. 17 of the Descriptive Report.)

2. The wreck cleared by a wire drag set to an effective depth of 56 ft. which is charted in Lat. $41^{\circ}24.5'$, Long. $71^{\circ}22.5'$ falls in present depths of 97-99 ft. The wreck originates with the U. S. Navy Wreck List of 1957, and the cleared depth originates with H-7029 WD (1948). The wreck was not found on the present survey and it is, therefore, recommended that the cleared depth be retained on the chart. (See page 4, No. 16 of the Descriptive Report.) *cleared by 68' on FE 1 (1964)*

3. The barge wreck located on the present survey in Lat. $41^{\circ}26.50'$, Long. $71^{\circ}26.25'$ has not been charted. *1093'*

4. The 21-ft sounding charted in Lat. $41^{\circ}26.00'$, Long. $71^{\circ}21.78'$ from the unverified survey H-8367 (1956) falls on the present survey on a 28-ft. sounding which was brought forward from H-4006 WD (1917). The charted 21-ft. sounding will be considered in the review of H-8367.

5. The 3 bare rocks charted in Lat. $41^{\circ}25.69'$, Long. $71^{\circ}27.33'$ originates with air-photographic survey T-5095 (1948-49). These rocks are part of a ledge on the present survey and the present topographic survey T-11438.

The present survey is adequate to supersede the charted hydrography within the common area except as noted above.

B. 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 sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was accurately done.

c. Tide reducers originally entered from Providence tide gage were revised to reducers from the Newport gage.

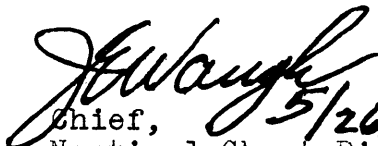
8. Compliance with Project Instructions

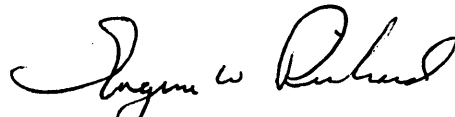
The survey adequately complies with the Project Instructions.


9. Additional Field Work Recommended


This survey is considered basic. However, the obstruction and the wreck noted in paragraphs 6A-1 and 6A-2 above will presently remain on the charts as symbolized until further information is furnished by wire drag methods.

Examined and Approved:


Chief, *5/26/61*
Nautical Chart Division


Projects Officer,
Operations Division


Assistant Director,
Office of Cartography


Assistant Director,
Office of Oceanography

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8315

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
11/17/58	268	H.C. Andersen	Before After Verification and Review
1/15/59	353	H.C. Andersen	Before After Verification and Review
1/15/59	1210	H.C. Andersen	Before After Verification and Review Partially
4-20-59	236	R.F. Elkins	Before After Verification and Review Partly applied
8-26-59	268	E. F. Elkins	Before After Verification and Review Before
12-28-60	236	R.F. Elkins	Before After Verification and Review Fully applied.
12-28-60	353	R.F. Elkins	Before After Verification and Review Fully applied. app in part thru chrt 236.
12-28-60	1210	R.F. Elkins	Before After Verification and Review Fully applied. app in part thru chrt 353.
10/24/61	1210 Recd	M. Rogers	Before After Verification and Review Fully appld thru chrt 353 in common area and thru chrt 1210 for remainder
4/5/62	268	William H. Hall	Before After Verification and Review Fully applied
2/13/95	13221 (extension)	John E. Barter	Before After Verification and Review fully APP'd

M-2168-1

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.