

FE 119

Diagram No. 1210-3

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey ... Field Examination.....

Field No.

Office No..... FE-119.....

LOCALITY

State Massachusetts.....

General Locality .. Buzzards Bay.....

Locality South of West Island.....

19 53

CHIEF OF PARTY
H.O. Fortin.....

LIBRARY & ARCHIVES

DATE December 23, 1953.....

☆ U.S. GOV. PRINTING OFFICE: 1976-669-441

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as; FE No.9, 1953

FE 119

FE No. 9
1953

9JK

FE 119

Diag. Chb. No. 1210-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC INVESTIGATION

Field No. Chart No. 252 Office No. F.E. No. 9, 1953

LOCALITY

State MASSACHUSETTS

General locality BUZZARDS BAY

Locality South of WEST ISLAND

19 53

CHIEF OF PARTY
HENRY O. FORTIN

LIBRARY & ARCHIVES

DATE December 23, 1953

B-1870-1 (1)

FE No. 9
1953

H.O.N.M. 3 1/16/54

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. F. E. No. 9, 1953

Field No. Chart No. 252

State MASSACHUSETTS
General locality BUZZARDS BAY
Locality South of WEST ISLAND
Scale 1/20,000 Date of survey 23 - 24 September 1953
Instructions dated 16 September 1953
Vessel U.S.C. & G.S.S. BOWEN
Chief of party HENRY O. FORTIN
Surveyed by H. O. Fortin, J. F. Vance, Jr., and R. H. Houlder.
Soundings taken by fathometer, ~~hydrographic~~ hand lead, ~~XXX~~
Fathograms scaled by B. R. Winter
Fathograms checked by R. H. Houlder
Protracted by Ships Officers
Soundings penciled by Ships Officers
Soundings in ~~English~~ feet at MLW ~~XXXX~~

REMARKS:

286

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SURVEY H - ____
Field No. Chart 252

H. O. Fortin, Chief of Party
Scale 1/20,000
U.S.C. & G.S. Ship BOWEN
23 - 24 September 1953.

A. PROJECT

This survey was executed in compliance with instructions dated 16 September 1953, to the Commanding Officer, Ship BOWEN. ✓

B. SURVEY LIMITS AND DATES

The area surveyed covered the dumping-ground just south of West Island in Buzzards Bay, Massachusetts. Field operations began on 23 September 1953 and ended on 24 September 1953. ✓

C. VESSELS AND EQUIPMENT

The Ship BOWEN, using portable fathometer No. 157SXP (Type 808-J), did all the hydrography. ✓

The BOWEN'S 16' aluminum skiff investigated the shoals with hand lead soundings. ✓

The BOWEN'S 14' aluminum skiff, equiped with portable fathometer No. 100S (Type 808-J), assisted in the location of the shoals. ✓

D. TIDE AND CURRENT STATIONS

A tide staff was installed at Clark Point, New Bedford, Mass., and connected by levels to six previously established bench marks. Half hour observations were recorded during the time that hydrography was in progress. All records were forwarded to the Washington Office on 29 September 1953. Tide reducers were completed by the office and returned on 2 October 1953. These reducers were entered in the sounding volumes without further correction for time or height, as per instructions. Predicted tides were used in reducing soundings for application to the boat sheet. ✓

No current stations were occupied. *Actual tides applied* ✓

E. BOAT SHEET

A copy of Chart No. 252 was used for a boat sheet. ✓

Tracing made for smooth sheet

F. CONTROL STATIONS

There is attached to this report a list of signals used for control. All signals were charted landmarks with the exception of ARK (Clark Point Lighthouse 1934), which was plotted from triangulation data. All signals used have been circled in red on the chart used for a boat sheet. ✓

G. SHORELINE AND TOPOGRAPHY

No work on revision of Shoreline or Topography was done. ✓

H. SOUNDINGS

Soundings were obtained with Submarine Signal Company type 808-J depth recorder. Standard procedure was used on obtaining bar checks in accordance with paragraph 557 of the Hydrographic Manual. Enclosed herewith are the bar check computations, a list of the initial corrections, a list of the settlement and squat corrections, and all information on tide reducers. The fathograms were also scanned for speed corrections, but they were found to be negligible. ✓

Hand lead soundings were obtained using lead line No. 2 (60'). Lead line comparisons are shown on Page 19 of Volume No. 1. ✓

I. CONTROL OF HYDROGRAPHY

Three point fixes on located shore objects were used for control of the survey. ✓

J. ADEQUACY OF SURVEY

This survey complies with instructions, and is considered to be adequate and complete. ✓

K. CROSSLINES

Sufficient cross lines (10 %) were run while investigating shoals, with discrepancies all under 5 %. ✓

L. COMPARISON WITH PRIOR SURVEYS

No prior surveys were available ✓

M. COMPARISON WITH CHART

The area surveyed was a dumping-ground and no soundings were shown on Chart No. 252, and therefore a comparison could not be made. ✓

N. DANGERS AND SHOALS

Before the Ship BOWEN entered the area to be surveyed, an investigation of the reported 6' shoal, referred to in paragraph 2 of the instructions, was made with a 16' skiff. No signs of any 6' shoal could be found 200 yards north of the buoy (Pos. 1 - 5, a Day, Vol. 1). The position of the buoy was checked, and found to be 350 yards ^{west} west of its charted position. Another investigation was made north of this position, with no signs of a 6' shoal (Pos. 7 - 12, a Day, Vol. 1). ✓

N. DANGERS AND SHOALS (continued)

The Ship BOWEN then accomplished the hydrography, and discovered five separate shoals which are listed below.

<u>No.</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Depth</u>	<u>Position</u>
1.	41° 34' 02" ✓	70° 50' 08" ✓	17 1/2'	92 - 93 A ✓
2.	41° 34' 2 3/4" ✓	70° 50' 08" ✓	16 1/4'	43 - 44 A ✓
3.	41° 34' 11" ✓	70° 48' 52" ✓	13 1/2'	122 - 123 A ✓
4.	41° 34' 17" ✓	70° 48' 58" ✓	13 1/2'	147 - 148 A ✓
5.	41° 34' 28" ✓	70° 48' 58" ✓	7 1/2'	4 - 5 A, 25 - 26 B ✓

These shoals were investigated with a skiff and hand lead soundings the following day. A second skiff joined the search equiped with a fathometer, and helped in the location of the shoals. As most of the shoals were actually sharp pinnacles, it was quite difficult to get the shallowest depth with a lead line. The second skiff equiped with fathometer found sharp pinnacles on Shoals Nos. 2, 3, and 4 which could not be located with a hand lead. ✓

If the dumping-grounds is going to be closed and the area opened to navigation, it is recommended that the area be wire dragged. ✓

P. AIDS TO NAVIGATION

Bell "2" was located with the skiff (Pos. No. 6, a Day, Vol. 1) on 23 September 1953, and found to have a Latitude of 41° 34' 12" ✓, Longitude of 70° 49' 03" ✓, and water depth of 31 feet. The same buoy was also located with the ship, (Pos. 62 - 63, A Day, Vol. 2). The buoy seemed to be about 350 yards to the west of it's charted position. ✓
WWW

U. MISCELLANEOUS

Bottom samples were taken (Pos. 1, 11, 12, 18; a Day, Vol. 1). ✓

Z. TABULATION OF APPLICABLE DATA

1. Four (4) volumes of level records (Forwarded to Wash. Office 9/29/53).
2. Tide Reducers & Curves, and correspondence on reducers.
3. Bar Check computations.
4. Initial corrections. (Items 2 through 9)
5. Settlement and Squat corrections. (forwarded with
6. Speed scanning. (Descriptive Report,
7. Copy of Instructions. (4 December 1953.
8. Six (6) Bench Mark Recovery Notes.
9. Two (2) bundles of Fathograms.

Respectfully submitted,

J. F. Vance, Jr.
J. F. Vance, Jr., Ens., USC&GS

Approved and forwarded,

H. J. Seaborg
H. J. Seaborg, Cdr., USC&GS,
C. O., Ship BOWEN

LIST OF STATIONS

<u>NAME</u> used in Hydrographic Survey	<u>ORIGIN OF STATION</u>
ANT	- Cormorant Rock, Landmark Chart No. 252.
ARK	- Clark Point Lighthouse, 1934
ARMY	- Tower (West Island), Landmark Chart No. 252.
CAT	- Stack, Landmark Chart No. 252. Approx. location - Lat: $41^{\circ} 36' 47''$; Long: $70^{\circ} 54' 38''$.
DOG	- Stack, Landmark Chart No. 252. Approx. location - Lat: $41^{\circ} 36' 24''$; Long: $70^{\circ} 54' 23''$.
FAIR	- Tank, elevated, Landmark Chart No. 252.
HILL	- Old Tower (Round Hill), Landmark Chart No. 252.
LIT	- Little Black Rock, Landmark Chart No. 252.
ROCK	- Black Rock, Landmark Chart No. 252.
TACK	- Stack, Landmark Chart No. 252. Approx. location - Lat: $41^{\circ} 38' 04''$; Long: $70^{\circ} 53' 43''$.

STATISTICS FOR HYDROGRAPHIC SURVEY H _ _ _ _ _

(_____ 1953)

<u>Day</u>	<u>Volume Number</u>	<u>Date</u>	<u>No. of Hand Lead Soundings</u>	<u>No. of Positions</u>	<u>Statute Miles of Sounding</u>
A	2	9/23/53	--	193	23.3
B	2	9/24/53	--	146	19.9
a	1	9/23/53	145	37	2.0
b	1	9/24/53	28	28	3.0
Totals - - - - -			173	404	48.2

1.1 Square Statute Miles of Sounding.

(6)

TIDE NOTE

A tide staff was established at Clark Point, New Bedford, Massachusetts (Lat: $41^{\circ} 35' 47''$; Long: $70^{\circ} 54' 01''$), and half-hourly readings recorded. The staff was connected to six previously established bench marks. All records were forwarded to the Washington Office, where reducers were computed and forwarded to this Party.

(7)

VELOCITY CORRECTIONS

Fathometer No. 157SPX

A Scale - 23 - 24 September 1953

0.0	from	0 to 12'
+ 0.5	from	12 to 38'
+ 1.0	from	38 to 55'

Peaks only

0.0	from	0 to 3'
+ 0.2	from	3 to 14'
+ 0.4	from	14 to 24'
+ 0.6	from	24 to 34'
+ 0.8	from	34 to 44'
+ 1.0	from	44 to 54'

CHART # 252

WEST ISLAND.

(Initial Corrections)

DATE	DAY LETTER	From Pos	To Pos	REMARKS						
9/23/53	A	ALL	DAY	0						
9/24/53	B	ALL	DAY	0						

S & S Corrections

R.P.M.	Corrections	Remarks
400	+ .2	Peaks only
500	+ .2	Peaks only
600	+ .5 + .2	6.0' to 14.5' over 15' on Peaks only
700	+ .5 { .6 .6 .4 + .2	0 to 12' on Peaks only 12.5' to 15' 15.5' to 19.5' over 20' on Peaks Only

SPEED SCANNING

①

157 SPX

BUZZARDS BAY - WEST ISLAND

9/23/53 to 9/24/53

DAY	Pos.	Actual Paper Speed	Correct Paper Speed	Correction	Actual Corr./100'		REMARKS
A	1-5	8.03	8.00	- .4	0.0		
	5-10	10.59	10.67	+ .8			
	10-13	8.00	8.00	0.0			
	13-17	9.98	10.00	+ .2			
	17-20	7.98	8.00	+ .3			
	20-25	11.31	11.33	+ .2			
	25-27	4.68	4.67	- .2			
	28-33	10.69	10.67	- .2			
	33-37	8.67	8.67	0.0			
	37-40	7.98	8.00	+ .3			
	41-45	8.65	8.67	+ .2			
	45-49	9.30	9.33	+ .3			
	49-53	10.00	10.00	0.0			
	53-58	11.30	11.33	+ .3			
	58-62	9.30	9.33	+ .3			
	63-68	10.65	10.67	+ .2			
	68 to 1st out	O.K.					
	1st out to 2nd out	3.15	3.33	+ 5.4		Speed Control off	
	2nd out to	70 O.K.					
	70-73	7.30	7.33	+ .4			
	74-78	8.02	8.00	- .8			
	78-82	9.33	9.33	0.0			
	83-87	7.99	8.00	+ .1			
	87-91	7.98	8.00	+ .3			
	91-96	11.31	11.33	+ .2			
	96-102	10.04	10.00	- .4			
	102-103	3.35	3.33	- .6			
	104-109	9.97	10.00	+ .3			
	109-113	9.31	9.32	+ .2			
	113-119	9.97	10.00	+ .3			
	119-124	9.96	10.00	+ .4			
	124-129	10.67	10.67	0.0			
	129-134	11.27	11.33	+ .6			
	134-139	11.29	11.33	+ .4			
	139-144	10.00	10.00	0.0			
	145-150	9.95	10.00	+ .5			
	150-155	9.96	10.00	+ .4			
	156-161	9.97	10.00	+ .3			
	161-165	9.98	10.00	+ .2			
	165-170	9.99	10.00	+ .1			
	170-174	10.03	10.00	- .3			
	175-180	9.92	10.00	+ .8	0.0		

JFV

SPEED SCANNING

②

BUZZARDS BAY - WEST ISLAND

157 SPX

Day	Pos.	Actual Paper Speed	Corrected Paper Speed	Correction / 100'	Actual Corr. / 100'	REMARKS
A - con't	180-186	11.28	11.33	+ .5	0.0	
	186-191	9.98	10.00	+ .2		
	191-193	5.33	5.33	0.0		
B	1-6	9.94	10.00	+ .6		
	6-11	10.62	10.67	+ .5		
	11-14	5.98	6.00	+ .2		
	15-20	9.94	10.00	+ .6		
	20-25	10.66	10.67	+ .1		
	25-29	9.26	9.33	+ .7		
	29-34	10.65	10.67	+ .2		
	34-39	9.92	10.00	+ .8		
	39-44	9.96	10.00	+ .4		
	44-48	9.98	10.00	+ .2		
	48-53	9.96	10.00	+ .4		
	53-58	10.65	10.67	+ .2		
	58-63	9.27	9.33	+ .6		
	63-69	9.94	10.00	+ .6		
	69-74	9.96	10.00	+ .4		
	74-79	9.32	9.33	+ .1		
	80-84	9.33	9.33	0.0		
	84-89	11.33	11.33	0.0		
	89-93	10.63	10.67	+ .4		
	93-97	10.00	10.00	0.0		
	97-101	10.65	10.67	+ .2		
	101-105	9.32	9.33	+ .1		
	105-110	11.32	11.33	+ .1		
	110-115	9.95	10.00	+ .5		
	115-120	9.96	10.00	+ .4		
	120-125	10.60	10.67	+ .7		
	125-129	9.33	9.33	0.0		
129-134	11.30	11.33	+ .3			
134-137	9.30	9.33	+ .3			
137-141	10.63	10.67	+ .3			
141-145	8.65	8.67	+ .2	0.0		

JCV

Ship BOWEN
P.O. Box 271, Newport, R.I.

29 September 1953.

TO: The Director,
U.S. Coast and Geodetic Survey,
Department of Commerce,
Washington 25, D.C.

SUBJECT: Levels and Tide Reducers.

REFERENCE: 22/MEK, S-2-BN. Instructions, 16 September 1953.

Enclosed herewith are four (4) volumes of Leveling Records for the Special Hydrographic Investigation, south of West Island, Buzzards Bay, Massachusetts.

The leveling record in Volume No. 3 was compiled from Volumes Nos. 1 and 2.

In Volume No. 2, on pages 30 to 33 inclusive, will be found the readings from the staff at Clark Point, New Bedford.

On pages 32 and 33 of Volume No. 3 will be found the elevations as compiled directly from the different bench marks. On pages 34 and 35, the results were obtained as Mr. Houlder computed them through T.P. #2.

Volume No. 4 contains elevations as run by Mr. Vance after the hydrography had been completed.

It is requested that tide reducers for the above project be mailed as soon as possible for the following dates.

23 September 1953 - 0700 to 1700.

24 September 1953 - 0700 to 1700.

Henry O. Fortin,
Comdr., USC&GS.
Commanding Ship BOWEN.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON 25


AND REFER TO NO. 36-rjb

2 October 1953

To: Commanding Officer
U.S.C. & G.S Ship BOWEN
P. O. Box 271
Newport, R. I.

Subject: Tide reducers

Enclosed for the periods listed in your letter of 29 September 1953 are hourly heights, referred to mean low water, for the reduction of soundings in the area south of West Island, Buzzards Bay. These heights are based on observed tides at Clark Point and can be used as tide reducers without further correction for either time or height of tide.


Acting Director

Enclosure

16 September 1953

To: Commanding Officer
USC&GS Ship BOWEN
P. O. Box 271
Newport, Rhode Island

Subject: SPECIAL HYDROGRAPHIC INVESTIGATION
SOUTH OF WEST ISLAND, BUZZARDS BAY,
MASSACHUSETTS

1. Prior to the end of the 1953 field season a hydrographic investigation shall be made in the vicinity of the dumping ground shown on chart No. 252, in latitude $41^{\circ} 34.5'$, longitude $70^{\circ} 49.5'$.
2. It is reported that a depth of about $6\frac{1}{2}$ feet now exists about 200 yards north of bell buoy No. 2. The purpose of the survey is to furnish new information on depths in the dumping-ground area.
3. The limits of the area to be surveyed are shown on a copy of chart No. 252, which is furnished.
4. The general spacing of sounding lines shall not exceed 100 meters. This line spacing shall be reduced where necessary to obtain the least depth on shoals, and to delineate the bottom configuration.
5. The least depth on shoals, which may be dangers to navigation, must be verified with the hand lead.
6. The survey shall be plotted on a copy of the latest print of chart No. 252. It is believed that there are sufficient charted objects in the vicinity to provide control for this survey. Copies of triangulation data in the vicinity are furnished.
7. Bell buoy No. 2 shall be located during the progress of the survey.
8. A tide staff shall be established at New Bedford (Clark Point), Buzzards Bay, and staff readings shall be recorded at half-hourly intervals during the time hydrography is in progress. The mean-low-water reading on the staff shall be obtained by connecting the tide staff with a minimum of three bench marks. A copy of the tidal data for Clark Point is furnished.

9. All work shall be in accordance with standard practices and the applicable operating manuals.

10. The records for this special investigation shall be processed and sent to the Washington Office at an early date after the field work is completed.

11. If at any time it appears advisable that the instructions contained in this letter be modified, you will submit your recommendations to this office.

12. You will please acknowledge the receipt of this letter.

(Signed) R.F.A. Studds

Director.

cc. Supervisor, Southeastern District
Supervisor, Northeastern District
Chart Division (83)
Tides & Currents Division (30 & 36)

RK

829

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~DIVISION OF HYDROGRAPHY AND TOPOGRAPHY~~

January 4, 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
2 volumes of sounding records for

~~HYDROGRAPHIC SHEET~~ F E No. 9 1953

Locality Buzzards Bay, Massachusetts

Chief of Party: H. O. Fortin in 1953
Plane of reference is mean low water, reading
2.4 ft. on tide staff at New Bedford (Clark Point)
9.5 ft. below B. M. 7 (1931)

Height of mean high water above plane of reference is 3.7 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Section of Tides

Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. F.E., No. 9, 1953

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
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										23
										24
										25
										26
										27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F.E.No.9,1953

Records accompanying survey:

Chart 252 used

Boat sheets ^{as a boat} _{sheet}, sounding vols. 2....; wire drag vols.; bomb vols.; graphic recorder rolls 1. Eny; special reports, etc. 1 Descriptive Report;.....

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

Number of positions on sheet	.....	404	
Number of positions checked	.....	72	
Number of positions revised	.....	6	
Number of soundings revised (refers to depth only)	.....	-
Number of soundings erroneously spaced	.....	-
Number of signals erroneously plotted or transferred	.....	-
Topographic details	Time	.....	-
Junctions	Time	.....	6
Verification of soundings from graphic record	Time	.....	2
(Including preparation of tracing and partial replotting) <i>W. E. ...</i>	Total time	.....	40
Verification by.....	Date	.....	4/27/56
Reviewed by. <i>W. E. ...</i>	Time	.....	14
	Date	.....	5/2/56

REVIEW OF FIELD EXAMINATION NO. 9 (1953)

1. The purpose of this field examination was to determine the present depths in the dumping ground southeast of New Bedford, Massachusetts. A report (Cl-802/1953) of 6 $\frac{1}{2}$ -ft. depths 100 yards north of Bell Buoy No. 2 in lat. 41°34.2', long. 70°48.8' led to this examination of the dumping-ground area.
2. The sources of the control are given in the Descriptive Report. No shoreline is involved.
3. The field plotting was done using a copy of Chart 252 for the boat sheet. A tracing was made from the boat sheet during verification, and most of the positions pricked directly from the field plotting. The positions of least depths and positions not clearly identifiable in the congested parts of the boat sheet were replotted. Soundings with final reducers applied were inked on the tracing from the sounding volumes.
4. Comparison with Prior Surveys

H-5882 (1935), 1:10,000	H-2308 (1897), 1:10,000
H-5883 (1935), 1:10,000	<u>H-2229 (1895), 1:10,000</u>
<u>H-2901b (1907), 1:20,000</u>	

These surveys comprise the last complete prior coverage of the area of the present survey. A comparison between them and the present examination reveals considerable change in the bottom, as would be expected in a dumping ground. In addition to the shoaling from dumping it is probable that the present fathometer survey picked up some peaks that were missed in the prior leadline work in this area where sharp, pinnacle rocks abound. The following examples show the lesser depths which generally prevail on the present survey:

<u>Prior depth (ft.)</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Present depth (ft.)</u>
24-28	41°34.05'	70°50.1'	17 ✓
24	41°34.15'	70°49.95'	19 ✓
19	41°34.4'	70°50.0'	16 ✓
17-19	41°34.2'	70°48.85'	13 ✓
34	41°34.0'	70°49.6'	29 ✓
17	41°34.57'	70°49.4'	12 ✓

Several least depths have been carried forward from the prior surveys as, in this area of sharp pinnacles, the development of the present survey does not disprove the lesser depths. In addition to the soundings carried forward, adjoining soundings from the prior surveys of 1935 have been shown on the tracing, and depth curves carried to a smooth junction, to facilitate chart correction.

The present development of West I. Ledge in lat. 41°34.3', long. 70°50.3' is not complete. With the exception of that

area, and with the addition of the soundings carried forward, this field examination supersedes the prior surveys within the common areas.

5. Comparison with Chart 252 (latest print date 6/8/53)

A. Hydrography

No soundings are charted in much of the area of the present survey. Those charted are from the prior surveys previously discussed. The following notes are also charted:

(1) The note "least depth 14 ft. Sept. 1953" applied as a hand correction from the boat sheet of this field examination.

(2) The note "shoaling reported" added by hand correction north of Bell Buoy No. 2 on authority of Cl-802 (1953).

The present survey is adequate to supersede the charted information.

B. Aids to Navigation

Bell Buoy No. 2, charted in lat. $41^{\circ}34.06'$, long. $70^{\circ}48.82'$, was found by the present survey to be approximately 300 meters W N W of its charted position. There are no other aids to navigation charted within the area of the present survey.

6. This field examination is considered to be basic. However, in view of the prevalence of pinnacle rocks a wire drag survey would be required to establish the least depths beyond question, particularly in the ledge area in the vicinity of lat. $41^{\circ}34.4'$, long. $70^{\circ}49.9'$.

L. V. Evans III

Inspected by - R. H. Carstens

TIDES: HOURLY HEIGHTS

Station: Buzzards Bay (south of West Island) Mass. Year: 1953
 Observer: _____ Lat. _____ Long. _____
 Time Meridian: 75°W Height datum is MLW which is _____ ft. below B. M.

16-47802-1 U. S. GOVERNMENT PRINTING OFFICE

Month and Day	mo.	d.	d.	d.	d.	d.	d.	d.	d.	Horizontal Sum
Sept.	23	24								
Hour	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet
0	.	.	.	.	.	.	.	.	.	.
1	.	.	.	.	.	.	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.
3	.	.	.	.	.	.	.	.	.	.
4	.	.	.	.	.	.	.	.	.	.
5	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	.	.	.	.	.	.
7	4.9	4.4	.	.	.	.	.	.	.	.
8	4.7	5.0	.	.	.	.	.	.	.	.
9	3.6	4.7	.	.	.	.	.	.	.	.
10	1.9	3.5	.	.	.	.	.	.	.	.
11	0.5	1.7	.	.	.	.	.	.	.	.
Noon	-0.4	0.2	.	.	.	.	.	.	.	.
13	-0.8	-0.6	.	.	.	.	.	.	.	.
14	-0.9	-1.0	.	.	.	.	.	.	.	.
15	-0.6	-0.8	.	.	.	.	.	.	.	.
16	0.2	-0.4	.	.	.	.	.	.	.	.
17	1.2	0.5	.	.	.	.	.	.	.	.
18	.	.	.	.	.	.	.	.	.	.
19	.	.	.	.	.	.	.	.	.	.
20	.	.	.	.	.	.	.	.	.	.
21	.	.	.	.	.	.	.	.	.	.
22	.	.	.	.	.	.	.	.	.	.
23	.	.	.	.	.	.	.	.	.	.
Sum	.	.	.	.	.	.	.	.	.	.

Sum for _____ = _____ Divisor = (28d) 672; (29d) 696; (30d) 720; (31d) 744. Mean for month = _____

Tabulated by _____ Date _____ Summed by _____ Date _____

TIDES: HOURLY HEIGHTS

Station: _____ Year: _____
 Observer: _____ Lat. _____ Long. _____
 Time Meridian: _____ Height datum is _____ which is _____ ft. below B. M. _____

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Month and Day	mo.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	Horizontal Sum
Day of Series												
Hour	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet	Feet
0
1
2
3
4
5
6
7
8
9
10
11
Noon
13
14
15
16
17
18
19
20
21
22
23
Sum

Sum for _____ = Divisor = (28d) 672; (29d) 696; (30d) 720; (31d) 744. Mean for month = _____

Tabulated by _____ Date _____ Summed by _____ Date _____

F. E. No. 9 (1953)

MASS.

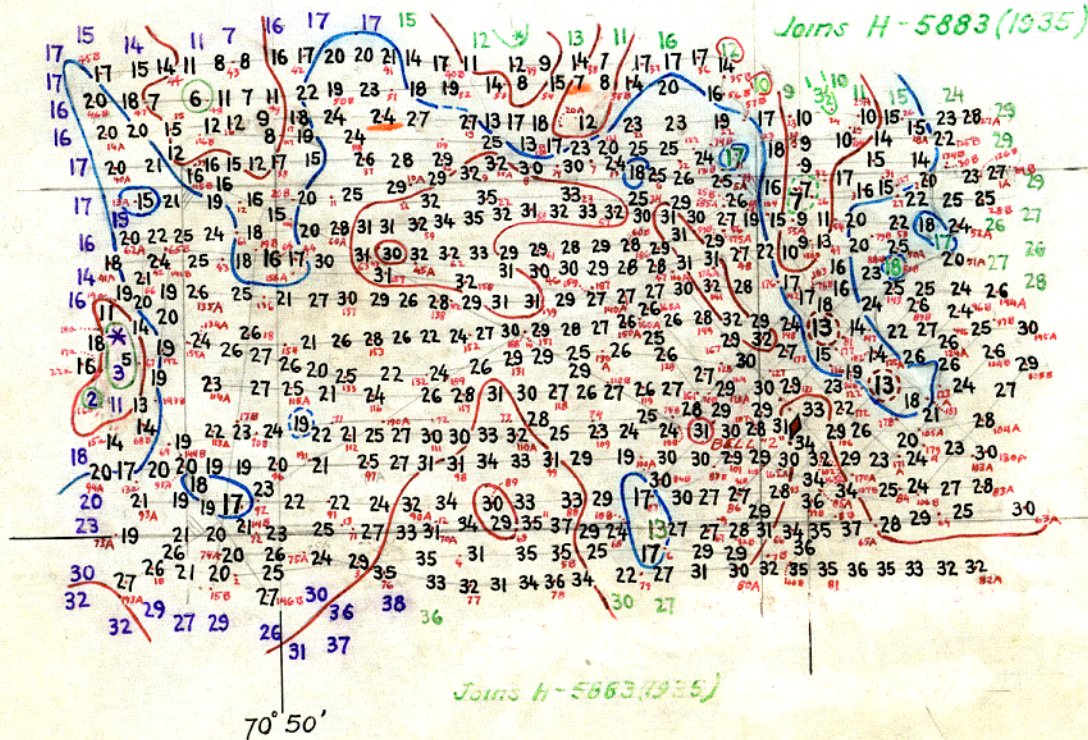
BUZZARDS BAY
SOUTH OF WEST ISLAND

Scale 1:20,000

Sept. 1953

Soundings in feet at mean low water
N.A. 1927 Datum

Joins H-5882 (1935)



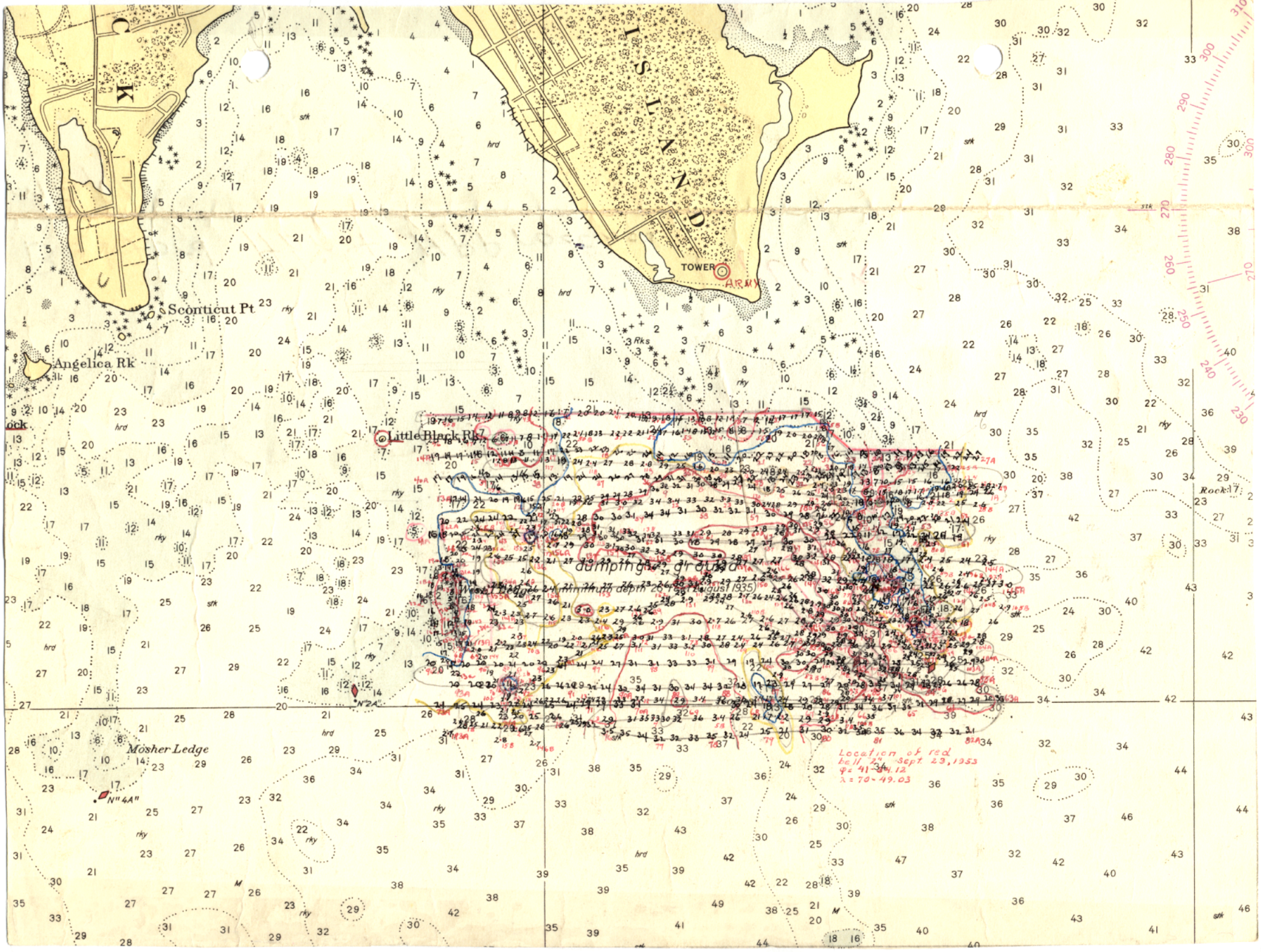
Joins H-5883 (1935)

Joins H-5883 (1935)

41° 34'

70° 48'

70° 50'



K

LONG ISLAND SOUND

TOWER ARMY

Scoutcut Pt

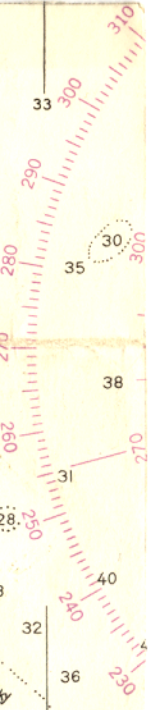
Angelica Rk

Little Black Rk

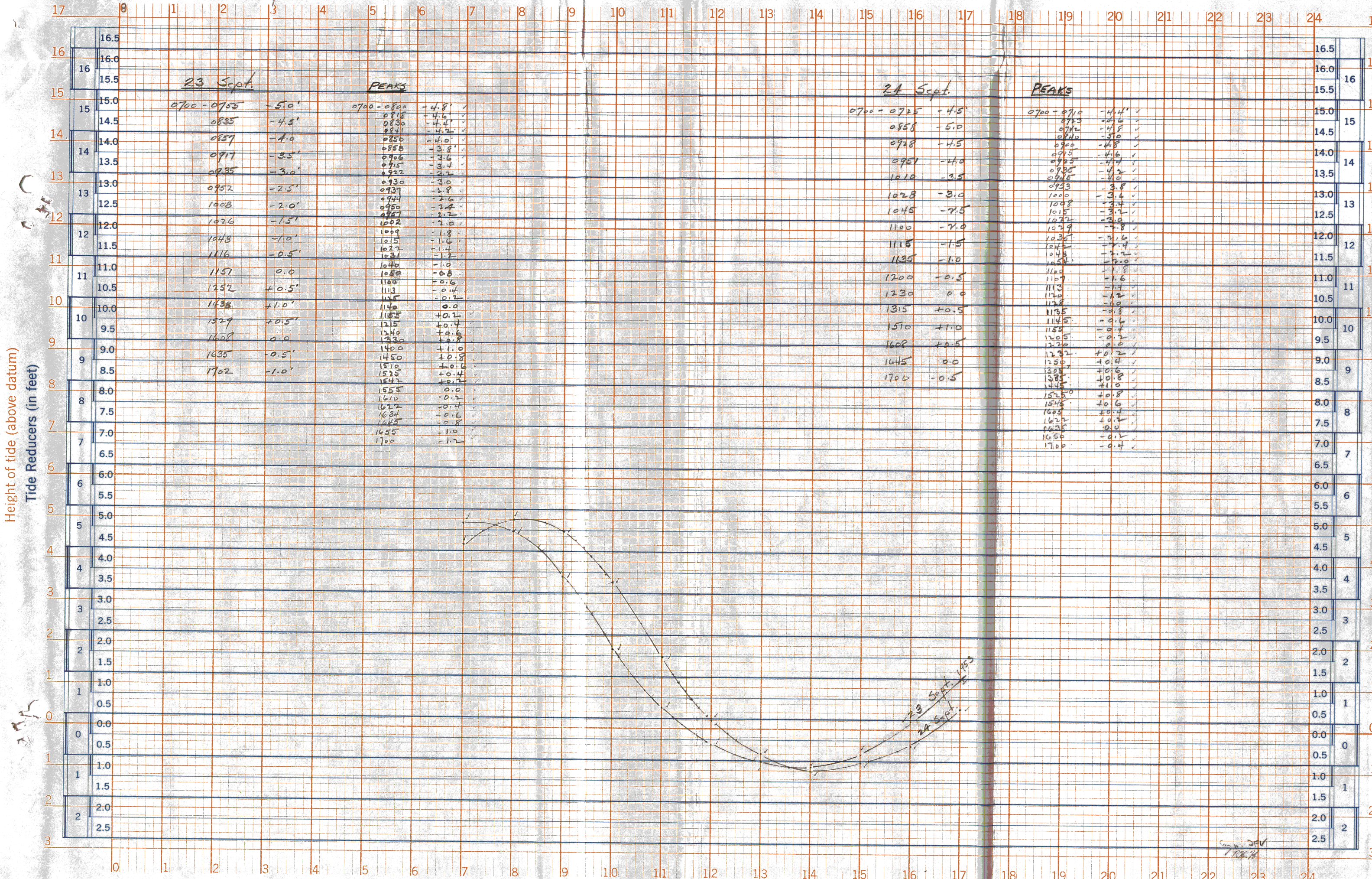
dumplings

Mosher Ledge

Location of red bell 23 Sept. 23, 1933
42° 41' 34.12" N
x = 70-49.03



GRAPH FOR TIDE REDUCERS (FATHOMS) (FEET)



Comp. JAV
T.R.K.H.

BAR CHECK

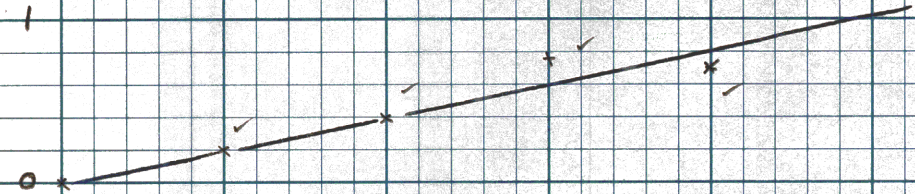
FATH. #157 SPX

WEST ISLAND

9/22/53

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10 20 30 40 50 60
2



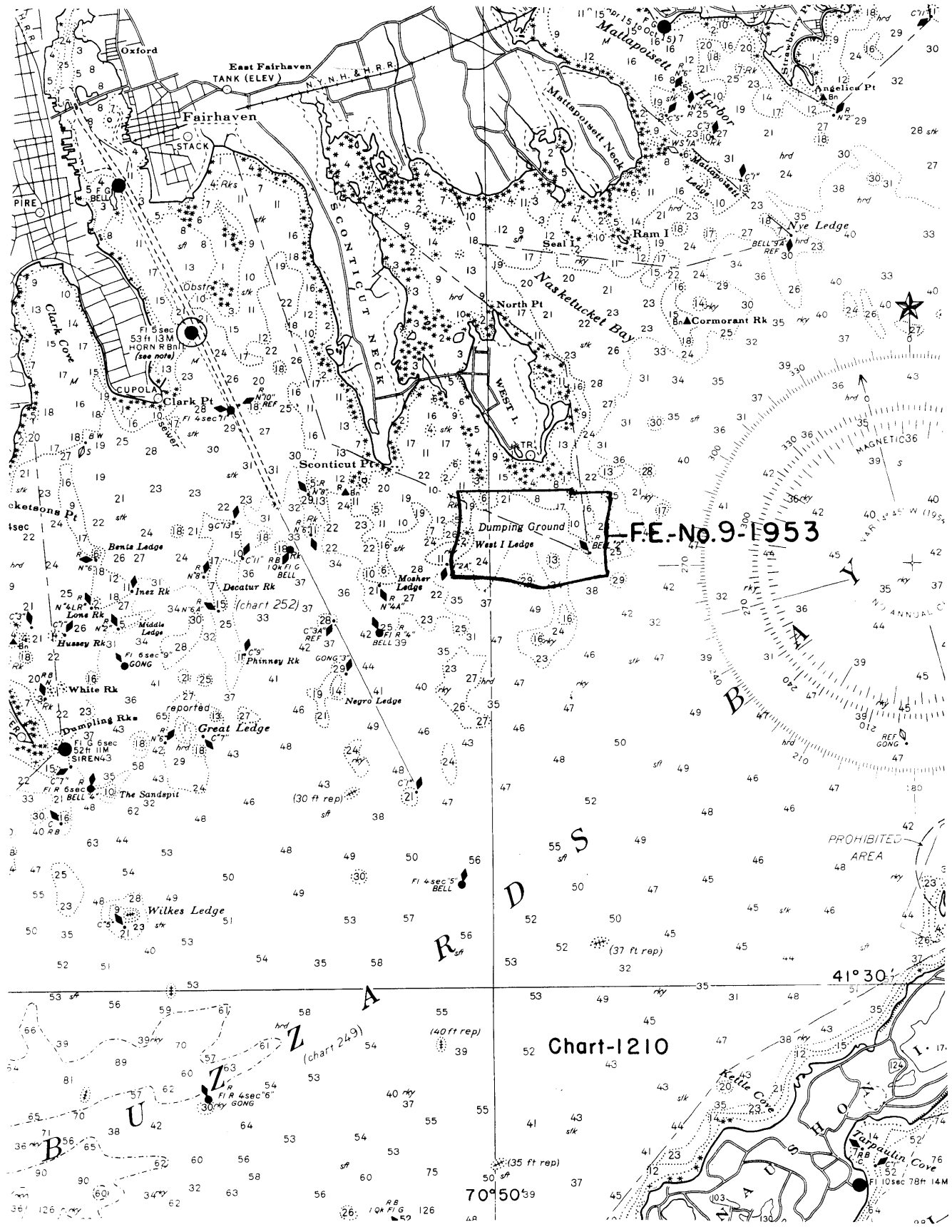
A Scale

0 to 12' ✓
+0.5 to 38' ✓
+1.0 to 55' ✓

PEAKS

0 to 3' ✓
+0.2 to 14' ✓
+0.4 to 24' ✓
+0.6 to 34' ✓
+0.8 to 44' ✓
+1.0 to 54' ✓

Comp. HOF
✓ DEV



F.E.-No.9-1953

Chart-1210

70°50'39"

41°30'

NAUTICAL CHARTS BRANCH

SURVEY NO. E.E.No.9,1953

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
<i>May 1954</i>	<i>249</i>	<i>Eaton</i>	Before After Verification and Review
<i>6-11-54</i>	<i>1210</i>	<i>R.K. McLawder</i>	<i>Part. appl.</i> Before After Verification and Review <i>same chrt 249</i>
<i>2-7-55</i>	<i>252</i>	<i>H. S. Family</i>	Before After Verification and Review
<i>11-17-61</i>	<i>1210 Rec.</i>	<i>R. S. House</i>	<i>fully appl'd</i> 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

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.