

# 8285 WIRE DRAG

Diag. Cht. Nos. 8502-2 and 8554-2

<p>Form 504</p> <p>U. S. COAST AND GEODETIC SURVEY</p> <p>DEPARTMENT OF COMMERCE</p> <p>DESCRIPTIVE REPORT</p>	
Type of Survey	WIRE DRAG
Field No.	EX-1156
WOffice No.	H-8285 W.D.
LOCALITY	
State	Alaska
General locality	Cook Inlet
Locality	Seldovia Bay
<u>194</u> 56	
CHIEF OF PARTY	
George A. Nelson	
LIBRARY & ARCHIVES	
DATE	December 11, 1956

8285  
WIRE DRAG

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-8285 WD

Field No. EX-1156 WD

State Alaska

General locality Cook Inlet

Locality Seldovia Bay

Scale 1:10,000 Date of survey May 1956

Instructions dated 30 November 1955, 21 December 1955

Vessel EXPLORER

Chief of party George A. Nelson

Surveyed by F. R. Gossett, E. F. Hicks, Jr.

Soundings taken by fathometer, graphic recorder, hand lead, wire

Fathograms scaled by

Fathograms checked by

Protracted by M. D. Christensen

Soundings penciled by

~~Soundings~~ Drag Depths ~~fathoms~~ feet at ~~XXXX~~ MLLW and are true depths

REMARKS: Overlays attached

See tabulation of verified soundings, groundings and clearance data and Preverification Notes following the Verifier's Report check-list in this D.R. N.W.W. 8-25-76 RHC 8/24/76

*RE*

DESCRIPTIVE REPORT TO ACCOMPANY

WIRE DRAG SURVEY H-8285 WD - FIELD NO. EX-1156 WD

SCALE 1:10,000

Ship EXPLORER

G. A. Nelson, Comdg.

Surveyed by F. R. Gossett and E. F. Hicks, Jr.

A. PROJECT: This survey was executed as part of project 13800 under instructions dated 30 November 1955 and supplemental instructions dated 21 December 1955.

B. SURVEY LIMITS AND DATES: The area included the channel approach to and the vicinity of the dock in Seldovia Bay, Alaska.

Dragging operations were started 16 May 1956 and were completed 23 May 1956.

C. VESSEL AND EQUIPMENT: The standard wire drag was used with two of the EXPLORER motor launches towing the drag. A third motor launch was used as testing tender and the whale boat was used as setting tender. It was found advisable to use two tenders as it was necessary to keep the drag near the bottom in most places to obtain effective depth required. This involved frequent shifting of the buoys on account of the range of tide at Seldovia.

The wire drag tester was made so that the rod extended below the depth set and the distance measured after each test was the amount of lead remaining on the rod so that the distance measured, added to the setting of the tester, gave the effective depth of the drag. The tester was a free floating tester which was dropped ahead of the drag and picked up after the drag passed.

D. TIDE STATION: A portable automatic tide gage was maintained on the Standard Oil Company pier 14 May - 6 June 1956. Readings from this gage were used to correct for tide. The plane of reference on staff was furnished by the office.

E. SMOOTH SHEET: The smooth sheet was made by hand aboard the Ship EXPLORER. The shoreline was transferred by blue line bromoil furnished by the Washington office.

F. CONTROL STATIONS: All control was computed from theodolite cuts from a scheme of triangulation executed by this party.

G. SHORELINE AND TOPOGRAPHY: The shoreline and topography originated from photogrammetric survey, manuscripts T-9566 and T-8482.

The field inspection was made by this party and manuscripts furnished by the Washington office.

H. SOUNDINGS: All soundings, other than those indicated by bobbing of a buoy or temporary grounding of drag--these being circled in green on the sheet, were made with either lead line or 808 portable depth recorder.

I. CONTROL OF DRAGGING: The drag was controlled by standard methods using visual sextant angles on shore objects.

J. ADEQUACY OF SURVEY: This survey is complete and adequate and complies with project instructions except that at a few places the project depth of 18 feet was not obtained. This was caused by use of predicted tides which were slightly in error and preliminary determination gave a depth of 18 feet which, when smooth-plotted, reduced to 17 feet. These places are at the following locations:

Lat 59 26.45      Long 151 43.40

Lat 59 26.50      Long 151 43.25

Lat 59 26.40      Long 151 43.19 (Just south of this

small triangle there was a narrow segment in the 19 foot area in which the 19 foot overlap was very small but was covered by 17)

Lat 59 26.10      Long 151 43.35

Lat 59 26.25      Long 151 43.30 At this spot there

is a shoal which could not be cleared with 18 feet although no tender sounding of this depth could be obtained. It was cleared at 17 feet.

There is a small holiday at Lat 59 27.40, Long 151 43.30, but this lies outside the project area.

The project depth of 18 feet was not obtained in vicinity of buoy C3, Lat 59 26.50, Long 151 43.20, but the rock southeast of this buoy and the limited access to the channel east of the buoy precludes the use of this channel by larger vessels and it was not considered practical to attempt to drag this channel deeper.

At Lat 59 26.38, Long 151 43.30 there is an 18 foot sounding, circled in green, which was later cleared with 19 feet. This sounding, which came from bobbing of buoy, should be greater than 18 feet as the bottom of the weight when drag is set at 18 feet is actually about 19 or 19½ feet below water surface since the ground wire is fastened to top of the weight. All soundings circled in green are actually in error by this amount but the error is on the safe side and they were not corrected for this. The lift test corresponding to the time of this grounding indicates sag resulting in an effective grounding depth of 20 ft. which is consistent with the 19 ft. clearance.

L. COMPARISON WITH PRIOR SURVEYS: This survey was compared with survey No. 2930 (a) 1908, and in general fair agreement was found. A slight displacement of soundings on peaks missed on original survey due to irregular bottom could account for any soundings shoaler than those obtained on the original survey.

M. COMPARISON WITH CHART: The survey was compared with chart 8589, third edition, last print date 18 June 1951.

The 15 foot sounding at Lat 59 26.27, Long 151 43.27 was cleared with 17 feet and should be changed to 17.

The ~~reputed~~ 12 foot <sup>9f</sup> sounding at Lat 59 26.47<sup>8</sup>, Long 151 43.15<sup>6</sup> was cleared with 13 feet and a 13 foot sounding was obtained.

The charted 18 foot sounding at Lat 59 27.37, Long 151 43.38 is probably correct; it lies slightly outside the dragged area, but a 15 foot sounding was found just east of this position. It was cleared with effective depth of 15<sup>3</sup> feet. This is in an area where kelp is charted. Slight indications of this kelp were noted and it is believed this discrepancy is due to inadequacy of original survey in this area. The 15 foot sounding should be charted.

*There seems to be some discrepancy between the smooth sheet and this statement.  
15 ft. cleared by 13 ft. on smooth sheet  
Dew*

N. DANGERS AND SHOALS: No uncharted dangers and shoals other than those mentioned above were found.

P. AIDS TO NAVIGATION: Two fixed aids to navigation, Seldovia Entrance Light and Gray Cliff Light, are within the limits of this survey. Both have been reported on Form 567.

Four floating aids to navigation are within the limits of this survey:

- Seldovia Entrance Buoy 1, Black can, Lat 59 27.00, Long 151 43.34; Located Vol. 3, page 5
- Seldovia Entrance Buoy 2, Red nun, Lat 59 26.75, Long 151 43.32; Located Vol. 3, page 5
- Watch Point Shoal Buoy 3, Black can, Lat 59 26.48, Long 151 43.24; Located Vol. 3, page 6
- Seldovia Buoy 4, Red nun, Lat 59 25.95, Long 151 43.36; Located Vol. 3, page 4

U. MISCELLANEOUS: A small amount of hydrography was run in area east of buoy 3. This is recorded in Vol. 3, but was not plotted as it was run for information prior to dragging in the area to determine extent of the reported 12 foot shoal and this shoal was found to be very small in area.

Z. TABULATION OF APPLICABLE DATA: Triangulation records and computations forwarded to office 1 & 5 September 1956.

Photogrammetric data forwarded to office 17 & 30 July 1956.

Tidal records forwarded to office 7 June 1956.

Form 567 forwarded to office 15 June 1956

Respectfully submitted,

*Edgar F. Hicks, Jr.*  
Edgar F. Hicks, Jr.  
Commander, C&GS

STATISTICS FOR SURVEY H-8285 WD

Wire Drag

<u>Day</u>	<u>Date</u>	<u>Naut. Miles</u>	<u>Pos.</u>
a	16 May	1.60	59
b	17 May	2.38	65
c	18 May	2.12	74
d	19 May	2.20	73
e	21 May	1.95	62
f	23 May	<u>0.68</u>	<u>28</u>
		10.93	361

Tender

<u>Day</u>	<u>Date</u>	<u>Lo.L. Sdgs.</u>	<u>Pos.</u>
a	16 May	5	9
b	17 May	11	13
c	18 May	4	5
d	19 May	5	9
e	21 May	3	5
f	23 May	<u>0</u>	<u>5</u>
		28	46

Area dragged - 0.3 square nautical mile

TIDE NOTE

SURVEY H-8285 WD

Portable automatic tide gage

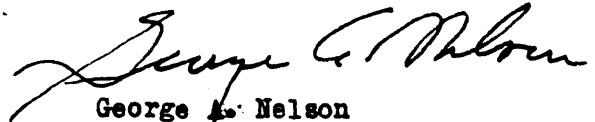
Latitude 59 26.4

Longitude 151 43.2

Plane of MLLW on staff is 5.1 feet

APPROVAL SHEET

The sheet and records for Survey H-3285 WD have been examined  
and are approved.



George A. Nelson  
Captain, C&GS  
Commanding Ship EXPLORER



GEOGRAPHIC NAMES

Survey No. H-8285 W.D.

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
<u>Alaska</u>		}	for title									1
<u>Cook Inlet</u>												2
<u>Seldovia Bay</u>												3
<u>Seldovia</u>												4
			(tide station)									5
											6	
											7	
			Names approved									8
			1-16-57. L. Heck.									9
											10	
			If additional names are									11
			desired, all on chart 8589									12
			are approved.									13
											14	
											15	
											16	
											17	
											18	
											19	
											20	
											21	
											22	
											23	
											24	
											25	
											26	
											27	

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8285.W.D.

Records accompanying survey:

Boat sheets ..3..; sounding vols. .3...; wire drag vols. ..2...;  
 bomb vols. ....; graphic recorder rolls ....;  
 special reports, etc. 1-Smooth sheet, 1-A. & D. Sheet,.....  
 1-Descriptive report, 1-Envelope of Field Overlays, and.....  
 1-Envelope of Smooth Plot Overlays,

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

Number of positions on sheet	.....	407
Number of positions checked	.....	33
Number of positions revised	.....	1
Number of soundings revised (refers to depth only)	.....	6
Number of soundings erroneously spaced	.....	
Number of signals erroneously plotted or transferred	.....	
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings, from <del>graphic record</del> groundings and clearances	Time	38

Pre-Verification by *K. W. Wellman*.....Total time .....38 Date 8-25-76

Reviewed by..... Time ..... Date .....

*Carters* 6 hr 5/30/76

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8285 W. D.

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
6. All positions verified instrumentally were check marked in the sounding records.
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.
8. The metal protractor has been checked within the last three months.
9. The protracting and plotting of all bad crossings were verified.
10. All detached positions locating critical soundings, rocks or buoys were verified.
11. The boat sheet was compared with the smooth sheet.

12. The spacing of soundings as recorded in the records was closely followed.
13. The bottom characteristics were shown on outstanding shoals.
14. The reduction and plotting of doubtful soundings were checked.
15. The transfer of contemporary topographic information was carefully examined.
16. All junctions were transferred and overlapping curves made identical.
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
22. Unnecessary pencil notes have been removed.
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
24. The low water line and delineation of shoal areas have been properly shown.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in <sup>H-8285 W. D.</sup>report):
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:

Verified by

Date

H-8285 W.D.

Verified Soundings, Groundings, and Clearances  
(See Preverification Notes below tabulation)

N.C. = Not Cleared

<u>Sounding or Grounding Depth (ft.)</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Position Number</u>	<u>Cleared Depth (ft.)</u>	<u>Position Number</u>
15	59°27.36'	151°43.82'	4c	13	33-34C
16	59°27.35'	151°43.75'	31C	13	33-34C
18	59°27.33'	151°43.72'	1c	16	29-30C
18	59°27.02'	151°43.66'	27-28A	N.C.	
19	59°27.00'	151°43.63'	36-37C	18	27-28A
9	59°26.92'	151°43.61'	5c	N.C.	
19	59°26.86'	151°43.52'	23-24A	N.C.	
19	59°26.83'	151°43.48'			
18	59°26.57'	151°43.39'	6b	N.C.	
19	59°26.54'	151°43.41'	10-11B	N.C.	
<del>18</del>	<del>59°26.50'</del>	<del>151°43.30'</del>	<del>10-11B</del>	<del>17</del>	<del>9-11E</del>
12	59°26.48'	151°43.16'	19D	11	24-25E
13	59°26.47'	151°43.13'	3d	11	24-25E
19	59°26.28'	151°43.27'	22-23D	18	35-36D
19	59°26.09'	151°43.32'	8d	17	29-30E
18	59°26.07'	151°43.29'	6a	17	29-30E
18	59°25.99'	151°43.34'	8-9A	N.C.	
18	59°25.97'	151°43.30'			
17	59°25.97'	151°43.34'	5a	N.C.	
19	59°25.92'	151°43.34'	4-5A	N.C.	

Preverification Notes

Verification was limited to soundings, groundings, hangs, and clearances only. This information was inked and appropriately annotated on the smooth sheet. A comparison between the present survey and prior survey H-2930a (1908) revealed several hangs and groundings to be on known shoals thus obviating the need for their formal verification.

During the present processing some official changes in tide correctors were noted which are not reflected by the smooth plotted effective depths. In

Disregard; observation probably faulty. Grounding probably on known shoal to the east.

Correct  
RHC

H-8285 W.D.

Preverification Notes (Cont.)

addition, some of the wire-drag strips are not plotted in conformance with standard processing procedures. In view of the intended purpose of the present processing it is not considered necessary to revise all such noted discrepancies. Corrections, therefore, were limited to those necessary to verify the soundings, groundings, and clearances annotated on the smooth and A & D sheets during the present processing. (See tabulation above.) The cleared areas on the A & D sheet, as well as the unannotated soundings and groundings remaining on the present survey should not be regarded as fully verified and are to be used for reference purposes only. No further processing of the present survey is planned.

X.W.W. 8-25-76

The 16 ft. shoal on the present survey in lat.  $59^{\circ}26.5'$  long  $151^{\circ}43.25'$  was subsequently removed by dredging by 63172 and by 64015

RHC

### TIDE NOTE FOR HYDROGRAPHIC SHEET

~~XX~~

15 January 1957

Division of Charts: R. H. Carstens

Plane of reference approved in  
5 volumes of ~~sounding~~ records for  
wire drag

HYDROGRAPHIC SHEET 8285

Locality Cook Inlet, Alaska

Chief of Party: G. A. Nelson in 1956  
Plane of reference is mean lower low water, reading  
5.1 ft. on tide staff at Seldovia  
26.7 ft. below B. M. 10 (1956)

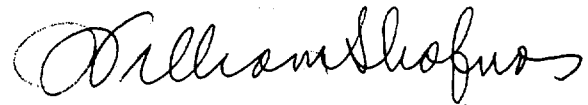
Height of mean high water above plane of reference is 15.4 feet.

Condition of records satisfactory except as noted below:

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

Vol. 1      Positions

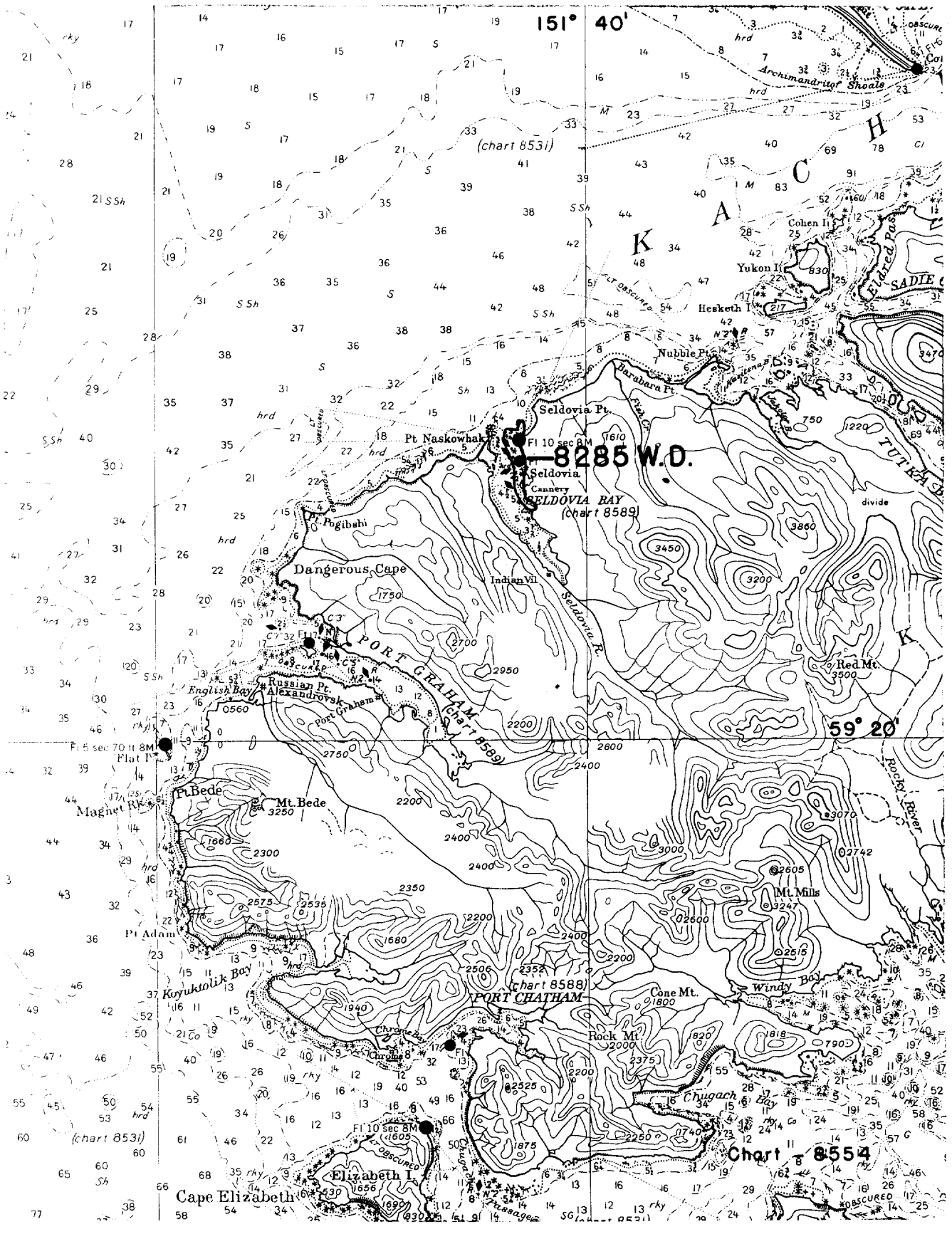
Launch 1&2	1a - 4a
	17a - 30a
	4c - 27c
	3f - 12f
Launch 4	3a - 5a
	5c
	1f - 5f



Branch

Chief, ~~XXXXXXXXXX~~ Tides ~~XXXXXXXXXX~~





151° 40'

59° 20'

8285 W.O.

Chart 8554

(chart 853i)

(chart 8588)

(chart 8589)

(chart 853j)

(chart 853k)

(chart 853l)

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8285 W.D.

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
<del>8554</del>		1179 2	Before <del>After</del> Verification and Review
6-9-58	8554	R.E. Elkimo	no revisions
Jan 59	8531 <sup>10</sup>	H.E.M. - JFW	Before <del>After</del> Verification and Review
7/17/63	8589	J.C. Westbrock	Before <del>After</del> Verification and Review
11/3/77	8589	Mass J. Fress	Before <del>After</del> <sup>PRE</sup> Verification and Review
			Examined - Critical Corrections Appld
10/17/78	16646	RAITOR	Before <del>After</del> <sup>PRE</sup> Verification and Review
			NO CORR, considered fully appld
10/17/78	16640	RAITOR	Before <del>After</del> <sup>PRE</sup> Verification and Review
			Appld, considered fully appld
10-27-83	16645	R. Elliott	Before <del>After</del> <sup>PRE</sup> Verification and Review
			NO CORR (APPL'D THRU H-9940 TO DRG #17)
			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.