8118

Diag. Cht. No. 8556-2

CS-360

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PF-1154 *Office No.* H-8118

LOCALITY

State ALASKA

General locality North End of Kodiak Island

Locality Whale Passage

19~~4~~ 54

CHIEF OF PARTY

K. G. CROSBY

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B-1870-1 (1)

8118

8118

Form 537
(Ed. June 1946)

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-8118

Field No. PF-1154

State ALASKA

General locality North End of Kodiak Island

Locality Whale Passage

Scale 1:10,000 Date of survey May 11 - 18, 1954

Instructions dated December 14, 1953; Suppl. Instr. dated January 25, 1954

Vessel PATHFINDER

Chief of party K. G. CROSBY

Surveyed by A. C. Thorson, W. F. Deane, P. A. Weber, and H. P. Demuth

Soundings taken by fathometer, graphic recorder, ~~hand lead, wire~~ 808 type

Fathograms scaled by Ship's personnel

Fathograms checked by Ship's personnel

Protracted by W. F. Deane Wire Drag Strips by: W. F. Deane

Soundings penciled by W. F. Deane W.D. Area-Depth Overlay by: W. F. Deane

Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW {and are based on a velocity of sound of 800 fms per sec.

Drag strip and applicable soundings in feet at MLLW.

REMARKS: (See FE-7, 1954)

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SURVEY H-8118 (Field No. PF-1154)

WHALE PASSAGE

ALASKA

SCALE 1:10,000

1 9 5 4

USC&GSS PATHFINDER	Capt. K. G. Crosby, Comdg.
Hydrographers:	Comdr. W. F. Deane Comdr. P. A. Weber Lt. (jg) H. P. Demuth
Wire Drag Operations: (See FE-7, 1954)	Comdr. A. C. Thorson Comdr. W. F. Deane Comdr. P. A. Weber

A. PROJECT

1. Project CS-360, Whale Passage, North End of Kodiak Island, Alaska.

2. Instructions dated 14 December 1953.

3. Supplemental Instructions dated 25 January 1954.

B. SURVEY LIMITS AND DATES

1. This survey covers the area of Whale Passage. The easterly limit is Longitude 152° 46.0'W from Whale Island south to Latitude 57° 54.3' N; the westerly limit is Longitude 152° 52.4' W from Kodiak Island north to Latitude 57° 57.1' N.

2. Field work began on 11 May 1954 and ended on 18 May 1954.

3. This survey is within the limits of prior survey H-2926 (1907).

4. No other contemporary surveys were made.

C. VESSELS AND EQUIPMENT

1. Hydrography, exclusive of wire drag, was done by Launches 1, 2, and 4 operated from the ship. In general, the northerly

portion of the passage was surveyed with Launch 2, identified by red position dots and letters. The southerly portion was surveyed by Launch 1 except for one day, 16 May, when Launch 4 was used; Launches 1 and 4, operated by the same hydrographic party, used green to identify position dots and letters. In wire drag operations Launch 2 was guide launch, Launch 1 was end launch, and Launch 4 was the tender.

2. Turning radii at normal sounding speed are as follows:

Launch 1 - starboard, 20 meters; port, 13 meters.
Launch 2 - starboard, 16 meters; port, 21 meters.
Launch 4 - unknown.

3. Echo sounding equipment consisted of 808 type graphic recording fathometers with keel-mounted acoustic units. Fathometer numbers were as follows: Launch 1, No. 61; Launch 2, No. 68 (one day only) and No. 74S; Launch 4, No. 46.

D. TIDE AND CURRENT STATIONS

1. Tide records from a portable automatic tide gage established on Uzkosti Point, Whale Passage, were used throughout for computing tide reducers. No time and range corrections were applied.

2. Three current stations, employing radio current meters and buoys, were occupied.

a. Station No. 1 was in Kupreanof Strait in mid-channel and about 1/2-mile north of Chernof Point. This position does not plot on the smooth sheet. (About 2 miles W. of W. limits of H-8118)

b. Station No. 2 was in west entrance to Whale Passage in middle of deep water channel north of Pokati Point.

c. Station No. 3 was in east entrance to Whale Passage in about mid-channel off Bird Point.

E. SMOOTH SHEET *Topo (G.C) surveys applied to H-8118 and then were destroyed.

1. The smooth sheet projection was made by ship's officers. Topographic signals were transferred by tracing paper from Topographic Surveys *PF-A-54 and PF-B-54. Shoreline was transferred by tracing paper from a copy of prior survey H-2926 (1937). The shoreline was left in pencil because of several discrepancies with hydrographic information. Transfers of topographic signals and shoreline were verified. No contemporary HWL available. No HWL shown

2. Soundings were pencilled in fathoms and tenths from 0 to 11 fathoms and in integral fathoms at greater depths.

F. CONTROL STATIONS

1. Triangulation was obtained from two sources. Only one existing station was used for control on this sheet; this was STUMP 2, established in 1933 by H.B.C. All other triangulation control was established during the current season.

2. Topographic signals were located by graphic control on *Topographic Surveys PF-A-54 and PF-B-54 using recovered 1933 and contemporary triangulation. * applied to H-8118 and then were destroyed.

G. SHORELINE AND TOPOGRAPHY

1. Shoreline and other topographic details were transferred in pencil from prior survey H-2926. (1907) No HWL inked

2. No checks on shoreline and other topographic details were made by the graphic control party.

3. Some discrepancies were noted from hydrographic information.

a. The low water line when compared with H-2926 (1907) checked generally well considering the distortion of the film copy (H-2926) and the paucity of soundings for proper delineation.

b. In the Shag Rocks area the comparison is not bad since the hydrographic information indicated a large foul area and several references to individual rocks.

c. The reef jutting out from shore between topographic signals TAN and LOG is not shown on the prior survey.

d. The high water shoreline of H-2926 (1907) fails to agree with the present survey in several localities.

(1) Shoreline in the vicinity of topographic signal END should be further offshore since the signal is nearer the high water line than shown. Definite information was not obtained.

(2) The high water line running northwest of Uzkosti Point is too far westward (offshore) to agree with this survey which indicates water inside the transferred shoreline.

(3) A small section of the shoreline between topographic signal LAY and triangulation station HALE does not agree with hydrographic information which places it about 15-20 meters further westward (inshore). See position 7e, green.

(4) Near topographic signal OIL the shoreline does not agree with hydrography as shown by the plotted position 104c, green. The shoreline should be further south (inshore).

e. In general the shoreline from H-2926 (1907) agrees with the information from the present survey.

H. SOUNDINGS

1. Soundings were measured in fathoms except for a few instances on "a" day (red) when the foot scale was used. The fathom scale was used thereafter to prevent missing soundings in the irregular bottom.

2. The soundings were measured with 808 graphic recording fathometers calibrated for a velocity of 800 fms/sec.

3. Corrections for initial were scaled from the fathograms and an echo correction for each fathometer was obtained from an abstract of the daily bar checks. See Special Report, Fathometer Corrections - 1954.

I. CONTROL OF HYDROGRAPHY

1. Hydrography was controlled entirely by sextant fixes on shore objects using signals located by triangulation or graphic control.

2. The control was adequate and only a few positions had to be adjusted in horizontal position on time and/or course as indicated in the remarks column of the sounding record.

J. ADEQUACY OF SURVEY

1. This survey is complete and should supersede prior surveys for charting. See Review

2. Some of the depth curves on dangers and near shore have been purposely omitted to prevent obscuring the pencilled soundings. Otherwise, the depth curves were drawn in the usual manner and with no difficulty. See IP 3 of Review

K. CROSSLINES

1. Approximately 4% crosslines were run; more mileage was prevented by the velocity of the currents. Some of the planned lines were run erratically because of the current and add to the stated percentage of crosslines. Because of these erratic lines and the superimposing of many lines on others there are many opportunities to verify soundings.

2. In general crossing and superimposed lines check very well. In cases of discrepancy irregular bottom or steep gradient is always the major factor.

3. Several discrepancies should be noted.

a. In Latitude 57° 55.5', Longitude 152° 48.6' soundings of 12 fathoms from 80a to 81a (red) bracket soundings of 14 fathoms from 33b to 34b (red). | bottom irregular

b. In Latitude 57° 56.4', Longitude 152° 50.8' soundings between 69b and 70b (red) could not be made to fit soundings between 33a and 35a (red) when the former's line bent right without sufficient information. The latter soundings checked those between 47c and 48c (red) and were retained. Soundings between 69b and 70b were therefore rejected because of lack of information to control the line. | sounding lines adjusted. Sdgs on 69-70 b retained.

c. In Latitude 57° 56.5', Longitude 152° 51.0' soundings between 70b and 71b (red) are shoaler by about 2 fathoms (30%) than adjacent lines. This is an area of irregular bottom. 17a(red) replotted - sdgs in agreement.

d. In Latitude 57° 55.2', Longitude 152° 47.5' soundings between 198b and 199b (red) are deeper by about 2 fathoms (20% to 30%) than those between 165b and 166b (red). This is an area of irregular bottom.

e. In Latitude 54° 54.9', Longitude 152° 47.2' a sounding of 3.8 fathoms at 146a (green) falls on a 12-fathom sounding between 187b and 188b (red). This is on the edge of a foul area and the gradient is steep. | course adjusted disagreement in depths resolved

f. In several instances the party in Launch 2 (red) "jogged" lines; these lines could not be drawn because of insufficient information. These jogs often created poor crossings and the soundings in question were rejected in the record book when not compatible.

L. COMPARISON WITH PRIOR SURVEYS

1. This survey was compared with prior survey H-2926, the only one for the area. Soundings of the prior survey were deeper in the majority of the cases, probably because of the sounding methods. Shoaler soundings than those of the present survey will be noted. See TP 5 of Review.

a. In Lat. 57° 56.46', Long. 152° 51.65' a sounding of 108 feet from H-2926 falls in an area of 20-fathom (120 ft.) soundings. However, there are 17 fathoms on the next line to the south. See TP 5 of Review.

b. In Lat. 57° 56.07', Long. 152° 51.82' an old sounding of 61 feet falls very near a 16-fathom (96 ft.) sounding but the 10-fathom curve is just south of the spot.

c. In Lat. 57° 56.30', Long. 152° 51.03' an old sounding of 89 feet falls near 18 fathoms (108 ft.) soundings.

d. In Lat. 57° 56.38', Long. 152° 50.40' an old sounding of 35 feet falls near a 7.4-fathom (44 ft.) sounding but the 6-fathom curve is near by.

e. In Lat. 57° 55.50', Long. 152° 48.10' a sounding of 35 feet from H-2926 falls nearer the 10-fathom curve than that of the 6. A slight displacement can account for this.

f. In Lat. 57° 54.77', Long. 152° 47.18' an old sounding of 54 feet falls between soundings of 13 fathoms (78 ft.) and 15 fathoms (90 ft.). The old sounding is apparently displaced since the foul area to the north is adequately boxed by a line of comparatively deeper soundings to the northward of the old sounding.

g. In Lat. 57° 55.28', Long. 152° 46.15' an old sounding of 47 feet falls in an area of about 9 fathoms (54 ft.). A slight displacement to the northwestward of the old sounding would bring agreement.

2. There are no surveys by other agencies in this area.

M. COMPARISON WITH CHART

1. C&GS Chart 8534 (Print Date, 26 May 1952) is the largest scale chart covering Whale Passage and a detailed comparison was made with it.

2. The agreement is good, the chart showing deeper soundings in most cases of disparity, but some comparisons are noteworthy.

a. The reported obstructions shown by hand corrections in Lat. 57° 54.9', Long. 152° 46.6' and in Lat. 57° 55.4', Long. 152° 48.7' will be discussed under wire drag operations in Section N. See Desc. Rpt & Review of FE 7, 1954.

b. In Lat. 57° 54.5', Long. 152° 46.7' a charted sounding of 49 fathoms is in an area of about 33 fathoms. The latter should be accepted.

c. In the vicinity of Ilkognak Rock the present survey shows shoaler soundings than the chart and sould supersede the latter values.

d. In Lat. 57° 54.9', Long. 152° 46.4' the chart shows 6 fathoms. Nearby in Lat. 57° 54.88', Long. 152° 46.42' this survey has a sounding of 2.4 fathoms. 2.3 fms RKD 5-13-58 2.1 fms on FE-7-54 transferred to H-8118.

e. In Lat. 57° 54.6', Long. 152° 47.6' the chart shows 25 fathoms in an area of about ~~20~~ 22 fathoms. The latter should be acceptable.

f. In Lat. 57° 55.3', Long. 152° 48.3' the charted 23-fathom spot should be superseded by a sounding of 16 fathoms from this survey.

g. In Lat. 57° 55.5', Long. 152° 49.7' the chart shows 15 fathoms in an area of 12 to 13 fathoms from this survey.

h. In Lat. 57° 55.7', Long. 152° 49.2' the chart shows a depth of 8 fathoms. This survey shows a least depth in this area of 5.5 fathoms that should replace the charted value.

i. In Lat. 57° 56.0', Long. 152° 50.7' the charted depth of 8 fathoms should be changed to 6 fathoms from this survey.

j. In Lat. 57° 56.1', Long. 152° 50.9' the charted depth of 6-1/2 fathoms should be replaced by one of 4.2 fathoms in the vicinity.

k. The deep charted in Lat. 57° 56.2', Long. 152° 50.3' at 26 fathoms should show the 22-fathom depth from this survey.

l. In Lat. 57° 56.9', Long. 152° 51.9' a charted 7 fathoms is in area where the least depth from present survey is 4.7 fathoms.

N. DANGERS AND SHOALS

1. Newly found dangers and shoals are listed as follows:

a. A shoal in Lat. 57° 56.9', Long. 152° 51.9' with least depth of 4.7 fathoms found by fathometer between 2b and 3b (red). See 1 pg 7

b. A shoal near shore in Lat. 57° 56.4', Long. 152° 51.0' with least depth of 4.7 fathoms found by fathometer between 70b and 71b (red). See IPK item 3c

c. A shoal sounding in Lat. 57° 56.1', Long. 152° 51.3' of 5.7 fathoms found by fathometer between 118a and 119a (red).

d. A shoal in Lat. 57° 55.6', Long. 152° 49.5' with least depth of 7.2 fathoms found by fathometer between 73c and 74c (green).

e. A shoal sounding in Lat. 57° 55.4', Long. 152° 49.0' of 7.1 fathoms found by fathometer between 80c and 81c (green).

f. A shoal in Lat. 57° 55.0', Long. 152° 46.9' with least depth of 7.6 fathoms found by fathometer between 187d and 188d (red).

g. A shoal in Lat. 57° 54.8', Long. 152° 46.6' with least depth of 8.6 fathoms found by fathometer between 2c and 3c (red).

h. Shoal areas near Shag Rocks in Lat. 57° 54.5', Long. 152° 47.4' with least depth of 1.8 fathoms found by fathometer between 152c and 153c (green).

2. Previously known shoals with results of the present survey are as follows:

a. A shoal in Lat. 57° 56.4', Long. 152° 52.4' with least depth of 7 fathoms on 75d (red) found by fathometer was not fully developed since it was on limit of work. 8 fathoms are shown on chart 5834.

b. A shoal sounding of 89 feet in Lat. 57° 56.30', Long. 152° 51.03' on prior survey H-2926 is not substantiated in location. The present survey shows about 19 fathoms, however, there are soundings of 14 and 15 fathoms 0.2 miles southeast.

c. A shoal in Lat. 57° 56.1', Long. 152° 51.1' has a depth of 38 feet on H-2926 (1937); the new survey has a least depth of 4.2 fathoms (25 feet) found by fathometer between 152d and 153 (red).

d. The foul area around Koniuji Island is more clearly defined in the new survey.

e. A shoal in Lat. 57° 55.7', Long. 152° 49.2' with old sounding of 53 feet has least depth from new survey of 5.2 fathoms (31 feet) found by fathometer between 79a and 80a (red).

f. A shoal in Lat. 57° 55.4', Long. 152° 48.3' with old sounding of 35 feet has least depth from new survey of 2.6 fathoms (16 feet) found by fathometer between 49e and 50e (red). This shoal continues southeasterly and the prior survey shows a depth of 53 feet in an area where the present survey has a least depth of 6.4 fathoms (38 feet) found by fathometer between 30b and 31b (red).

g. The rocks shown on the old survey in Lat. 57° 54.9', Long. 152° 48.1' are substantiated by hydrographic information from the present survey.

h. The Shag Rocks area from the prior survey is verified by the new.

i. The foul area west of Ilkognak Rock was adequately delineated. ~~However, a new and shoal depth in Lat. 57° 54.9', Long. 152° 47.2' with a least depth of 3.8 fathoms (23 feet) was found by fathometer on 146a (green).~~

j. A shoal in Lat. 57° 55.1', Long. 152° 46.6' had a least depth of 26 feet on H-2926 (1937). The present survey shows a least depth of 3.6 fathoms (22 feet) found by leadline on 16D (red) during wire drag.

3.5 fms. brought forward from FE-7-1954

k. A shoal in Lat. 57° 54.9', Long. 152° 46.5' had a least depth of 38 feet on H-2926. The present survey shows a least depth of 2.4 fathoms (14 feet) found by leadline on 14A (red) during wire drag.

2.1 fms. brought forward from FE-7, 1954

3. Wire drag investigations were required by the Instructions in two localities. See PF-1154WD for specific drag strips.

FE-7 (1954)

a. A vessel drawing 22 feet reported striking an obstruction 300 to 400 yards, 72° true, from Ilkognak Rock Light. This area (Lat. 57° 54.9', Long. 152° 46.6') was investigated.

See Review FE-7-1954

(1) A drag with an effective depth of 30 feet, towed northwestward, grounded on a 14.4-foot spot (found by handlead) in Lat. 57° 54.85', Long. 152° 46.44', about 200 meters southeast of the reported obstruction, before reaching the spot to be investigated.

(2) A drag with an effective depth of 13 feet, towed northwestward, cleared the 14.4-foot spot and the area of the reported obstruction.

(3) A drag with an effective depth of 29 feet, towed eastward, parted over the previously dragged areas.

(4) A drag with an effective depth of 25 feet, towed southeastward, grounded near the far buoy but the guide launch swept around and cleared the area of the reported obstruction, thus disproving it. The ground near the far buoy was at a depth of 22.2 feet (handlead) in Lat. 57° 55.03', Long. 152° 46.60' which had to be investigated.

(5) A drag with an effective depth of 22 feet was towed westward to clear the 22.2-foot spot but grounded because of a rapid current change. This drag was repeated with an effective depth of 18 feet and cleared the 22.2-foot sounding.

b. A vessel (draft unknown) reported grounding in Lat. 57° 55' 25", Longitude 152° 48' 40" while on a course of 297° true and heading on Koniuji Island with Ilkognak Rock Light directly astern. This area was investigated. A drag with an effective depth of 31 feet, towed eastward, cleared the area of the reported grounding.

4. All charted shoals and dangers were found as charted or shoaler depths obtained except for specific instances listed in Sections L, M, and N.

O. COAST PILOT INFORMATION

A detailed report on Coast Pilot information will be submitted. See Coast Pilot Notes-1954, Ship PATHFINDER.

P. AIDS TO NAVIGATION

1. Two fixed aids to navigation were located (see Form 567) by triangulation.

2. Floating aids to navigation were located by sextant fixes during hydrography and are as follows:

a. Koniuji Island Buoy 1 (black, 1st class can), L.L. No. 2753, Lat. 57° 55.96', Long. 152° 50.19', in about 13 fathoms water, position number 34c (red), 16 May 1954.

b. Yuzhni Point Buoy 2 (red, 2nd class nun), L.L. No. 2753, Lat. 57° 55.30', Long. 152° 46.61', in 9.8 fathoms water, position number 91b (red), 2 May 1954.

Q. LANDMARKS FOR CHARTS

See report on Form 567, LANDMARKS FOR CHARTS.

R. GEOGRAPHIC NAMES

All geographic names in this survey area are as presently charted. No changes or additions are recommended. See Geographic Name List of this report.

S. - Y. Not Applicable.

Z. TABULATION OF APPLICABLE DATA

	NAME	DATE FORWARDED
1.	Special Report, FATHOMETER CORRECTIONS 1954	
2.	COAST PILOT NOTES 1954	
3.	TRIANGULATION RECORDS, WHALE PASSAGE, 1954	27 May 1954
4.	CURRENT OBSERVATION RECORDS, WHALE PASSAGE, 1954	1 May 1954
5.	TIDE RECORDS, UZKOSTI PT., WHALE PASSAGE, 1954	18 May 1954
6.	TOPOGRAPHIC SHEET PF-A-54	
7.	TOPOGRAPHIC SHEET PF-B-54	
8.	LANDMARKS FOR CHARTS, 1954	

Respectfully submitted,

William F. Deane

William F. Deane
Comdr., C&GS

APPROVED AND FORWARDED:

K. G. Crosby

K. G. Crosby
Capt., USC&GS
Comdg. Ship PATHFINDER

STATISTICS FOR HYDROGRAPHIC SURVEY

Hydrography exclusive of Wire Drag

VOL. NO.	DAY LETTER	DATE	POSITIONS	STATUTE MILES OF SOUNDING
LAUNCH 1				
5-6	a (green)	5/12/54	186	32.0
6-7	c (green)	5/17/54	158	17.9
7	d (green)	5/18/54	13	- -
	TOTALS, LAUNCH 1		357	49.9
LAUNCH 2				
1	a (red)	5/11/54	153	26.9
2	b (red)	5/12/54	191	25.8
3	c (red)	5/16/54	74	9.9
3-4	d (red)	5/17/54	187	29.2
4	e (red)	5/18/54	52	4.3
	TOTALS, LAUNCH 2		657	96.1
LAUNCH 4				
6	b (green)	5/16/54	105	12.0

TOTALS FOR HYDROGRAPHY EXCLUSIVE OF WIRE DRAG:

Number of positions	1119
Statute miles of sounding	158.0
Area in square statute miles	4.5

STATISTICS FOR HYDROGRAPHIC SURVEY

WIRE DRAG ONLY

VOL. NO.	DAY LETTER	DATE	POSITIONS	STAT. MI. OF DRAG
LAUNCH 2 (GUIDE)				
1	A (red)	5/13/54	13	0.8
1	B (red)	5/14/54	21	1.3
1	C (red)	5/15/54	24	2.0
1	D (red)	5/16/54	15	1.0
	TOTALS, Launch 2		73	5.1
LAUNCH 1 (END)				
1	A (red)	5/13/54	12	-
1	B (red)	5/14/54	20	-
1	C (red)	5/15/54	21	-
1	D (red)	5/16/54	15	-
	TOTALS, Launch 1		68	-
LAUNCH 4 (TENDER)				
1	A (red)	5/13/54	1	-
1	B (red)	5/14/54	0	-
1	C (red)	5/15/54	4	-
1	D (red)	5/16/54	2	-
	TOTALS, Launch 4		7	-

GRAND TOTALS FOR HYDROGRAPHY AND WIRE DRAG

Number of positions	1267
Statute miles of sounding	158.0
Statute miles of wire drag	5.1
Area of hydrography in square statute miles	4.5
Area of wire drag in square statute miles	0.2

TIDE NOTE

HYDROGRAPHIC SURVEY H- 8118 (PF-1154)

Records from the portable automatic tide gage installed on Uzkosti Point in Latitude 57° 55.7' N., Longitude 152° 48.7' W., Whale Island, Alaska, were used for the reduction of soundings.

The reading on the staff for mean lower low water was 5.7 feet.

No corrections for time or range were applied.

GEOGRAPHIC NAME LIST

HYDROGRAPHIC SURVEY H- 8118 (PF-1154)

BIRD POINT

DIROVATI POINT

ILKOGNAK ROCK

INNER POINT

KODIAK ISLAND

KONIUJI ISLAND

POKATI POINT

SHAG ROCKS

UZKOSTI POINT

WHALE ISLAND

WHALE PASSAGE

YUZHNI POINT

LIST OF STATIONS ON H- 8118 (PF-1154)

NAME USED HYDROGRAPHIC SURVEY	ORIGIN OF STATION
ABE	PF-B-54
BAG	PF-B-54
BIG	PF-A-54
BIRD	BIRD, 1954
CAB	PF-A-54
CAR	CARE, 1954
CAT	PF-B-54
COW	PF-A-54
DAY	WHALE PASSAGE DAYBEACON, 1954
DIP	PF-A-54
END	PF-A-54
FIT	PF-B-54
FUN	PF-A-54
HAG	SHAG, 1954
HAL	HALE, 1954
HEX	PF-B-54
ICE	PF-B-54
ILK	ILKOGNAK ROCK LIGHT, 1954
JAW	PF-A-54
KEY	PF-A-54
KOS	UZKOS, 1954
LAY	PF-A-54
LEO	PF-A-54
LOG	PF-B-54
MAX	PF-A-54
NEW	PF-A-54
NUT	PF-A-54
OAK	PF-A-54
OIL	PF-A-54
PAT	PATH, 1954
PIE	PF-A-54
PRO	PF-A-54
PUP	PF-B-54
RAD	KRAD, 1954
RIO	PF-A-54
RON	BARON, 1954
ROV	DIROV, 1954
SAG	SAGE, 1954
SUE	PF-B-54
TRY	PF-B-54
UMP	STUMP 2, 1933
YUZ	YUZ, 1954
ZOO	PF-A-54

APPROVAL SHEET

HYDROGRAPHIC SURVEY H-8118 (PF-1154)

WHALE PASSAGE

NORTH END OF KODIAK ISLAND

ALASKA

This survey was inspected daily while hydrography was in progress. The smooth sheet was inspected at frequent intervals during the time it was being protracted and while the soundings were being pencilled. It was again examined after completion and compared with wire drag investigations from area and depth overlay.

I consider this survey to be complete and adequate. No additional work is required or recommended within the area of the present hydrography.

K. G. Crosby

K. G. CROSBY
CAPTAIN, USC&GS
COMDG. SHIP PATHFINDER

Form 537a
Ed. Nov. 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

PF-A-54
Field No. PF-B-54

REGISTER NO.

State ALASKA

General locality KODIAK ISLAND

Locality WHALE PASSAGE

Scale 1:10,000 Date of survey 10-11 May, 1954

Vessel PATHFINDER

Chief of party K. G. CROSBY

Surveyed by F. A. RIDDELL and E. R. STONE

Inked by F. A. RIDDELL and E. R. STONE

Heights in feet above ..... to ground to tops of trees

Contour, Approximate contour, Form line interval ..... feet

Instructions dated 14 December, 1953
Project No. CS-360
Remarks: Graphic control.

GPO

These graphic control surveys have been applied to H-8118 (1954) and where then destroyed.

DESCRIPTIVE REPORT

to accompany

GRAPHIC CONTROL SHEETS, FIELD NOS. PF-A-54 & PF-B-54

PROJECT CS-360

WHALE PASSAGE, KODIAK ISLAND

ALASKA

SCALE 1:10,000

1 9 5 4

USC&GSS PATHFINDER — K. G. CROSBY, COMD'G.

Topographers — F. A. Riddell
E. R. Stone

AUTHORITY

Instructions, 22/MEK; S-2-PF, 14 December 1953.

TYPE OF SURVEY

The purpose of this survey was the location of hydrographic signals. No shoreline was delineated. The penciled shoreline was transferred from Hydrographic Survey H-2926, Scale 1:10,000.

SURVEY LIMITS

Signals were located along both shores of Whale Passage from the entrance at Yuzhni Point westward to Occident Point.

CONTROL

Control was by triangulation established in 1954 (PATHFINDER) which was connected to existing triangulation (H.B.C. - 1933) on the N.A. 1927 datum.

SURVEY METHODS

No traverses were run. All signals were located by at least three cuts taken from set-ups at triangulation stations or from strong three-point fix positions. The signals were white washed rocks or temporary flags. No recoverable topographic stations were established. The declination as determined by the declinatoire at three stations was as follows:

STATION	DATE	TIME	DECLINATION
BARON, 1954	5/~~9~~11/54	0845	19° 00'
YUZ, 1954	5/~~10~~9/54	1400	23° 30'
PATH, 1954	5/10/54	0835	23° 50'

LANDMARKS FOR CHARTS

See Form 567.

GEOGRAPHIC NAMES

See description report accompanying hydrographic sheet, PATHFINDER Field No. 1154.

ADEQUACY OF SURVEY

This survey was adequate for the purpose of project CS-360.

Respectfully submitted,

Fred A. Riddell,
CDR., C&GS

APPROVED AND FORWARDED:

K. G. Crosby,
Captain, C&GS,
Comdg. Ship PATHFINDER

GEOGRAPHIC NAMES

Survey No. H-8118

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	
Alaska										1
Kodiak Island										2
Whale Island									B.G.N.	3
Inner Point										4
Ilkognak Rock										5
Shag Rocks										6
Pirovati Point									B.G.N.	7
Yuzhni Point										8
Bird Point										9
Uzkosti Point									B.G.N.	10
Koniuji ~~Point~~		Island		(ag. U. 12/28/54)						11
Pokati Point										12
Whale Passage										13
										14
					Names approved					15
					10-27-54. L. Heck					16
										17
										18
Chernof Point		(location of one current station)								19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8118....

Records accompanying survey:

Boat sheets .2...; sounding vols. 7....; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 2 Env.;

special reports, etc. 1 Smooth Sheet; 1 Descriptive Report;.....

.....

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

Number of positions on sheet		1119
Number of positions checked		15
Number of positions revised		4
Number of soundings revised (refers to depth only)		25
Number of soundings erroneously spaced		40
Number of signals erroneously plotted or transferred		———
Topographic details	Time	no contemporary shoreline
Junctions	Time	4
Verification of soundings from graphic record	Time	6

Verification by A.J. Hoffman Total time 131 Date 12/2/54

Reviewed by [signature] Time 3.6 Date 12/23/54

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8118 FIELD NO. PF-1154

Alaska, North End of Kodiak Island, Whale Passage

Project No. CS-360

Surveyed - May, 1954 Scale 1:10,000

Soundings: Control:

808 Fathometer Sextant fixes on shore signals

Chief of Party - K. G. Crosby
Surveyed by - A. C. Thorson, W. F. Deane, P. A. Weber, and H. P. Demuth
Protracted by - W. F. Deane
Soundings plotted by - W. F. Deane
Verified and inked by - A. J. Hoffman
Reviewed by - I. M. Zeskind 12-24-54
Inspected by - R. H. Carstens

1. Shoreline and Control

No contemporary shoreline is available for transfer to the present survey.

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 kelp and foul area sometimes prevented development to the low-water line.

The bottom is very irregular. It drops abruptly from shore to depths of 5 fms. Shoals, pinnacles, reefs and foul areas contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

The present survey extends to the limits of the project on the east and west and falls within the limits of H-2926 (1907). Charted depths are in adequate agreement with the present depths at the project limits.

5. Comparison with Prior Surveys

H-2926 (1907), 1:20,000

A comparison between the prior and present surveys reveals the present depths generally to be 2 to 5 fms. shoaler than the prior depths, although in several areas greater differences in depth are noted. An example of this latter difference in depths occurs in lat. 57°54.62', long. 152°46.88', where a prior depth of 294 ft. (49 fms) falls in present depths of 37-38 fms. These differences in depths are attributed mainly to the different methods of obtaining the soundings, i.e., leadline on the prior survey as compared with the fathometer on the present survey. Tidal currents in Whale Passage run with great force during spring tides; the velocity of these currents being estimated at 9-12 miles per hour. It is believed these currents caused erroneous depths to be obtained on the prior surveys due to the bowing of the leadline or the leadline not being directly beneath the vessel.

Bottom characteristics from the prior survey have been carried forward to the present survey. With the addition of these bottom characteristics, the present survey is adequate to supersede the prior survey.

Wire Drag F.E., 7, 1954

There are no conflicts between the present survey soundings and the effective wire-drag depths of F. E. 7, 1954. Several critical depths from F. E. 7, 1954 have been brought forward to the present survey.

6. Comparison with Chart 8534 (Latest print date 5/26/52)

A. Hydrography

The charted hydrography originates principally with H-2926 (1907) which needs no further consideration, supplemented by a few soundings from the present survey prior to verification and review and several clearance depths from F. E. 7, 1954 prior to its verification and review.

The 5-fm. clearance depth charted in lat. 57°54.92', long. 152°46.57', from advance information of F. E. 7, 1954

(Chart Letter 490, 1954) was revised to a cleared depth of 25 ft. after verification and review of the field examination. A vessel whose draft was 22 ft. was reported to have touched bottom in the vicinity of the above mentioned position where present depths are found to be 10-14 fms. A shoal with a least depth of 2.0 fms. lies about 200 meters to the southeastward of the charted obstruction and it is considered probable that the vessel touched bottom on this shoal. The charted obstruction is disproved, and should, therefore, be deleted from the chart.

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

B. Aids to Navigation

The 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.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

This is a good basic survey and no additional field work is recommended. However, as a matter of record it is noted that the shoal in lat. 57°56.95', long. 152°52.0' was not developed.

Examined and Approved:

H. R. Edmonston
Chief, Nautical Chart Branch

E. R. McCarthy
Acting Chief, Chart Division

J. C. Bull
Chief, Hydrography Branch

Earl O. Heaton
Chief, Division of Coastal Surveys

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography:~~ 29 October 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 8118

Locality Whale Passage, Kodiak Island, Alaska

Chief of Party: K. G. Crosby in 1954
Plane of reference is mean lower low water, reading
5.7ft. on tide staff at Uzkosti Point
15.5ft. below ~~B.M.~~ B M 1 (1954)

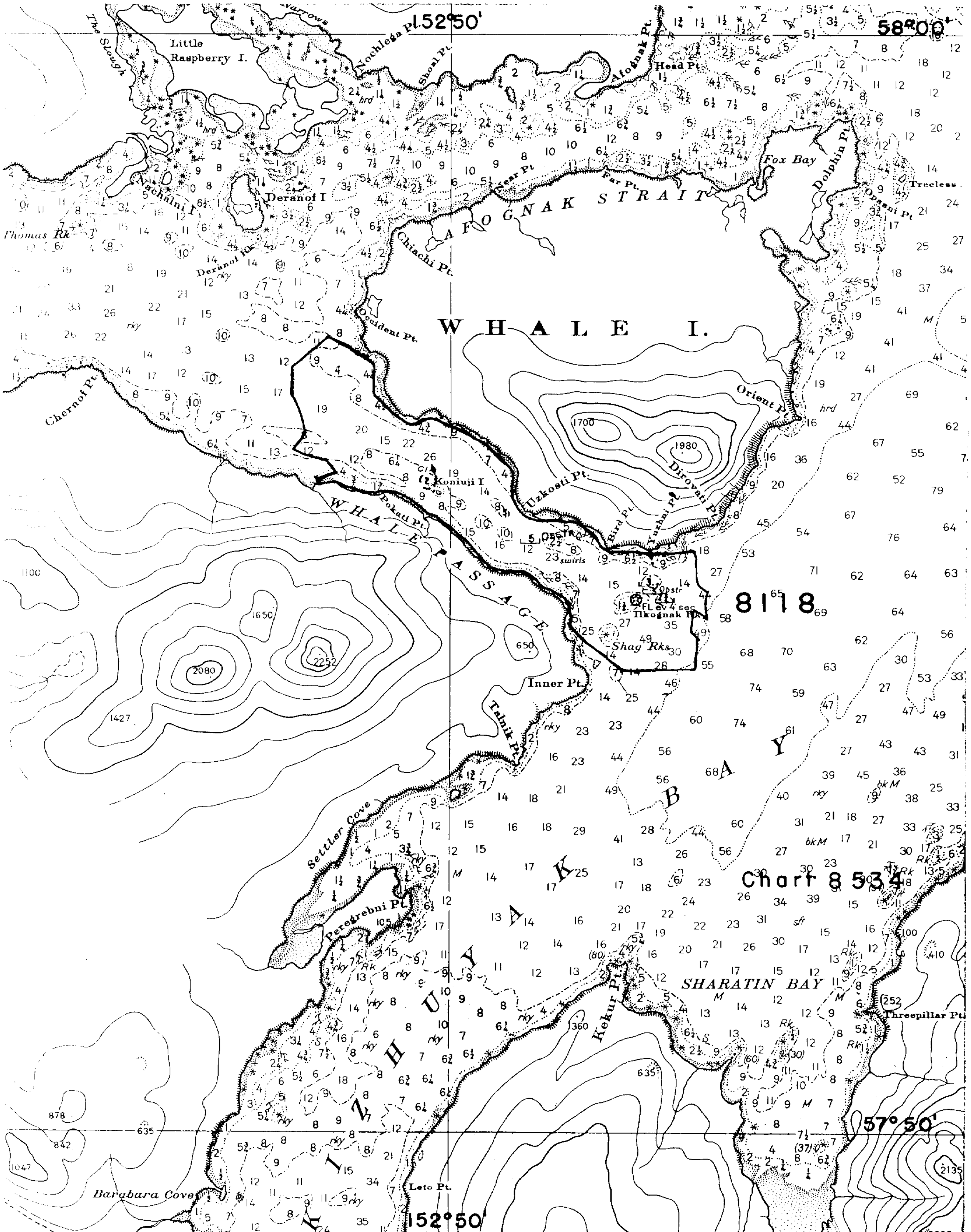
Height of mean high water above plane of reference is 10.1 feet.

Condition of records satisfactory except as noted below:

E. C. McKay
Tides Branch

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 756675


152°50'
58°00'
57°50'
Little Raspberry I.
The Slough
Nachalni I.
Deranof I
Deranof Rk
Thomas Rk
Chernof Pt
Shoal Pt
Afognak Pt
Head Pt
Near Pt
Far Pt
AFOGNAK STRAIT
Fox Bay
Dolphin Pt
Opasni Pt
Treeless
Chiachi Pt
Occident Pt
WHALE I.
Orient Pt
Uzkosti Pt
Dirovati Pt
Bird Pt
Koniuji I
Pokati Pt
WHALE PASSAGE
Ilkognak Rk
Shag Rks
swirls
8118
Inner Pt
Talnik Pt
BAY
Settler Cove
Peregrebni Pt
Chart 8534
SHARATIN BAY
Threepillar Pt
Kekur Pt
IZHUYAK
Leto Pt.
Barabara Cove
152°50'

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8118

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
12/12/55	HO.M.Sc 1197I-SD-1	JFWalker	~~Before~~ After Verification and Review
3/14/56	8557	FAM.	~~Before~~ After Verification and Review
5-13-58	8534	R.K.McLauder	~~Before~~ After Verification and Review
11/22/80	16594	R. Nauto	Fully applied After Inspection ~~Before After Verification~~ and Review Prg. A.P.#15 to new Whale Pass. Inset
			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

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.