

# FE 114

Diagram No. 6380-2

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. .... L.J.-05153.....  
Office No..... FE-114.....

### LOCALITY

State ..... Washington.....  
General Locality .. Fidalga Bay.....  
Locality ..... Anacartes.....

1953

CHIEF OF PARTY  
K.S. Utm.....

### LIBRARY & ARCHIVES

DATE ..... July 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 in the new format is the actual date of survey. This material was previously registered as; FE No.4 1953

FE114

# FE No. 4 1953

FE-114

Diag Cht. No. 6380-2

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC  
Field No. L.J.-05153 Office No. F.E.No.4(1953)

### LOCALITY

State WASHINGTON  
General locality FIDALGA BAY  
Locality ANACARTES

194/53

CHIEF OF PARTY

K. S. Ulm

LIBRARY & ARCHIVES

DATE JULY, 1953

B-1870-1 (1)

FE No. 4  
1953

22  
14  
83

JUN 30 1953

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: USC&GSS LESTER JONES - FRIDAY HARBOR, WASHINGTON

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

23 June 1953

To: The Supervisor, Northwestern District  
U.S. Coast & Geodetic Survey  
705 Federal Office Bldg.,  
Seattle 4, Washington

Subject: Field Examination in Vicinity of March Point, Anacortes,  
Washington.

In accordance with your verbal instructions and authorization of the Director in letter dated 10 June 1953 a field examination in the vicinity of March Point, Washington was accomplished between the 18th and 20th of June 1953.

CONTROL:

The following triangulation stations were recovered and used for control of the hydrography:

- HAT SOUTHWEST<sub>2</sub> - 1939
- MARCH POINT LIGHT - 1939
- MARCH POINT<sub>2</sub> - 1939

TIDES:

A tide staff was established at Anacortes, Fidalgo Island, Washington and connected to three bench marks by spirit levels. MLLW on the staff was determined as 2.34'. During hydrography the staff was read at half hourly intervals. A tide curve was drawn from the staff readings and tide reducers were entered to the nearest 0.2 foot and checked in the sounding volume.

FATHOMETER CORRECTIONS:

Fathometer corrections were determined from bar checks and phase comparisons. These corrections were entered to the nearest 0.2 foot and checked in the sounding volume.

HYDROGRAPHY:

Hydrography was accomplished, in general, between Latitudes 48°-30.25' and 48°-30.6' and Longitudes 122°-33.5' and 122°-34.2'. In some instances a heavy trace appeared on the fathogram which was interpreted as heavy grass. This was verified by several handlead soundings.

Cross lines were run and soundings on crossings were in agreement.

COMPARISON WITH SURVEY H-4738:

In general the soundings from the field investigation agreed within 2 feet with soundings from Survey H-4738. In most cases the soundings when not in agreement were found to be shoaler on the present field investigation.

RECORDS:

Soundings on the boat sheet have been reduced for tides and fathometer corrections and inked to integral feet. Reducers for tides and fathometer corrections have been entered and checked in the sounding volume. Also soundings have been reduced and check in the sounding volume.

The following records are submitted.

- 1 - Boat Sheet No. LJ-05153
- 1 - Sounding Volume
- 1 - Level Volume
- 1 - Sheet tide reducers
- 2 - Sheets fathometer reducers
- 2 - Triangulation recovery notes
- 1 - Photostat section of Hydrographic Survey H-4738
- 1 - Tide Volume
- 2 - Fathograms

*Forwarded: 9 July 1953*

*Charles Pierce*

*Kenneth S. Ulm*  
Kenneth S. Ulm,  
Commander, C&GS  
Comdg., Ship LESTER JONES

1st Indorsement NW District 9 July 1953  
To: The Director, U.S.Coast and Geodetic Survey, Wash. D.C.

1. The records of the field examination off March Pt. Padilla Bay, executed by the Lester Jones are herewith forwarded.
2. No smooth plot of this field examination was made since the positions were plotted with care on the boat sheet and soundings were reduced for tide and index correction.
3. Several ~~xxx~~ prints of a tracing of the boat sheet were forwarded to the Shell Oil Co. attention of Mr. W.F.Court, on the 1st of July 1953.

*Charles Pierce*  
Charles Pierce  
Supervisor NW District

		A			B				
		12	30	42	42	Diff.			
- 1	}	12.5 ✓	30.2 ✓	42.0 ✓	41.8 ✓	0.2 ✓			
		12.5 ✓	30.0 ✓	42.0 ✓					
. 2	}	12.3 ✓	29.8 ✓	41.9 ✓	41.4 ✓	0.5 ✓			
				41.8 ✓	41.3 ✓	0.5 ✓			
				41.7 ✓	41.3 ✓	0.4 ✓			
				42.0 ✓	41.1 ✓	0.9 ✓			
		12.3 ✓	29.9 ✓	41.8 ✓	41.2 ✓	0.6 ✓			
3	}	12.2 ✓	30.0 ✓	42.0 ✓	41.3 ✓	0.7 ✓			
				42.0 ✓	41.3 ✓	0.7 ✓			
				42.0 ✓					
		12.3 ✓	30.0 ✓	42.0 ✓					
		21							
Mean		12.35 ✓	29.98 ✓	41.93 ✓		0.0 ✓	} From Comparisons, Page 4.		
		12.00				0.5 ✓			
		- 0.35 ✓	+ 0.02 ✓	+ 0.07 ✓		0.5 ✓			
						0.3 ✓			
						0.3 ✓			
						0.6 ✓			
					14	0.67			
						0.5 ✓			

✓ JEG

246

### TIDE NOTE FOR HYDROGRAPHIC SHEET

27 July 1953

~~DIVISION OF Coastal Surveys:~~

Division of Charts: R. H. Carstens

Plane of reference approved in  
1 volume of sounding records for

~~HYDROGRAPHIC SHEET~~ F. E. No. 4 1953

Locality: Fidalgo Bay, Washington

Chief of Party: K. S. Ulm in 1953  
Plane of reference is mean lower low water, reading  
2.4 ft. on tide staff at Anacortes  
21.8 ft. below B. M. 11 (1934)

Height of mean high water above plane of reference is 7.4 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. 4 ( 1953 )

Name on Survey											
	A	B	C	D	E	F	G	H	K		
											1
											2
											3
											4
											5
											6
											7
											8
											9
											10
											11
											12
											13
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											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F.E.No. 4. (1953)

Records accompanying survey:

Boat sheets ...<sup>1</sup>...; sounding vols. ...<sup>1</sup>...; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls <sup>1</sup> Env.;

special reports, etc. <sup>1</sup> Print from Tracing of Boatsheet; (<sup>1</sup> Sheet Tide Reducers, <sup>2</sup> Sheet Fathometer Reducers, <sup>1</sup> Photostat Section of H-4738, Report to the Supervisor are contained in the Descriptive Report).....

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

Number of positions on sheet	.....	162
Number of positions checked	.....	6
Number of positions revised	.....	0
Number of soundings revised (refers to depth only)	.....	0
Number of soundings erroneously spaced	.....	0
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	..... <sup>1 hr.</sup>

Verification by... *J.A. Winsmore* ..... Total time <sup>8</sup>..... Date <sup>29 July 1953</sup>.....

Reviewed by... *J.A. Winsmore* ..... Time <sup>4</sup>..... Date <sup>30 July 1953</sup>.....

REVIEW OF FIELD EXAMINATION NO. 4 1953

1. The origin of the signals, the reduction and smooth plotting of the soundings is covered in the Descriptive Report. The smooth plot has been cut to filing size and is enclosed in the Descriptive Report.
2. A comparison with prior survey H-4738 (1927), scale 1:5,000, reveals only minor changes in bottom. Present depths are generally in agreement or 1-2 ft. shoaler than the prior depths. Along the steep slope southwest of March Point Light, greater differences are noted such as the prior depth of 44 ft. falling in present depths of 39 ft. in lat.  $48^{\circ} 30.56'$ , long.  $122^{\circ} 33.70'$ . However, such differences occurring on a slope are unimportant and are probably caused by the prior handlead soundings being slightly out of position or being too deep because of a bight in the leadline. Within the common area, the present soundings are adequate to supersede the prior survey.
3. Charted hydrography on Chart 6376 (print date 4-14-52) originates with the previously mentioned survey. This field examination is adequate to supersede the charted information.

T. A. Dinsmore  
30 July 1953

Inspected by:

R. H. Carstens

4.6 to 09.00 ✓  
 4.8 to 09.30 ✓  
 5.0 to 10.00 ✓  
 5.2 to 11.12 ✓  
 5.0 to 12.00 ✓  
 4.8 to 12.36 ✓

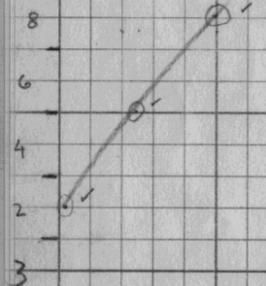
4.6 to 13.09 ✓  
 4.4 to 13.36 ✓  
 4.2 to 14.03 ✓  
 4.0 to 15.30 ✓  
 4.2 rest day ✓

✓ C.A.S.



3.2 to 08.10 ✓  
 3.4 to 08.30 ✓  
 3.6 to 08.48 ✓  
 3.8 to 09.12 ✓

✓ C.A.S.



19 June

Time	Staff	MLL	Wen	Staff
08:24	6.9	2.3		4.6
08:30	6.9	↑		4.6
09:00	7.0			4.7
09:30	7.1			4.8
10:00	7.4			5.1
10:30	7.4			5.1
10:44	7.5			5.2 H.W
11:00	7.4			5.1
11:30	7.3			5.0
12:00	7.2			4.9
12:30	6.9			4.6
13:00	6.8			4.5
13:30	6.7			4.4
14:00	6.5			4.2
14:30	6.2			3.9
14:38	6.2			3.9
15:00	6.4			4.1
15:30	6.4			4.1
16:00	6.5	2.3	↓	4.2

20 June

08:04	5.5 ✓	2.3 ✓	3.2 ✓
08:30	5.8 ✓	2.3 ✓	3.5 ✓
09:00	6.1 ✓	2.3 ✓	3.8 ✓

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

"A" SCALE

"B" SCALE

"A" SCALE

FROM	TO	CORR.
0.0 ✓	10.7 ✓	(-) 0.4 ✓
10.8 ✓	23.9 ✓	(-) 0.2 ✓
24.0 ✓	40.4 ✓	(+-) 0.0 ✓
40.5 ✓	59.0 ✓	+ 0.2 ✓

"B" SCALE

FROM	TO	CORR.
32.0 ✓	49.5 ✓	+ 0.6 ✓
49.6 ✓	69.1 ✓	+ 0.8 ✓
69.2 ✓	90.0 ✓	+ 1.0 ✓

+0.2

+0.1

0.0

-0.1

-0.2

-0.3

-0.4

+1.1

+1.0

+0.9

+0.8

+0.7

+0.6

+0.5

+0.4

+0.3

+0.2

0

6

12

18

24

30

36

42

48

54

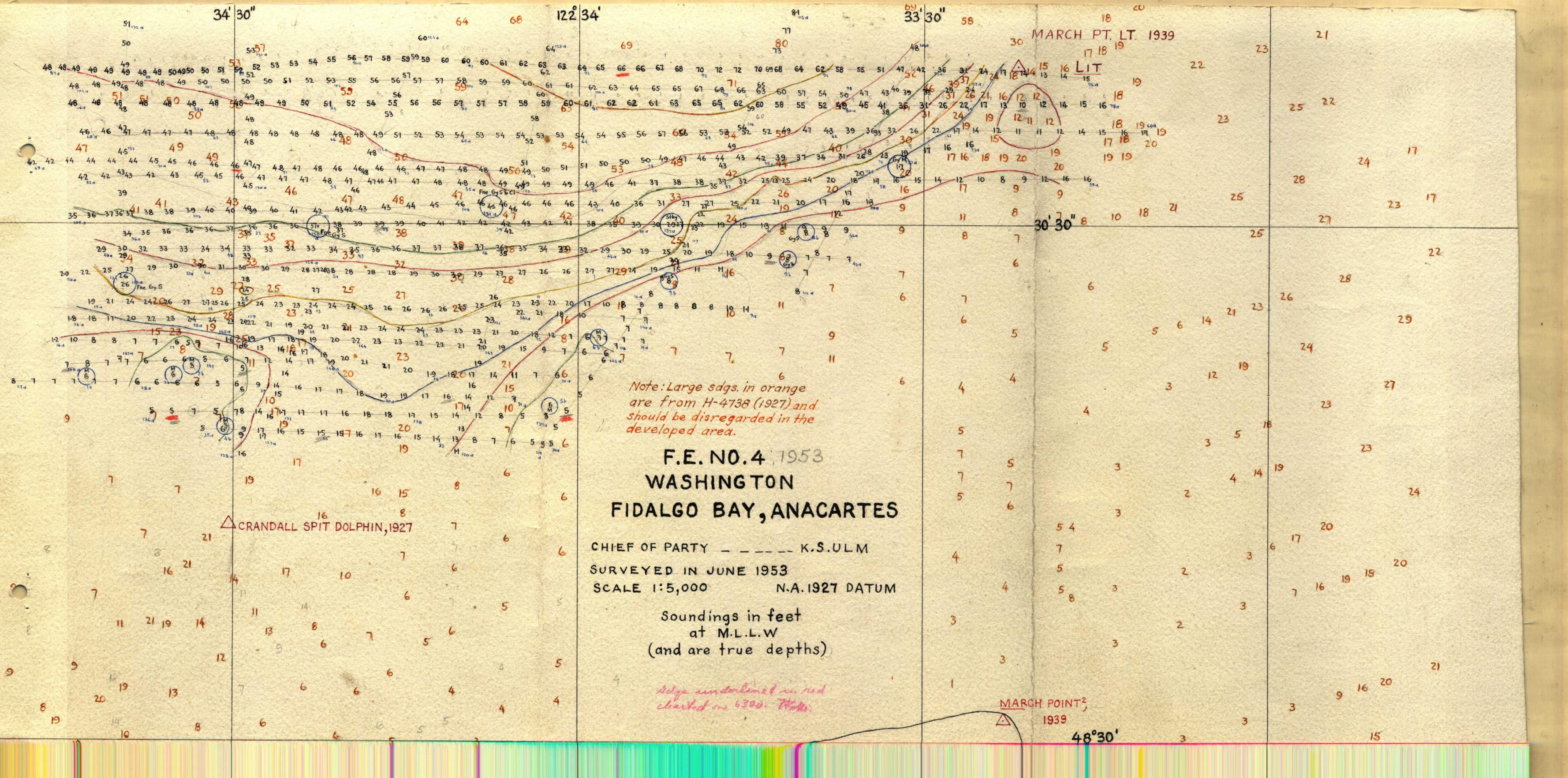
60

70

80

90

JEG



MARCH PT. LT. 1939

LIT

Note: Large sdgs. in orange  
are from H-4738 (1927) and  
should be disregarded in the  
developed area.

**F.E. NO. 4, 1953**  
**WASHINGTON**  
**FIDALGO BAY, ANACARTES**

CHIEF OF PARTY - - - - - K.S. ULM  
SURVEYED IN JUNE 1953  
SCALE 1:5,000 N.A. 1927 DATUM

Soundings in feet  
at M.L.L.W  
(and are true depths)

*sdgs. unadorned in red  
charted on 6300. H.M.S.*

MARCH POINT<sup>s</sup>  
1939

48°30'

34'30"

122°34'

33'30"

△ CRANDALL SPIT DOLPHIN, 1927

30'30" B

