8617
WIRE DRAG

Diag. Cht. No. 8502-2.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Wire Drag

Field No. PF-20-2-61WD *Office No.* H-8617 W.D.

LOCALITY

State Alaska

General locality Cook Inlet

Locality Vicinity of East Foreland

19 61

CHIEF OF PARTY

A. L. Wardwell

LIBRARY & ARCHIVES

DATE August 5, 1963

USCOMM-DC 5087

8617
WIRE DRAG

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-8617

Field No. PF 20-2-61 WD

WIRE DRAG

State ALASKA

General locality ~~ALASKA - SOUTH COAST~~ Cook Inlet

Locality ~~NIKISKI AREA, COOK INLET~~ Vicinity of East Foreland

Scale 1:20,000 Date of survey 24 MAY - 21 SEPT. 1961

Instructions dated 3 NOVEMBER 1960

Vessel USC&GSS PATHFINDER

Chief of party ARTHUR L. WARDWELL, CAPT, C&GS., COMDG.

Surveyed by L.L. WILKERSON, R.A.TRAUSCHKE, D.C. McINTOSH, W.G. STOKES

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

Fathograms scaled by

Fathograms checked by

Protracted by C. A. J. Pauw

Soundings penciled by C. A. J. Pauw

Soundings in ~~XXXXXXX~~ feet at ~~MLLW~~ MLLW

REMARKS: Area and Depth Sheet by C. A. J. Pauw

U. S. GOVERNMENT PRINTING OFFICE 777032

DESCRIPTIVE REPORT
TO ACCOMPANY
WIRE DRAG SURVEY NO. H-8617
FIELD NO. PF-20-3-61

Project SP-1-61 1961
A. L. Wardwell, Chief of Party USC&GS Ship PATHFINDER

A. AUTHORITY

The project instructions for SP-1-61 dated 3 November 1960.

B. CHARACTER AND LIMITS OF THE WORK

The purpose of the survey was to assure that the Nikiski Fuel Pier area and approaches have a clear depth of 35 feet. The survey area is in Cook Inlet in the vicinity of East Foreland south to the area about 5 miles west of the mouth of the Kenai River, as shown on the enclosed progress sketch. The scale of the survey is 1:20,000. All control was visual and the effective depth range from 29 to 42 feet.

C. CONTROL AND SHORELINE

The triangulation is from published G.P's and field computations for years 1909, 1960 and 1961. The topographic control and shoreline are from Shoreline Manuscripts T-12040, T-12045, T-12046 and T-12049. There were no signals located by the wire drag party. There were two signals, PEG and IVY, located on the hydro survey by sextant angles and transferred to the wire drag sheet.

D. DATE OF SURVEY

This survey was begun on May 24, 1961 and completed on September 21, 1961.

E. TIDAL REDUCERS

Tidal reducers were obtained from a portable tide gage located on the south side of the Nikiski Fuel Pier at Latitude 60°41'02", Longitude 151°23'39". It appears that all corrections for tide, used for the wire drag work were taken directly from the tide gage on the Nikiski Fuel Pier. See tide tabulation attached to this report.

F. JUNCTIONS

There are no adjoining wire drag surveys.

G. SPLITS

There are three areas where splits occur, one at Lat. 60°34.2', Long. 151°25.0', another at Lat. 60°43.5', Long. 151°27.6', and the third at Lat. 60°44.8', Long. 151°26.6'. There are several areas of insufficient overlap, ~~two~~ in the vicinity of Lat. 60°44', Long. 151°26', two in Lat. 60°34', Long. 151°25', and one in Lat. 60°33', Long. 151°26'. All probably are due to strong currents and lack of time to complete the survey.

H. GROUNDINGS AND SHOALS

There are seven groundings or hangs on the survey, as follows:

Position	Latitude	Longitude	Grounded Effective Depth	Least Sounded Depth	Cleared	Remarks
20B	56°43.52'	151°27.70'	37 ft.	41 ft.	52194 33'	
10 D	60°38.~~49~~'	151°22.~~6~~58'	38	—	52192 29'	
8J	60°43.6~~5~~2'	151°27.74'	36	37	52195 33'	** Disregard hang- falls in depths of 54ft on H-8618 (1961)
19M	60°36.91'	151°25.44'	38	—	5219038 39'	
10N	60°38.12'	151°25.24'	36***	—	42	May be floating debris. (submerged)
32Q	60°37.55'	151°26.12'	~~38~~37	—	52191 35	Cleared later on same day.
35R	60°38.~~49~~39'	151°22.44'	29	—	52193 --	Area not covered again.
19V	60°35.1'	151°23.9'	37**	--	~~38~~ 40	*Area previously covered on K day to 38 ft. See note Vol. 3, page 29. *cleared to 40ft 19-15L

** Disregard-probably hung on floating debris. (Falls in depths of 49-54ft on H-8618, 1961)

AWOIS Rec'd 2/95

I. GENERAL NOTES

The main departure from standard practice appears to be that the End Launch is on the Near Buoy end of the drag. This was very confusing and may have been caused by erroneously transferring the Guide Launch data into the End Launch record.

Some of the obstructions encountered apparently were drifting deadheads. Three areas where there were hangs were cleared at other times with greater depths.

The upright lengths were measured to the top of the pipe on the buoy. This accounts for two feet of lift. Strong eddy current, most likely due to different currents at the surface and drag depths, caused most of the other lift. Because of the currents it was not possible to accomplish more in testing. Dragging was limited, for the most part,

to times when the current was less than three knots.

See the Season's Report of the Ship PATHFINDER for an account of the difficulties encountered during the progress of the dragging operation.

The notes, on groundings and peculiar maneuvers made with the drag, were not adequately explained in the record books. The smooth plotter let himself be influenced by the preliminary field plot of the wire drag strips and the boat sheets in resolving missing data. Since there was a shift in control between the boat sheet signal locations and the final locations, used on the smooth sheet, the boat sheet plotting was only used as a guide.

J. CURRENTS

There is no information in the Processing Office, other than the Current Tables, on the velocity and direction of the currents. The Current Tables show an average velocity of 3.8 knots for both flood and ebb currents with the direction of 25 degrees (true) for the flood and 205 degrees (true) for the ebb. These directions and velocities are for the mid-channel area off West Foreland.

There were two current stations observed in 1961, 100-hour series, in the drag area. A Roberts radio current meter and buoy anchored about a half mile west of the Nikiski Fuel Pier and a Price meter suspended from the outer side of the ship as she lay at the pier, operating concurrently, were used to observe the currents. The report on these observations is undoubtedly in Washington.

K. DISCREPANCIES AND COMPARISON WITH PREVIOUS SURVEY AND CHART

There is no previous wire drag survey in this area.

Comparison has been made with Chart 8553, 5th Ed., April 30, 1962. A possible discrepancy was found at Lat. 60°~~37.8~~ Long. 151°25.~~4~~7 where the charted depth is 5½ fathoms. The drag hung at approximately this location at position 19M with an effective depth of 38 feet, but later cleared at ~~37~~ 38 feet on "U" day. The area was also cleared at 38 feet on "Q" day. The shoalest sounding on H-8618 in this area is 6.7 fms. There is, however, a spot just east of the 6.7 fm. sounding where the sounding lines are about a hundred and fifty meters or more apart.

See Pd-1 Review

The charted 6 fm. sounding at Lat. 60°36.3', Long. 151°25.1' was cleared with 38 feet.

L. PERSONNEL AND EQUIPMENT

Standard wire drag gear was used in the operation. The drag lengths

were a minimum of 1200 feet and a maximum of 3600 feet with 3200 feet being the length most used. PATHFINDER Launches Nos. 1 and 2 were used to tow the drag. LT(jg) L. L. Wilkerson and ENS. R. A. Trauschke were in charge of the towing launches. Launches Nos. 3 and 4 were used as tenders with LT(jg) D. C. McIntosh and ENS. W. G. Stokes in charge.

M. MISCELLANEOUS

This report was written in the Seattle Processing Office from meager notes received from the PATHFINDER, the season's report, and the smooth sheet.

Apparently the weather was not much of a factor in the work, as there is no mention of it in the records. Current, however, was a constant threat to progress. The motor launches were inadequate for drag work, under the current conditions. When the drag hung it was frequently towed under by the current and several hours would pass before it was recovered. There were several instances when the drag hung that in the area had already been cleared or was later cleared to deeper depths. There are a couple of possible reasons for this. First, is that there were probably deadheads drifting around on the bottom and, second, the possible unreliability of lift tests, due to the strong currents.

There are no floating aids to navigation in the area covered by this survey.

Respectfully submitted,

William M. Martin
Supervisory Cartographer

Approved and forwarded

M. E. Wennermark
Captain, C&GS
Seattle District Officer

STATISTICS TO ACCOMPANY WIRE DRAG SHEET H-8617

Date 1961	Letter Day	Vol. No.	Nautical Miles	Positions	Tender Soundings	Tender Positions
5/24	A	1	15.3	134		
5/26	B	1	6.4	46	3	3
5/28	C	1	3.8	24		
6/6	D	1	2.9	20		1
6/7	E	1	7.2	44		
6/22	F	1	0.9	38		3
6/23	G	1	1.4	8	1	1
6/24	H	2	9.6	68	4	5
8/4	J	2	1.0	19	2	1
8/5	K	2	4.7	34		
8/6	L	2	7.4	64		
8/7	M	2	4.0	38		
8/18	N	2	1.7	20		1
9/3	Q	2	9.9	112		
9/4	R	3	6.7	70		1
9/16	S	3	5.0	34		
9/17	T	3	3.0	34		
9/20	U	3	2.4	32		
9/21	V	3	4.5	38	—	—
Total			98.8	877	10	16

Area = 24.7 Square Nautical Miles

LIST OF SIGNALS FOR H-8617 AND H-8618

ANN - T-12045

BOO - BOO 1961

CAL - T-12046

DER - BOULDER 1909

EGG - T-12046

FOR - EAST FORELAND LIGHT 1960

GUN - T-12045

HAV - T-12045
HIT - T-12049

IVY - Vols. 5 & 6 H-8618

JOE - T-12046
JUG - T-12045

KAL - KAL SHORAN 1961 (Not used on H-8617)
KEN - KENAI CHURCH STEEPLE 1909

LAC - T-12046
LAN - LAN SHORAN 1961 (Not used on H-8617)
LIZ - T-12046
LOR - T-12049

MER - T-12046

NAG - T-12049
NEW - T-12045
NOG - T-12046
NOW - T-12049
NUT - T-12049

PEG - Vol. 4, pg. 27 H-8618
POINT - POINT 1910

RAT - T-12049
RISE - RISE 1910

SET - T-12049
SIN - T-12049
SNO - T-12046

TAN	-	KENAI TANK 1959-1961
TAR	-	T-12040
TAY	-	T-12046
TRY	-	T-12045
VEL	-	T-12045
WAT	-	T-12049
WIL	-	T-12045

TIDE NOTE
to Accompany
H-8617

A pressure-type portable tide gage was installed on the Nikiski Fuel Pier and a staff attached to one of the large steel cylinders which supported the pier. Latitude 60°41.03', Longitude 151°23.65'.

Mean Lower Low Water corresponded to 8.3 feet on the tide staff (12.3 feet on the marigram).

Tide reducers for the wire drag survey were taken directly from the tide gage without time or height corrections.

1961

FINAL TIDES

NIKISKI (COOK INLET) ALASKA

OBSERVED & INFERRED TIDES
for Wire Drag

Sheet No. PF-20-2-61-WD

OBSERVED TIDES, NIKISKI (Cook Inlet) ALASKA

WIRE DRAG

24 MAY 1961 "A" Day

TIME	TIDE HEIGHT (Feet)
0938 to 0953	+ 13.0
1010	+ 13.5
1027	+ 14.0
1050	+ 14.5
1239	+ 15.0
1259	+ 14.5
1315	+ 14.0
1330	+ 13.5
1345	+ 13.0
1400	+ 12.5
1411	+ 12.0
1423	+ 11.5
1436	+ 11.0
1449	+ 10.5
1503	+ 10.0
1515	+ 9.5
1527	+ 9.0
1540	+ 8.5
1552	+ 8.0
1606	+ 7.5

Comp. By DCMc

✓ By JPW

Typed By PAC

✓ By D.CMc

26 MAY 1961 "B" Day

TIME	TIDE HEIGHT (Feet)
1010 to 1018	+ 10.5
1026	+ 11.0
1034	+ 11.5
1042	+ 12.0
1050	+ 12.5
1059	+ 13.0
1109	+ 13.5
1118	+ 14.0
1129	+ 14.5
1140	+ 15.0
1153	+ 15.5
1207	+ 16.0
1222	+ 16.5
1243	+ 17.0
1407	+ 17.5
1426	+ 17.0
1440	+ 16.5
1452	+ 16.0
1502	+ 15.5
1512	+ 15.0
1521	+ 14.5
1530	+ 14.0
1540	+ 13.5
1550	+ 13.0
1600	+ 12.5

OBSERVED TIDES, NIKISKI (Cook Inlet) ALASKA

WIRE DRAG

28 MAY 1961 "C" Day

TIME	TIDE HEIGHT (Feet)
1043to 1048	+ 6.5
1054	+ 7.0
1100	+ 7.5
1107	+ 8.0
1113	+ 8.5
1120	+ 9.0
1126	+ 9.5
1132	+10.0
1138	+10.5
1144	+11.0
1151	+11.5
1158	+12.0
1203	+12.5
1211	+13.0
1217	+13.5

6 JUNE 1961 "D" Day

TIME	TIDE HEIGHT (Feet)
1151 to 1159	+ 14.0
1208	+ 13.5
1217	+ 13.0
1225	+ 12.5
1234	+ 12.0
1243	+ 11.5
1251	+ 11.0
1300	+ 10.5
1309	+ 10.0
1318	+ 9.5

7 JUNE 1961 "E" Day

TIME	TIDE HEIGHT (Feet)
0721 to0729	+ 9.5
0738	+10.0
0746	+10.5
0754	+11.0
0801	+11.5
0810	+12.0
0818	+12.5
0827	+13.0
0837	+13.5
0848	+14.0
0859	+14.5
0911	+15.0
0923	+15.5

22 JUNE 1961 "F" Day

TIME	TIDE HEIGHT (Feet)
1022 to 1133	+15.5
1154	+15.0
1210	+14.5
1227	+14.0
1242	+13.5
1255	+13.0
1307	+12.5
1319	+12.0

Comp. By D. C. Mc
✓ By JPW
Typed By PAC
✓ By DCMc

OBSERVED TIDES, NIKISKI (Cook Inlet) ALASKA

WIRE DRAG

23 JUNE 1961 "G" DAY

TIME	TIDE HEIGHT (Feet)
0713 to 0725	+ 6.5
0736	+ 7.0
0747	+ 7.5
0756	+ 8.0
0806	+ 8.5
0816	+ 9.0
0826	+ 9.5
0836	+10.0
0846	+10.5
0857	+11.0
0902	+11.5
0918	+12.0

24 JUNE 1961 "H" DAY

TIME	TIDE HEIGHT(Feet)
0759 to 0810	+ 5.0
0820	+ 5.5
0830	+ 6.0
0840	+ 6.5
0849	+ 7.0
0857	+ 7.5
0905	+ 8.0
0914	+ 8.5
0922	+ 9.0
0929	+ 9.5
0936	+10.0
0944	+10.5
0952	+11.0
1000	+11.5
1008	+12.0
1017	+12.5
1027	+13.0
1038	+13.5
1049	+14.0
1101	+14.5

4 AUGUST 1961 "J" DAY

TIME	TIDE HEIGHT(Feet)
1146 to 1157	+ 15.0
1210	+ 14.5
1222	+ 14.0
1234	+ 13.5
1245	+ 13.0
1256	+ 12.5
1306	+ 12.0
1317	+ 11.5
1327	+ 11.0
1338	+ 10.5
1348	+ 10.0
1359	+ 9.5
1411	+ 9.0
1423	+ 8.5
1436	+ 8.0
1449	+ 7.5
1504	+ 7.0
1521	+ 6.5
1542	+ 6.0
1657	+ 5.5
1710	+ 6.0
1723	+ 6.5

5 AUGUST 1961 "K" Day

TIME	TIDE HEIGHT (Feet)
0946 to 0957	+ 13.5
1010	+ 14.0
1024	+ 14.5
1040	+ 15.0
1100	+ 15.5
1128	+ 16.0
1242	+ 16.5

Comp By DCM
✓ By WJS
Typed By PAC
✓ By LTC

OBSERVED TIDES, NIKISKI (Cook Inlet) Alaska

WIRE DRAG

6 AUGUST 1961 "L" Day

TIME	TIDE HEIGHT (Feet)
122 to 0739	+ 2.0
0752	+ 2.5
0803	+ 3.0
0811	+ 3.5
0819	+ 4.0
0827	+ 4.5
0836	+ 5.0
0844	+ 5.5
0853	+ 6.0
0902	+ 6.5
0909	+ 7.0
0918	+ 7.5
0926	+ 8.0
0934	+ 8.5
0943	+ 9.0
0952	+ 9.5
1000	+10.0
1008	+10.5
1017	+11.0
1026	+11.5
1634	+12.0
1042	+12.5
1050	+13.0

Comp By WCMc

✓ By WJS

Typed By PAC

✓ By WCMc

18 AUGUST 1961 "N" Day

TIME	TIDE HEIGHT (Feet)
0925 to 0937	15.5
0948	15.0
1000	14.5
1011	14.0
1022	13.5
1032	13.0
1042	12.5
1052	12.0

7 AUGUST 1961 "M" Day

TIME	TIDE HEIGHT (Feet)
0902 to 0910	+ 3.5
0918	+ 4.0
0919 to 0925	+ 4.5
0933	+ 5.0
0941	+ 5.5
0949	+ 6.0
0957	+ 6.5
1004	+ 7.0
1012	+ 7.5
1020	+ 8.0
1028	+ 8.5
1037	+ 9.0
1044	+ 9.5
1052	+10.0
1100	+10.5

✓

OBSERVED TIDES, NIKISKI (Cook Inlet) ALASKA

WIRE DRAG

3 SEPTEMBER "Q" Day 1961

TIME	TIDE HEIGHT (Feet)
0548 to 0603	+ 4.0
0618	+ 4.5
0630	+ 5.0
0641	+ 5.5
0652	+ 6.0
0703	+ 6.5
0713	+ 7.0
0723	+ 7.5
0734	+ 8.0
0745	+ 8.5
0755	+ 9.0
0806	+ 9.5
0816 ✓	+10.0 ✓
0827	+ 10.5
0838	+11.0
0848	+11.5
0859	+12.0
1334 to 1348	+14.0
1349 To 1401	+13.5
1402 To 1414	+13.0
1428	+12.5
1443	+12.0
1458	+11.5
1513	+11.0
1530	+10.5
1547	+10.0

4 September "R" Day 1961

TIME	TIDE HEIGHT (Feet)
0731 to 0735	+ 4.0
0747	+ 4.5
0758	+ 5.0
0807	+ 5.5
0817	+ 6.0
0826	+ 6.5
0836	+ 7.0
0845	+ 7.5
0855	+ 8.0
0904	+ 8.5
0914	+ 9.0
0923	+ 9.5
0933	+10.0
0943	+10.5
0953	+11.0
1458 to 1510	+14.0
1523	+13.5
1538	+13.0
1552	+12.5

Comp By dlcmc
v By WJS
Typed By dlcmc
v By PAC

INFERRED TIDES, NIKISKI (Cook Inlet) ALASKA

WIRE DRAG

16 SEPTEMBER 1961 "S" Day

TIME	TIDE HEIGHT (Feet)
1200 to 1212	+ 7.0
1232	+ 6.5
1403	+ 6.0
1422	+ 6.5
1435	+ 7.0
1447	+ 7.5
1458	+ 8.0
1505	+ 8.5
1512	+ 9.0
1519	+ 9.5
1526	+10.0
1533	+10.5
1540	+11.0
1547	+11.5
1553	+12.0
1600	+12.5
1607	+13.0
1614	+13.5
1621	+14.0
1628	+14.5
1634	+15.0
1642	+15.5
1650	+16.0
1657	+16.5
1703	+17.0
1712	+17.5
1720	+18.0
1730	+18.5
1740	+19.0
1752	+19.5
1807	+20.0
1826	+20.5
1930	+21.0

Comp. By DCMc

✓ By PAC

Typed By DCMc

✓ By PAL

17 SEPTEMBER 1961 "T" Day

TIME	TIDE HEIGHT (Feet)
0645 to 0708	+14.0
0725	+14.5
0747	+15.0
0817	+15.5
0923	+16.0
0954	+15.5
1014	+15.0
1030	+14.5
1044	+14.0
1057	+13.5
1109	+13.0
1122	+12.5
1133	+12.0
1146	+11.5
1157	+11.0
1210	+10.5
1224	+10.0
1241	+ 9.5
1301	+ 9.0
1329	+ 8.5
1429	+ 8.0
1457	+ 8.5
1517	+ 9.0
1533	+ 9.5
1547	+10.0
1601	+10.5
1611	+11.0
1621	+11.5
1631	+12.0
1641	+12.5
1652	+13.0
1702	+13.5
1712	+14.0
1722	+14.5
1732	+15.0
1742	+15.5
1753	+16.0
1804	+16.5
1816	+17.0
1830	+17.5
1845	+18.0
1903	+18.5
1926	+19.0
2040	+19.5

INFERRED TIDES, NIKISKI (Cook Inlet) ALASKA

WIRE DRAG

20 SEPTEMBER 1961 "U" DAY

TIME	TIDE HEIGHT (Feet)
0500 to 0521	+ 1.0
0700	+ 0.5
0722	+ 1.0
0737	+ 1.5
0751	+ 2.0
0804	+ 2.5
0814	+ 3.0
0824	+ 3.5
0833	+ 4.0
0841	+ 4.5
0850	+ 5.0
0857	+ 5.5

21 SEPTEMBER 1961 "V" DAY

TIME	TIDE HEIGHT (Feet)
1200 to 1208	+16.5
1220	+17.0
1233	+17.5
1249	+18.0
1314	+18.5
1351	+19.0
1415	+18.5
1430	+18.0
1443	+17.5
1455	+17.0
1506	+16.5
1517	+16.0
1528	+15.5
1538	+15.0
1547	+14.5
1555	+14.0
1603	+13.5
1611	+13.0
1618	+12.5
1625	+12.0
1633	+11.5
1639	+11.0
1647	+10.5
1655	+10.0
1701	+ 9.5
1708	+ 9.0
1716	+ 8.5
1723	+ 8.0
1732	+ 7.5
1741	+ 7.0
1751	+ 6.5
1801	+ 6.0
1813	+ 5.5
1826	+ 5.0
1843	+ 4.5
1951	+ 4.0
2006	+ 4.5

COMP BY MCM

✓ BY PAC

TYPED BY MCM

✓ BY PAC

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8617WD FIELD NO. PF 20-2-61WD

Alaska, Cook Inlet, Vicinity of East Foreland

SURVEYED: May-Sept. 1961 SCALE: 1:20,000

PROJECT NO. SP-1-63

SOUNDINGS: 808 Fathometer CONTROL: Sextant fixes on shore signals

Chief of Party----------A. L. Wardwell
Surveyed by----------L. L. Wilkerson
R. A. Trauschke
D. C. McIntosh
W. G. Stokes
Protracted by----------C. A. J. Pauw
Verified by----------I. M. Zeskind
Inked by----------C. A. J. Pauw
Reviewed by----------I. M. Zeskind
Inspected by----------R. H. Carstens

Date: 5/7/65

(a) Purpose of the Survey

The purpose of the wire-drag survey is to assure that the Nikiski Fuel Pier area and approaches have a clear depth of 35 ft.

(b) Shoreline and Control

The source of the control is adequately described in the Descriptive Report.

The shoreline originates with unreviewed photogrammetric surveys T-12040, T-12046, and T-12049 of 1960.

(c) Comparison with Hydrographic Surveys

1. H-3196 (1910), 1:40,000
H-3198 (1910), 1:120,000
H-3199 (1910), 1:100,000

The effective depths of the present wire-drag survey do not conflict with the depths on the above listed surveys.

2. H-8618 (1961), 1:20,000

The effective depths on the present wire-drag survey do not conflict with the depths on the unverified survey H-8618. Several soundings have been carried forward from the present wire-drag survey to the unverified survey H-8618.

(d) Comparison With Chart 8553 (Latest Print Date 11-25-63

1. Hydrography

Except as noted below no other conflicts between the charted and effective wire-drag depths of the present survey were noted.

The 5 1/2-fm. sounding charted in lat. 60°36.8', long. 151°25.7' is from a reconnaissance survey by the Nikiski Pipe Line Co. in 1960 (Bp 60280) where it is shown as 5 3/4 fms. The area in which the sounding appears was cleared on the present survey by a wire drag whose effective depth was 38 ft. The 5 3/4 fm is considered disproved and should be deleted from the chart.

The 5 3/4 fm. sounding charted in 60°43.65', long. 151°27.90', from the boat sheet of H-8618 (1961) was revised to 6 1/2 fms. during the smooth plotting of H-8618. The 6 1/2 fm. sounding is cleared by a wire drag set to an effective depth of ~~36~~ 33 ft. on the present survey.

Corr by D.E.W. 6/23/66

A 6 fm. depth charted in lat. 60°36.2', long. 151°25.2' from H-3196 (1910) was cleared by an effective depth of 38 ft. on the present survey. The actual sounding on H-3196 is 38 ft., however, and is not disproved by the present survey.

2. Aids to Navigation

There are no floating aids to navigation falling within the limits of the present survey. The present survey positions of the fixed aids are in agreement with their charted positions and adequately mark the features intended.

(e) Condition of Survey

1. Field Work

The field work was satisfactorily accomplished.

2. Records

The information revealed in the wire-drag volumes is generally adequate except that insufficient or inadequately explained notes in the wire-drag records made it difficult to smooth plot the survey. (See 2nd paragraph, page 3 of the Descriptive Report.)

3. Descriptive Report

The Descriptive Report is complete and comprehensive.

4. Field Plotting

The field plotting is satisfactory.

(f) Compliance with Project Instructions

The survey adequately complies with the project instructions.

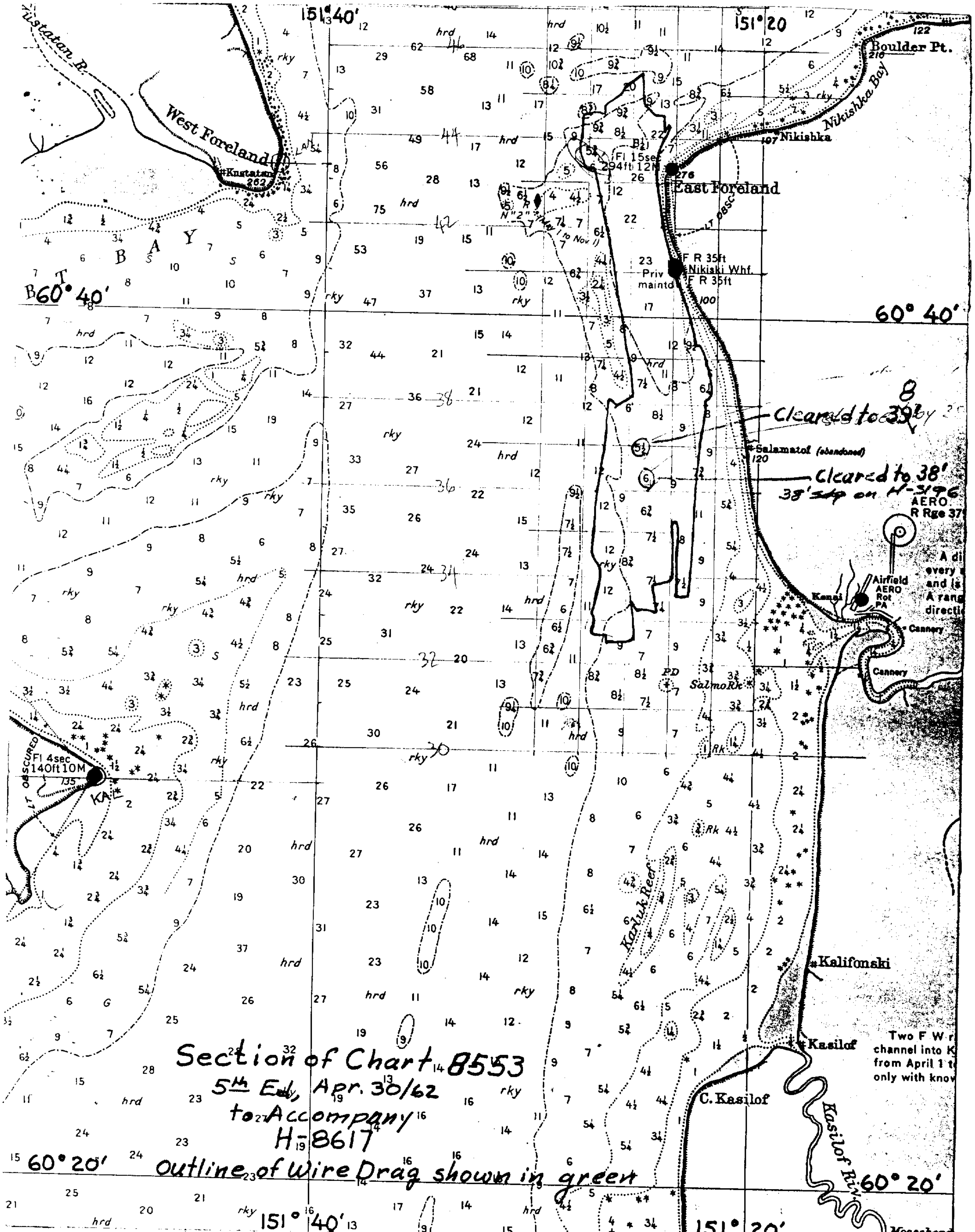
(g) Additional Work Recommended

No additional field work is recommended.

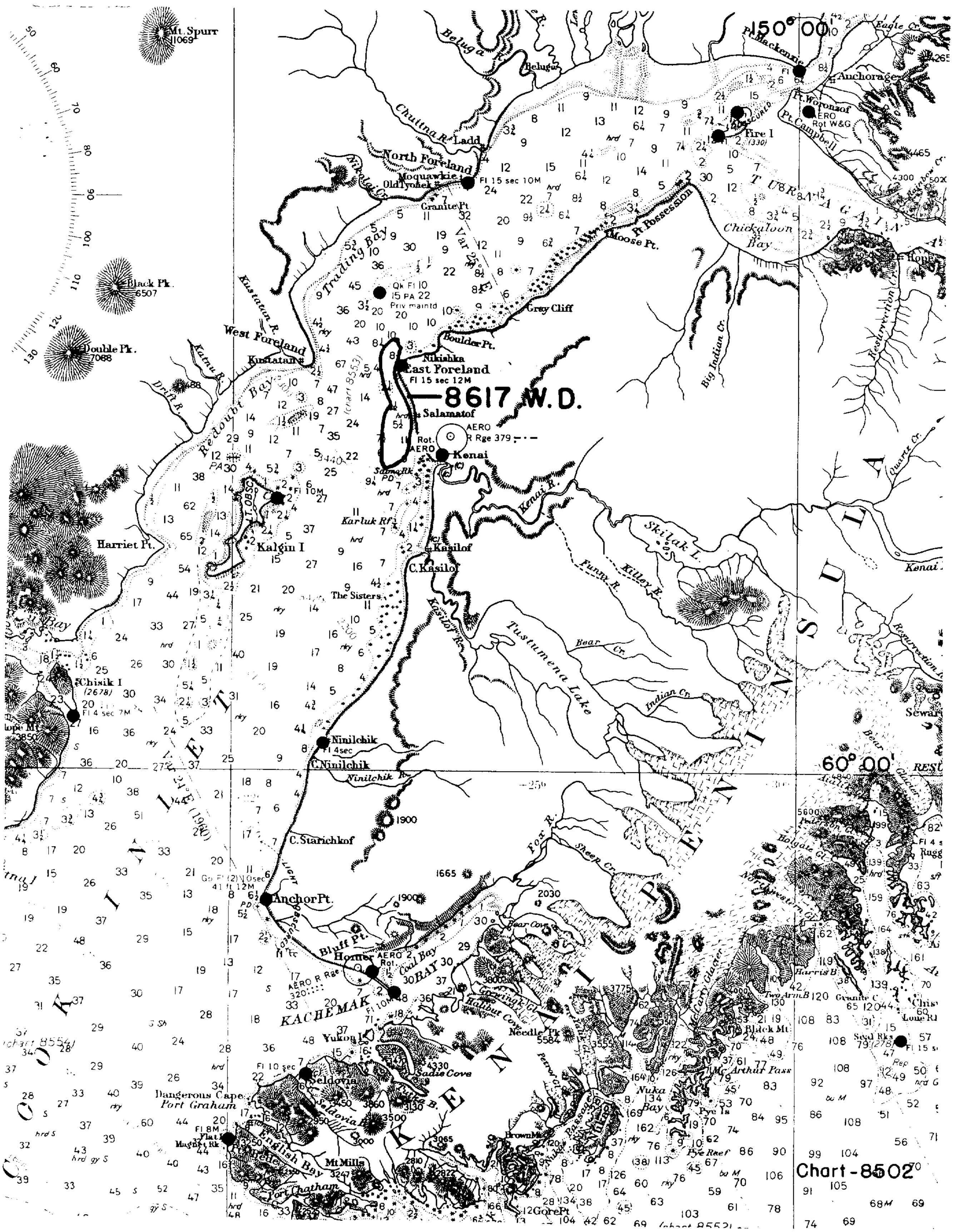
Wallace A. Hunter
Acting Chief,
Marine Chart Division

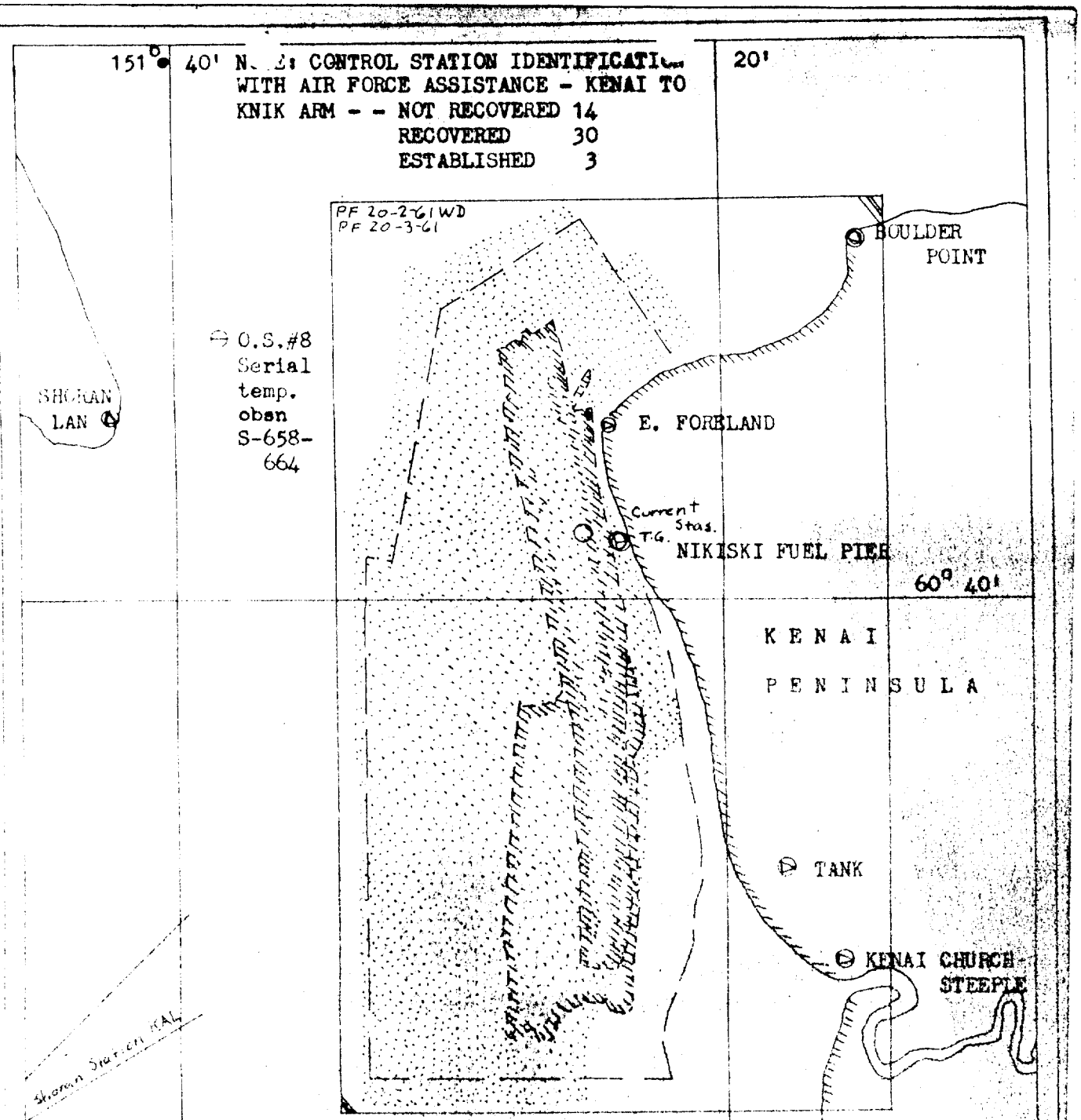
Examined and Approved:

Associate Director,
Hydrography and Oceanography



Kustatan R.
West Foreland
Kustatan
East Foreland
Boulder Pt.
Nikishka Bay
Nikishka
Fl 15sec 294ft 12M
F R 35ft
Nikiski Whf.
F R 35ft
Priv maintd
Salamatof (abandoned)
Cleared to 39'
Cleared to 38'
38' sdg on H-3196
AERO. R Rge 37
Airfield AERO Rot PA
Kenai
Cannery
Cannery
SalmoRk
Karluk Reef
Kalifonski
Kasilof
C. Kasilof
Kasilof Riv
Moosehead
Two F W r channel into K from April 1 t only with know
Fl 4sec 140ft 10M
LT OBSCURED
KAL
151° 40'
151° 20
60° 40'
60° 40'
60° 20'
60° 20'
151° 40'
151° 20'
Section of Chart 8553
5th Ed, Apr. 30/62
to Accompany
H-8617
Outline of Wire Drag shown in green


150° 00'
Mt. Spurr 11069
Black Pk. 6507
Double Pk. 7088
Beluga R.
Beluga
Pt. Mackenzie
Anchorage
Pt. Woronzof
Pt. Campbell
Fire I
Chuitna R.
Ladd
North Foreland
Moquawkie
Old Tyonek
Fl 15 sec 10M
Granite Pt.
Pt. Possession
Moose Pt.
Chickaloon Bay
Trading Bay
Gray Cliff
Boulder Pt.
West Foreland
Nikishka
East Foreland
Fl 15 sec 12M
8617 W.D.
Salamatof
Kenai
Redoubt Bay
Drift R.
Kustatan R.
Kalgin I
Harriet Pt.
Karluk Rf
Kasilof
C. Kasilof
Kenai R.
Skilak L.
Funny R.
Killey R.
Big Indian Cr.
Resurrection Cr.
Tustumena Lake
Indian Cr.
Bear Cr.
The Sisters
Chisik I
Ninilchik
Fl 4sec
C. Ninilchik
60° 00'
C. Starichkof
Anchor Pt.
Fox R.
Sheep Cr.
Bluff Pt.
Homer
Coal Bay
Kachemak Bay
Bear Cove
Halibut Cove
Needle Pk
Yukon I
Sadie Cove
Seldovia
Dangerous Cape
Port Graham
English Bay
Mt Mills
Port Chatham
Flat I
Gore Pt
Nuka Bay
Nuka Passage
Pye Is
Pye Reef
McArthur Pass
Black Mt
Two Arm B
Harris B
Northwestern Gl.
Holgate Gl.
Seward
Kenai Peninsula
Cook Inlet
Chart-8502



SPECIAL PROJECT 1-61
NIKISKI PIER AREA, COOK INLET, ALASKA
HYDROGRAPHIC AND WIRE DRAG SURVEY
ARTHUR L. WARDWELL, CAPT, COMDG.
USC&GS SHIP PATHFINDER
SCALE OF CHART 8553
MAY 1961
JUNE 1961
JULY 1961
AUGUST 1961
SEPTEMBER 1961

(Also 30 hr. Current Obs. Homer, Alaska)

ADDENDUM TO DESCRIPTIVE REPORT
WIRE DRAG SURVEY No. H-8617 W.D.
Field No. PF -20 - 3 - 61

During the completion of the smooth plotting, after preliminary review had been made, the following descrepancy was noted:

On J day (Aug 4) Launch #2 (interpreted to be the guide launch) Volume 5, page 20, position No. 8, as originally recorded reads as follows:

```
   IVY   12°  04'
   FOR
   BOO   46°  07'
 - FOR  130°
 - FOR   48°  ?
```

The above data was transferred to Volume 2, page 11, and this was the source from which position 8J was originally plotted.

During the review, apparently two entries were made so as to make the data for position 8J now read:

```
IVY   11°  04' (changed from 12° 04')
FOR
BOO   46°  07'
BOO -130°      (changed from FOR)
FOR - 48°  ?   (ok to near Buoy Pos.8)
```

Observe that the position obtained by this "corrected" data appears to disregard that Launch #2 decreased speed from 1000 RPM to 700 RPM exactly 2 min. 15 sec. after Position No. 7, which also seems to be about the time the drag was observed to hang. The decreased speed of the launch should cause the distance between positions 7 to 8 to be shorter than the distance between position 6 to 7. Please note that the time laps between positions 7 to 8 is only 4 minutes whereas the time laps between positions 6 to 7 is 5 minutes. The difference in time laps between fixes again indicates that the distance between 7 and 8 should be shorter than the distance between positions 6 to 7.

Unimportant. Position of hang is practically the same by field or office plotting IMZ

Position 8J as plotted by the corrected data causes the distance between 7 and 8 to scale about 360 meters, while the distance between 6 and 7 only scales about 340 meters on the ground. The original data plots position 8J so that the distance 7 to 8 scales about 210 meters.

Under normal circumstances towing vessels invariably tend to approach one another when a drag is hung. The ground distance between launches Nos. 1 and 2 scales about 656 meters at position #7. The hang occurs about 2 minutes after position #7. The ground distance between these launches scales about 700 meters at position #8, as plotted on the corrected data; i.e. after "hangingeup" the drag, we now find the distance between the towing vessels increased by about 44 meters. This does not seem plausible and quite unlikely. The ground distance between the towing vessels as plotted from the original data scales about 490 meters.

The angle FOR -48° drawn from the corrected position does not fit, passing neither through End Launch position nor through Far Buoy position. This check angle as drawn from the original position passed very nearly through the location of the Far Buoy.

In view of the above observations, the reviewer is respectfully requested to re-examine the present plotting of Position 8J.

Cornelius A. J. Pauw
Cartographer

Approved:

William M. Martin
Supervisory Cartographer

Approved and Forwarded:

Ira R. Rubottom, Captain, C&GS
Deputy Regional Officer

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8817 W.D.

Name on Survey	A On Chart No. 8573	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	
BOULDER POINT	✓									1
COOK INLET	✓									2
EAST FORELAND	✓									3
KENAI RIVER	✓									4
										5
										6
										7
										8
										9
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										25
										26
										27

George D. Shaw
Chief Examiner
21 Oct 1963

Form 946

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8617 W.D.

Records accompanying survey: Smooth sheets ..1...;

boat sheets .2 (mylar).; sounding vols. .....; wire drag vols. ..9..;

Descriptive Reports ..1..; graphic recorder envelopes .1...;

special reports, etc. 1-A & D Sheet, 1-Set wire drag strips.....

....

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

Number of positions on sheet		877
Number of positions checked		53
Number of positions revised		4
Number of soundings revised (refers to depth only)		......
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		0
Topographic details	Time	......
Junctions	Time	0
Verification of soundings from graphic record	Time	1
Special adjustments	Time	......

Verification by AM Zeskind .... Total time 45 .... Date ~~4/30/63~~ ~~4/4/65~~ 5/7/65

Reviewed by AM Zeskind .... Time 36 .... Date ~~5/4/63~~ 5/14/65

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 8617 W.D.

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
8553	10/4/63	J W K	~~Full~~ Part Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No.
8553	10/20/66	John P. Weis	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. Fully applied
8502	7/66	C Mosfeldt	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. No correction.
INSET 8553	7-19-71	R. J. Daroska	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. FULLY APPLIED NO CORR TO NEW NIKISKI INSET ONLY 1:10,000
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63