7753

RESTRICTED

CONFIDENTIAL

Diag. Cht. No. 9400

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. AR-4149-W *Office No.* H-7753

LOCALITY

State Alaska

General locality Arctic Coast

Locality Icy Cape to ~~6 miles Southwest of~~ Utukok Pass

194 9 - 50

CHIEF OF PARTY

R.A.Earle

LIBRARY & ARCHIVES

DATE Feb. 21, 1950

B-1870-1 (1)

7753

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

~~RESTRICTED~~

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-7753

See also title sheet for 1950 work

Field No. AR-4149-W

State ALASKA

General locality Arctic Coast, ~~Wainwright to Point Lay, Alaska.~~

Locality Icy Cape to ~~6 miles southwest of~~ Utukok Pass.

Scale 1:40,000 Date of survey Aug. and Sept. 1949
Aug. 1950

Instructions dated 4 February 1948 and 15 February 1949

Vessel ARCTIC SHORE PARTY

Chief of party R. A. Earle

Surveyed by David M. Whipp

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

Fathograms scaled by Harold Hubbard,

Fathograms checked by R. E. Westermann.

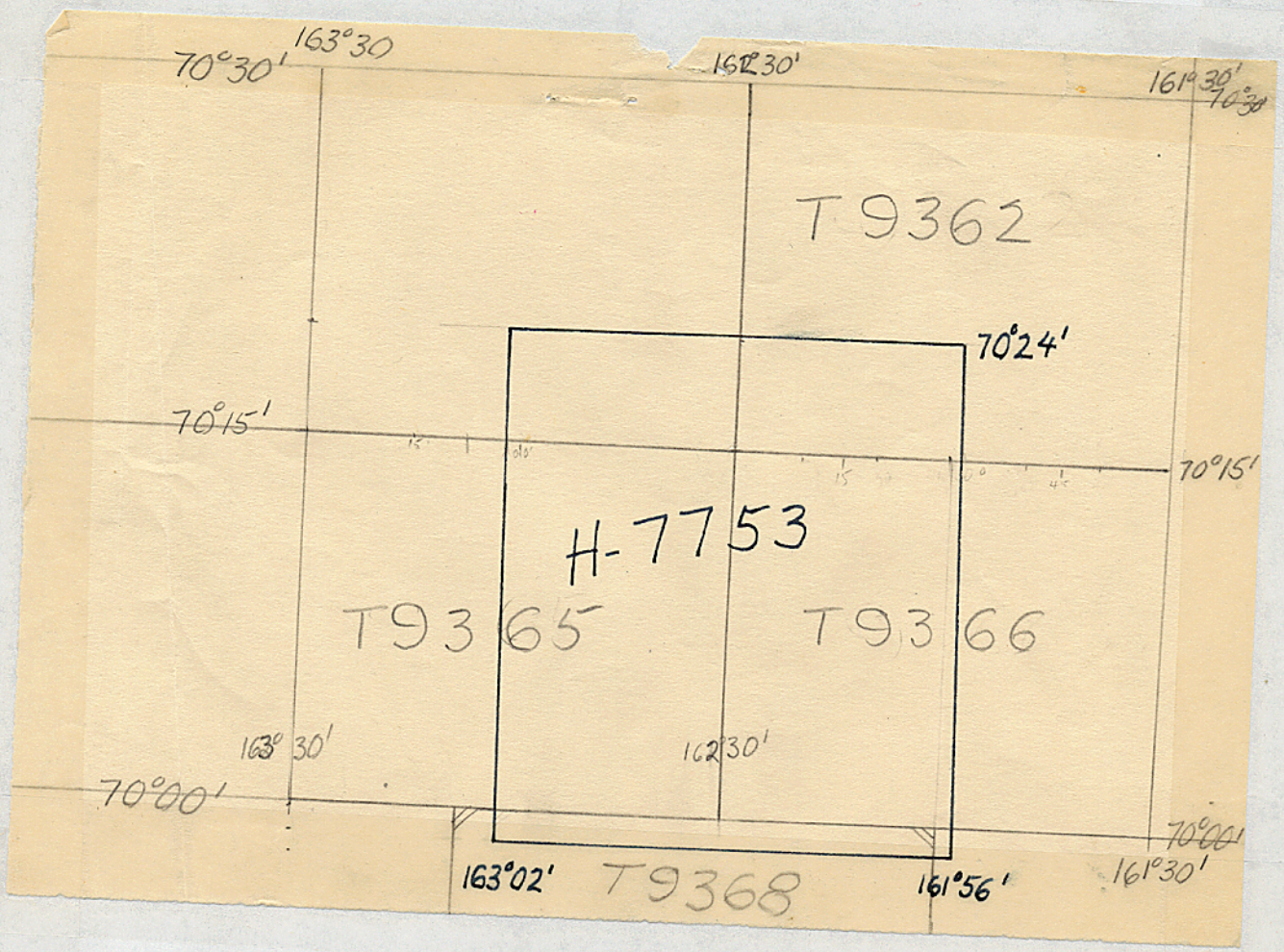
Protracted by C. A. J. Pauw

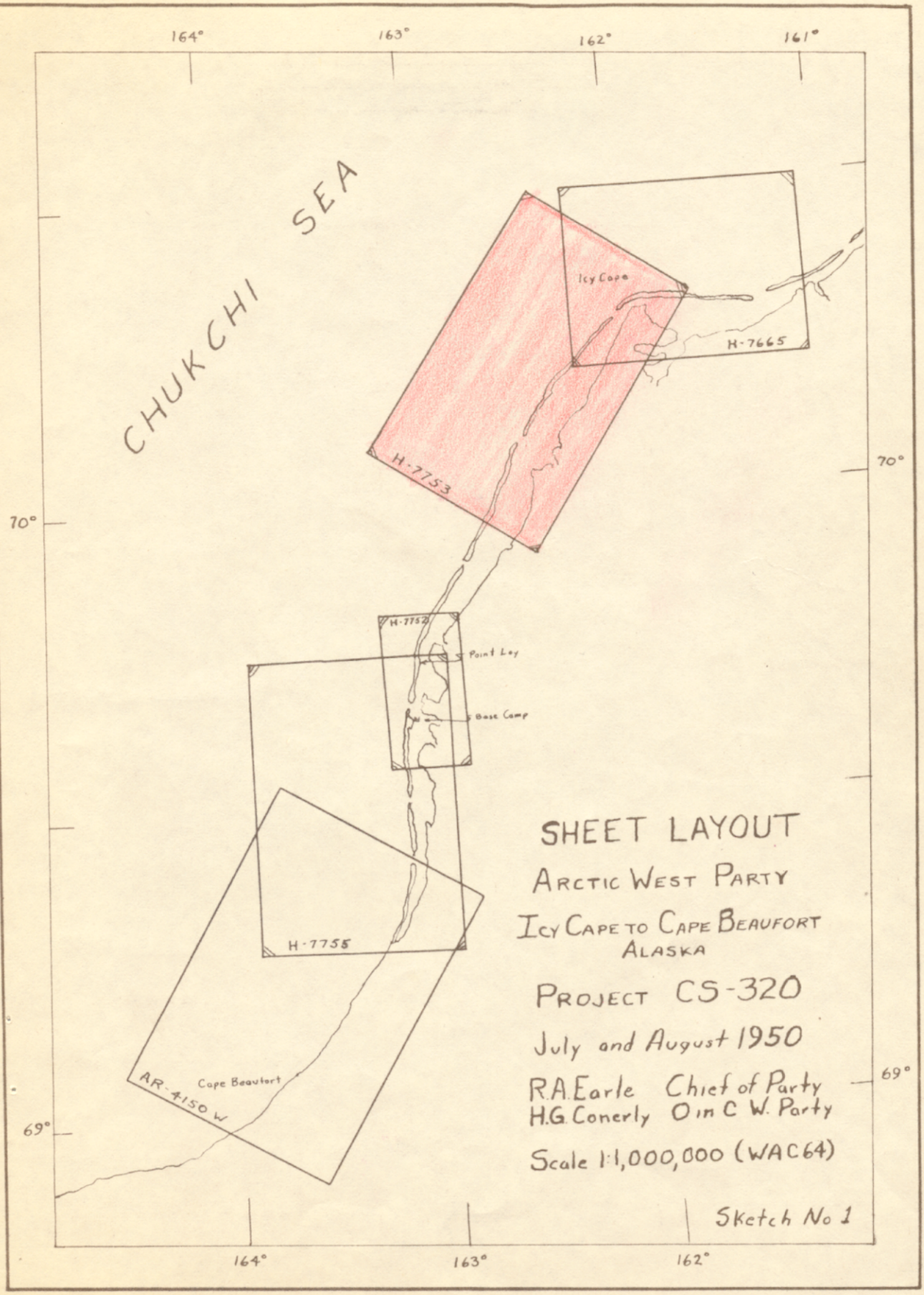
Soundings penciled by C. A. J. Pauw

Soundings in ~~fathoms~~ feet at ~~MLW~~ MLLW

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 693019


70°30'
163°30
162°30'
161°30'
70°30
T9362
70°24'
70°15'
H-7753
T9365
T9366
163°30'
162°30'
70°00'
163°02'
T9368
161°56'
161°30'


164°
163°
162°
161°
CHUKCHI SEA
Icy Cape
H-7665
H-7753
70°
H-7752
Point Lay
Base Camp
H-7755
Cape Beaufort
AR-4150 W
69°
SHEET LAYOUT
ARCTIC WEST PARTY
ICY CAPE TO CAPE BEAUFORT
ALASKA
PROJECT CS-320
July and August 1950
R.A. Earle Chief of Party
H.G. Conerly O in C W. Party
Scale 1:1,000,000 (WAC64)
Sketch No 1

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY NO. H-7753 (Field No. AR-4149W)
ICY CAPE TO 6 MILES SOUTH OF UTUKOK PASS
ARCTIC COAST OF ALASKA
AUGUST - SEPTEMBER
SCALE 1: 40,000

ROBERT A. EARLE - - - - CHIEF OF PARTY
KARL B. JEFFERS - - - - IN CHARGE OF FIELD WORK

A: PROJECT This sheet is part of Project CS-320, basic surveys along the Arctic Coast of Alaska and was done under authority contained in supplemental instructions dated 4 February, 1948 and 15 February, 1949.

B: SURVEY LIMITS AND DATES This survey covers the inshore area along the Arctic Coast from Icy Cape Pass, to a point about 6 miles south of Utukok Pass. A junction is made at the north end of the sheet with Hydrographic Sheet Nos. H-7665, (1948-50) and H-7751, (1949) Field Nos. AR-4348 W, and AR-2149 W. and at the south end of the sheet a junction is contemplated with Hydrographic Sheet No. H-7754 in 1950. (Junction made in 1950)

Work was commenced on this sheet on 7 August 1949, and discontinued on 11 September 1949. (completed Aug. 1950)

C: VESSEL AND EQUIPMENT A thirty-five foot rearmimg boat was modified for use as a Hydrographic Launch. Modification consisted of removal of fenders, construction of canvas canopy extending full length of well deck, construction of plywood pilot house, raising of steering wheel and clutch lever, andstandard installation of 808 fathometer and outboard fish. The party operated from a temporary camp at Icy Cape.

Soundings were taken with 808 type recorders Nos. ~~S55 and~~ S106.

D: TIDES AND CURRENT STATIONS There were two tide stations used to control hydrography on this sheet. The main tide gage at Point Lay Camp, called the Powruk tide gage, was a portable automatic tide gage, installed in the Lagoon near Point Lay Camp. The Icy Cape tide gage was a portable automatic tide gage, installed in the Lagoon on the north side of Icy Cape Pass. There was no time and range factor between the two gages. The reducers were taken from the Icy Cape gage during the periods that it was operating, and from the Powruk gage at such times that the Icy Cape gage was not operating.

No current stations were occupied in this area.

E: SMOOTH SHEET The smooth sheet was constructed by personnel at the Seattle Processing Office and plotted by personnel of the Arctic Field Party.

F: CONTROL STATIONS Control is based on the second order arc of triangulation along the coast which was executed by the Arctic Field Party in 1948 and 1949, Hubert A. Paton, Chief of Party. The field computations are based on the 1945 Barrow datum. Hydrographic signals were located by theodolite cuts at triangulation stations, and all signal positions were computed.

G: SHORELINE AND TOPOGRAPHY No plane table work was done by this party. Field notes were recorded to assist in the identification of control on air-photos on the area. The shoreline will be drawn ~~on~~ from air-photos compilation s in ~~another~~ the Washington office. No photographs of the area were available to this party. The range of the tide was too small to permit the location of the low water line by hydrographic methods.

H: SOUNDINGS Soundings were recorded to the nearest 0.5 foot by means of an 808 type recording fathometer No. S106.

I: CONTROL OF HYDROGRAPHY All soundings lines were controlled by sextant fixes on objects ashore. No unusual or sub-standard methods were employed.

J: ADEQUACY OF SURVEY The survey is incomplete. It is contemplated that the survey will be completed in 1950, There are no splits or undeveloped shoal soundings in the area covered this season. (work completed in 1950)

K: CROSS LINES The survey is incomplete, and it is contemplated that additional cross lines will be run in 1950. The crossings in this seasons work are good.

L:: COMPARISON WITH PRIOR SURVEYS
There were no previous surveys in the area by this Bureau.

M: COMPARISON WITH CHART NO. 9400 This is the only chart of this area and is on too small a scale to permit publication of detailed hydrography in the lagoon. (chart 9402 also covers this area) Review paragraph 6a

N: DANGERS AND SHOALS The area in the vicinity of Utukok Pass is not completely developed. (developed in 1950) The few lines in the vicinity of the pass, done this season, indicate that the usual channel with bars exist at the entrance to the pass. It is recommended that an area about 1 square mile in the vicinity of the pass be blocked off of this sheet and surveyed, with the anchorage in the lagoon, at a scale of 1:10,000 or larger, as the passes are difficult to work on the scale of 1:20,000. It is further recommended that the channels in the Lagoon be sketched on the boat sheet from air photographs prior to survey.

O: COAST PILOT INFORMATION
See Special Report on Coast Pilot Notes.

P: AIDS TO NAVIGATION There are no aids to navigation in the area.

R: GEOGRAPHIC NAMES It is recommended by the hydrographer that the pass near the center of the sheet be called UTUKOK Pass. A Geographic name report is being prepared under separate cover to be submitted at a later date. There are no other new Geographic names in the area.

Z: TABULATION OF APPLICABLE DATA

(a) Attached hereto:

1. Tabulation of Statistics
2. Tide Note
3. Velocity of Correction Abstract
4. Lis of Signals

(b) Special Reports submitted under separate cover.

1. Geographic Names
2. Coast Pilot Notes
3. Temperature & Salinity Observations *filed with H-7754*
4. Landmarks for Charts

David M. Whipp
Lieut. USC&GS

[redacted]

LIST OF HYDROGRAPHIC SIGNALS
Sheet No. H-7753 (AR 4149 W)

Hydrographic name	Source
ALBUM	ALBUM, 1949
Ban	Theodolite cuts, 1949
Bar	" " "
Bay	" " "
Bid	" " "
Boy	" " "
CIA	ACACIA, 1949
Car	Theodolite cuts, 1949
CON	CONVOY, 1949
Dad	Theodolite cuts 1949
DAR	Radar Screen, Icy Cape, 1948
DAN	Theodolite cuts, 1949
DIAL	DIAL, 1949
Dib	Theddolite cuts, 1949
Dog	" " "
Dug	" " "
DUZ	" " "
EID	EIDER, 1949
ELK	Theodolite cuts, 1949
Fed	" " "
FER	FERRY, 1949
Fig	Theodolite cuts, 1949
Foo	" " "
Fro	" " "
FUR	" " "
Gob	" " "
Hag	" " "
Hap	" " "
HEP	" " "
House	Stove Pipe, Largest House, Icy Cape, 1948
ICY	ICY CAPE, 1949
JAP	Theodolite cuts, 1949
JACK	JACKAL, 1949
KOK	UTUKOK N. W. BASE, 1949
LAND	ROLAND, 1949
Lam	Theodolite cuts, 1949
Lob	" " "
LUS	CAMALUS, 1949
Nut	Theodolite cuts, 1949
Pole	Range Pole (Coast Guard) 1948
PERRY	PERRY, 1949
RACE	GRACE, 1949

Statistics

[redacted]

for

Hydrographic Survey No. H-7753 (Field No. AR 4149 W)

Date	Day Letter	Vol.	No. Pos.	St.Mi.Sdgs.	H.L.Sdgs.
8-7-49	a	1	51	23.1	0
8-31-49	b	1	60	23.0	0
9-1-49	c	1	69	39.6	0
9-8-49	d	2	74	31.0	0
9-10-49	e	2	170	65.1	0
9-11-49	f	2 & 3	111	56.2	0
		Total	535	238.0	0
		Total:	Sq. Sta. Miles	31.0	

VELOCITY CORRECTIONS AR-4149-W H-7753

28 July to 14 September 1949

Fathometer # S 106.

Depth	Corr.
10.0	+ 0.8
22.0	+ 0.6
33.5	+ 0.4
43.5	+ 0.2
53.5	0.0
61.0	- 0.2
85.0	- 0.5
109.0	- 1.0

TIDE NOTE (1949)
SHEET NO. AR-4149W

Station location: Icy Cape, Lat. 70 17.9; Long. 161 56.6
Pt. Lay Base Camp, Lat. 69 38.3; Long. 163 08.1

Plane of Reference: Mean Lower Low Water, which is 2.0 feet on the staff at Icy Cape, and 3.2 feet on the staff at Point Lay Base Camp.

Soundings were reduced to mean lower low water from portable automatic tide gage records at Icy Cape when available, and from the records at Point Lay Base Camp when the Icy Cape gage was not in operation.

RESTRICTED

APPROVAL SHEET

H-7753 (1949 work)

It was not possible for the Chief of Party to make frequent inspections of all the widely separated units engaged in hydrographic surveys, such inspections being assigned to the officer in charge of field work in each camp.

The smooth sheet and records have been examined by the writer or Comdr. Jeffers and are approved. The survey of this area has not been completed, additional work being needed. (completed in 1950)

R. A. Earle
Comdr. USC&G Survey
Chief of Party

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~ 31 March 1950

Division of Charts: R. H. Carstens

Plane of reference approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 7753

Locality Utukok Pass, Arctic Coast, Alaska

Chief of Party: R. A. Earle in 1949
Plane of reference is mean lower low water, reading
3.2 ft. on tide staff at Point Lay Camp
3.2 ft. below B. M.1 (1949)

2.0 ft. on tide staff at Icy Cape
12.6 ft. below B. M. ACACIA 1949

Height of mean high water above plane of reference is 0.60 foot.

Condition of records satisfactory except as noted below:

E. C. McKay
Section
Chief, ~~Division~~ of Tides ~~and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 756675

GEOGRAPHIC NAMES

Survey No. H-7753

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
Arctic Coast										2
Chukchi Sea									USGB ✓	3
										4
Icy Cape									USGB ✓	5
Kasegaluk lagoon										6 ✓
Utukok Pass										7 ✓
Utukok River										8
										9
										10
										11
				Names underlined in red are approved. 3-29-50 L. Heck						12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7733 (1949 work)

Records accompenying survey:

Boat sheets 1; sounding vols. 3; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 6 envel.;

special reports, etc. .....

.....

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

Totals for 1949-50 listed with 1950 wk.

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

Verification by.....Total time ..... Date .....

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

M-2232-1

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-7753

Field No. AR-4149-W

State ALASKA

General locality Arctic Coast, ~~Wainwright to Point Lay, Alaska~~

Locality Icy Cape to ~~6 miles southwest of~~ Utukok Pass

Scale 1:40,000 Date of survey August 1950

Instructions dated 4 February 1948, 15 February 1949 and 8 March 1950

Vessel ARCTIC FIELD PARTY

Chief of party R.A. EARLE

Surveyed by DAVID M. WHIPP AND HORACE G. CONERLY

Soundings taken by fathometer, graphic recorder, ~~hand lead or pole~~

Fathograms scaled by HAROLD A. HUBBARD & W. DRAGON

Fathograms checked by HORACE G. CONERLY & W. SHOEMAKER

Protracted by BURNETT SMITH

Soundings penciled by BURNETT SMITH

Soundings in ~~fathoms~~ feet at ~~MEAN~~ MLLW

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 693019

ADDENDUM TO
DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY NO. H-7753 (Field No. AR-4149-W)
ICY CAPE TO 6 MILES SOUTH OF UTUKOK PASS
ARCTIC COAST OF ALASKA
AUGUST 1950
SCALE 1:40,000

ROBERT A. EARLE — CHIEF OF PARTY
HORACE G. CONERLY — CHIEF OF SUB-PARTY

A: PROJECT The additional work covered by this addendum is a part of Project CS-320, basic surveys along the Arctic Coast of Alaska, and was accomplished under authority contained in supplemental instructions dated 8 March 1950.

B: SURVEY LIMITS AND DATES This additional work extends from a point about 6 miles south of Utukok Pass, along the Arctic Coast to Icy Cape. It makes a junction at the north with Hydrographic Sheet No. H-7665, (1948-50) on the east with the work done in 1949 on this same sheet, and on the south with Hydrographic Sheet No. H-7754. (1949-50) The entrance and anchorage at Utukok Pass are to be included on this sheet, however, the field work for the entrance was done on a larger scale boat sheet labeled AR-2150-W. This additional work was started on 1 August and was completed on 23 August 1950.

C: VESSELS AND EQUIPMENT Remarks under this heading contained in the original descriptive report are adequate, except that soundings were obtained with 808J type recorders No's. 55S, 73S, and ~~104S,~~ 106S

D: TIDES AND CURRENT STATIONS A portable automatic tide gage, known as the Powruk gage, was operated at the base camp, 8 miles south of Point Lay village. During the 1949 field season, tide gages were maintained at both Icy Cape and Powruk. Since a study of the 1949 tide records by the Washington Office indicated "no time difference", or "range factor" between these gages, the Powruk gage was used for the reduction of soundings in 1950. No current stations were occupied.

E: SMOOTH SHEET The smooth sheet was constructed in 1949 by personnel at the Seattle Processing Office, and plotted by personnel of the Arctic Field Party.

F: CONTROL STATIONS Remarks under this heading, which were contained in the original descriptive report, are applicable to the 1950 work. Eighty foot wooden towers were built over stations EAT, which was located in 1948, and POLE. Station TOWER, which is a 100 foot radar screen, is a new signal which was located by sextant angles.

G: SHORELINE AND TOPOGRAPHY Remarks under this heading in the original report are applicable. No additional work was accomplished.

H: SOUNDINGS The soundings were recorded with an 808J portable fathometers No's. 55S, 73S, and ~~104S.~~ 106S. There were no unusual corrections required. On 13 August 1950, while sounding with fathometer No. 55S, it was noted that the fathometer would slow up suddenly to apparently about 50-70% of normal speed. This condition was first noted near position 24a, and again on position 31a. An investigation indicated that the difficulty was caused by binding of the worm gear assembly at the power take-off and of the bodine motor. By readjusting the bearing, the excessive friction could be removed and the governor would bring the fathometer up to speed. At first it was expected that a condition of adjustment would be found which would permit the fathometer to operate continuously at proper speed, and each time the difficulty was reported the launch was stopped while the operator attempted to adjust the fathometer. Eventually it was decided that no permanent adjustment could be made, and since no other fathometer was available, sounding was continued. Each time the fathometer slowed up the bearing adjustment was changed slightly until the fathometer came up to speed. That portion of the fathogram where the fathometer was not up to speed was marked by the operator at the time it occured, and soundings were only read while the middle reed was vibrating.

I: CONTROL OF HYDROGRAPHY All sounding lines were controlled by sextant fixes on shore objects. No unusual methods were employed.

J: ADEQUACY OF SURVEY This survey is believed to be adequate.

K: CROSS LINES Crossings are within the limits of accuracy specified in the Hydrographic Manual. It has been noted that 8 crossings with a 2 foot discrepancy appear on the sheet. Undoubtedly, the latter discrepancies are due in part to an accumulation of small errors. For example, an examination of the fathograms indicates that the fathogram was about $\frac{1}{50}$% slow of "F" day, and about $\frac{1}{50}$% fast on "C" day. These two speed discrepancies are not large enough to justify a correction, but where the two lines cross, a $\frac{1}{2}$ foot crossing error can be expected. It is believed, however, that ice gouging is responsible for most of the 2 foot crossings. Soundings on crossline between 112E and 117E represent a good picture of the bottom due to ice gouging. It is recommended that the shoaler soundings be charted at the crossings.

Ice gouging not responsible. Phase change erratic, would not average out. See Review par. 7c

improbable - depths too great.

L: COMPARISON WITH PRIOR SURVEYS There are no previous surveys in the area by this Bureau.

M: COMPARISON WITH CHART NO. 9400 This is the only chart of this area, and it is on too small a scale for a satisfactory comparison with the 1950 detailed hydrography.

Review paragraph 6a

N: DANGERS AND SHOALS The shoals at the entrance to Utukok Pass, mentioned in the original descriptive report, were developed, and no new shoals were indicated. These entrances are subject to annual change, and local information should be obtained before using them.

O: COAST PILOT INFORMATION Coast Pilot Information was submitted in Special Reports at the end of the 1949 and 1950 seasons. No additional information was obtained.

P: AIDS TO NAVIGATION There are no existing aids to navigation.

Q: LANDMARKS FOR CHARTS There are no landmarks for charts within the area of this sheet. Station TOWER which was used as a hydrographic signal on the sheet will appear as a landmark on sheet H-7665.

R: GEOGRAPHIC NAMES A "Geographic Names Report" has been submitted under separate cover. A list of the geographic names appearing on the sheet is attached to this report.

U: DAY LETTERS Day letters for launch No. 2 in 1950 were inadvertently shown in red. As this duplicated the day letters for launch No. 1 for the 1949 season, those for launch No. 2 (1950) were doubled during the smooth plot in order to avoid duplication. "H" day for launch No. 1 was originally labeled "a" day on boat sheet AR-2150-W. This days work has been plotted on the smooth sheet, H-7753, as "H" day. It appears in volume IV after "G" day. The foregoing explains why "H" day is under date of August 22, 1950, and "G" day is under date of August 23, 1950.

Z: TABULATION OF APPLICABLE DATA

(a) Attached hereto:

1. Tabulation of statistics, 1950
2. Tide Note, 1950
3. Abstract of Velocity Corrections
4. List of additional signals
5. List of Geographic Names

(b) Special Reports submitted under separate cover:

1. Descriptive Report to accompany Hydrographic Sheet No. H-7753, Field No. AR-4149-W.
2. Geographic Names, 1950
3. Coast Pilot Notes, 1949
4. Temperature and Salinity Observations 1950 filed with H-7858
5. Landmarks for Charts
6. Coast Pilot Notes, 1950
7. Tide Report, Arctic Coast 1950

Respectfully submitted,

David M. Whipp

David M. Whipp
Lieut., USC&G Survey

Approved and Forwarded:

R. A. Earle

R. A. Earle
Comdr., USC&G Survey
Chief of Party

LIST OF ADDITIONAL SIGNALS
HYDROGRAPHIC SHEET NO. H-7753
FIELD NO. Ar-4149-W

Name used in survey	Source
EAT	Theodolite Cuts 1948
TOWER	Sextant Fix 1950 (Page 2, Vol. No. 4)

Sextant cuts to locate signal TOWER are found on Page 2 of Volume No. 4.

ADDITIONAL STATISTICS

FOR

HYDROGRAPHIC SURVEY NO. H-7753 (Field No. AR-4149-W)

Date	Day Letter	Vol.	No.Pos.	St.Mi.Sdgs.	H.L. Sdgs.
Launch No. 1					
8-1-50	A (red)	4	132	42.5	0
8-2-50	B (red)	4	210	89.1	1
8-3-50	C (red)	4	127	62.7	2
8-4-50	D (red)	5	74	27.1	0
8-14-50	E (red)	5	119	69.9	2
8-17-50	F (red)	5	117	60.6	3
8-23-50	G (red)	6	16	6.7	0
8-22-50	H (red)	6	64	5.8	0
Launch No. 2					
8-13-50	aa (blue)	7	130	81.6	0
8-14-50	bb (blue)	7	127	95.4	0
	1950 TOTALS		1116	541.4	8
	1949 TOTALS		535	238.0	0
	GRAND TOTALS		1651	779.4	8

FINAL:

Sq.Stat.Mi.	102
Stat.Mi.Sdg.L.	779.4
No. of Pos.	1651
H.L.Sdgs.	8

VELOCITY CORRECTIONS AR-4149-W H-7753

Fathometer No. 55S - - - - - - - - - - - - - - - - - August 1950

August 1, Launch No. 1

To Depth	Corr. A. Scale	Corr. B. Scale
5.5	-0.1	
12	-0.3	
18	-0.5	
23	-0.7	
28	-0.9	
33	-1.1	
38	-1.3	-2.8
43	-1.5	-3.0
47.5	-1.7	-3.2
52	-1.9	-3.4
56	-2.1	-3.6
60	-2.3	-3.8
64	-2.5	-4.0
68	-2.7	-4.2

August 13-14, Launch No. 2

6	0.0	
15	-0.2	
23	-0.4	
31	-0.6	
38.5	-0.8	-2.0
45	-1.0	-2.2
51	-1.2	-2.4
57	-1.4	-2.6
62.5	-1.6	-2.8
68	-1.8	-3.0

Fathometer No. 106S

August ~~13~~ 14, 17, 22 & 23, Launch No. 1

6	+0.4	
15	+0.2	
23	0.0	
31	-0.2	
38.5	-0.4	+0.6
45	-0.6	+0.4
51	-0.8	+0.2
57	-1.0	0.0
62.5		-0.2
68		-0.4
73.5		-0.6
79.0		-0.8

VELOCITY CORRECTIONS AR-4149-W H-7753

Fathometer No. 73S

August 2 - Launch No. 1 Pos. 1B to 9B, only.

To Depth	Corr. A. Scale	Corr. B. Scale
5.5	-0.5	
12	-0.7	
18	-0.9	
23	-1.1	
28	-1.3	
33	-1.5	
38	-1.7	+0.3
43	-1.9	+0.1
47.5	-2.1	-0.1
52	-2.3	-0.3
56	-2.5	-0.5
60	-2.7	-0.7
64	-2.9	-0.9
68	-3.1	-1.1

V.C. report with H-7858

August 3 - 4, Launch No. 1 also remainder of Bday.

5.5	+0.7	
12	+0.5	
18	+0.3	
23	+0.1	
28	-0.1	
33	-0.3	
38	-0.5	+1.5
43	-0.7	+1.3
47.5	-0.9	+1.1
52	-1.1	+0.9
56	-1.3	+0.7
60	-1.5	+0.5
64	-1.7	+0.3
68	-1.9	+0.1
73		-0.1

August 12-13 Launch No. 1 ← Not for this survey.

6	+0.7	
15	+0.5	
23	+0.3	
31	+0.1	
38.5	-0.1	+1.9
45	-0.3	+1.7
51	-0.5	+1.5
57	-0.7	+1.3
62.5		+1.1
68		+0.9
73		+0.7
78		+0.5
83		+0.3

TIDE NOTE
SHEET NO. H-7753
(Field No. AR-4149-W)

STATION LOCATION: Powruk Tide Gage, Point Lay Base Camp, at Latitude 69° 38.3'; Longitude 163° 08.1'.

PLANE OF REFERENCE: Mean Lower Low Water, which is 2.3 feet on the staff at the station, and 3.3 feet below bench Mark No. 2.

All soundings were reduced to mean lower low water by using the portable automatic tide gage records at the base camp. The gage was maintained from 15 July to 30 August 1950.

GEOGRAPHIC NAMES

FOR

HYDROGRAPHIC SURVEY NO. H-7753 (Field No. AR-2149-W)

ICY CAPE

CHUKCHI SEA

UTUKOK RIVER

KASEGALUK LAGOON

APPROVAL SHEET

H-7753 (1950 work)

It was not possible for the Chief of Party to make frequent inspections of all widely-separated units engaged in hydrographic surveys, therefore such inspections were assigned to the officer in charge of field work in each base camp.

The sheet and records have been examined and approved. The survey is considered adequate for this area.

R. A. Earle
Comdr., USC&G Survey
Chief of Party

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~ 31 January 1951

Division of Charts: R. H. Carstens

Plane of reference approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 7753 Add. Wk.

Locality Arctic Coast, Alaska

Chief of Party: R. A. Earle in 1950
Plane of reference is mean lower low water, reading
2.3 ft. on tide staff at Point Lay (Powruk)
3.3 ft. below B. M. 1 (1949)

Height of mean high water above plane of reference is 0.60 foot.

Condition of records satisfactory except as noted below:

E. C. McKay
Section
Chief, ~~Division~~ of Tides ~~and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 756675

GEOGRAPHIC NAMES

Survey No.

H-7753-Ad.Wk.1950

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
										1
										2
										3
										4
										5
										6
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										27
										M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7753.Ad.Wk.1950

Records accompanying survey:

Boat sheets 3....; sounding vols. ..4...; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 9 env.;

special reports, etc. .....

.....

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

Number of positions on sheet	2185	2185	
Number of positions checked	180	..9...	
Number of positions revised	2	..1...	
Number of soundings revised (refers to depth only)		.791..	1949 & 50 Totals. - faculty phase corr.
Number of soundings erroneously spaced	13	.....	
Number of signals erroneously plotted or transferred		—	
Topographic details Shoreline added J. T. Gallahan	Time	..15...	
Junctions	Time	.10. hrs	
Verification of soundings from graphic record	Time	.28. hrs	

Preliminary Verification - E. Shea - Total, 59 hrs & 80 hrs. 9/27/51

Verification by..R.T. McBride.....Total time .80hrs. Date 1-31-58

Reviewed by.....A.J. Hoffman..... Time 27 hrs. Date 3/7/52.

Addendum by....D.W. Jones, Sr. Time 41 HRS Date 7/7/64

M-2232-1

Preliminary Verification

H-7753

1. Verify H-day in Utukok Pass
2. E- and F-day (red) soundings are 1 – 2 ft deeper — Review par. 7c
   Investigate.
3. Verify 22' in lat 70° 12.1, long 162° 20.8

J J Jordan

8/21/51

Verified 30' sdg 70° ~~12~~ 19.1' lat - long 162° 00.5'

Line 80a to 83a - 70° ~~05~~ 04' lat - long 162° 36'

Line 9?e - 98e ~~to~~ when it passes H day works.

Lat. 70°05 Long. 162°33' 102e - 103e - 88½e & 89e.

E. Thomas.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7753 FIELD NO. AR-4149-W

Alaska-Arctic Coast, Icy Cape to Utukok Pass

Project No. CS-320

Surveyed in August - September 1949, August 1950 Scale 1:40,000

Soundings: Control:

808 Fathometer Sextant fixes on shore signals

Chief of Party - R. A. Earle
Surveyed by - D. M. Whipp and H. G. Conerly
Protracted by - C.A.J. Pauw and B. Smith
Soundings plotted by - C.A.J. Pauw and B. Smith
Preliminary Verification by - E. E. Thomas
Verified and inked by - E.E.Thomas, J. Gallahan & R.T. McBride
Reviewed by - A. J. Hoffman, 6 March 1952
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline will be applied when the verification of the survey is completed.

The source of the signals 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 are adequately delineated.

The bottom is relatively smooth except for irregularities probably caused by the gouging of grounded ice inshore from 36-ft. depths.

4. Junctions with Contemporary Surveys

The present survey junctions adequately with H-7665 (1948-50) on the north, with H-7751 (1949) on the northeast and with H-7754 (1949-50) on the south.

5. Comparison with Prior Surveys

There are no prior surveys in the area by this Bureau.

6. Comparison with Arctic Coast Chart No. 13(Print date 5/14/51)
Arctic Coast Chart No. 14(Print date 4/30/51)

a. Hydrography

Charted hydrography originates with the present survey prior to verification. Minor corrections to soundings amounting to 1 ft. and 2 ft. have been made on the smooth sheet during preliminary verification and review.

b. Aids to Navigation

There are no floating aids to navigation in the area.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was very well done.

c. The preliminary verification of this survey was confined to critical soundings, discrepancies at crossings and junctions and unnatural depth curves and bottom configuration.

A number of discrepancies of 1-2 ft. occurred on crossings of E- and F-day lines with lines of other days. Investigation of the phase changes on fathometer No. 106-S disclosed an erratic phasing error which had not been adequately corrected in the field. During preliminary verification corrections have been applied which have eliminated the discrepancies.

Completion of the verification, inking and application of shoreline is deferred until some future date, at which time the inspection of the junctions, curves and shoreline will be completed by the reviewer.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

This is a very good basic survey offshore to depths of about 50 ft. and no additional field work is recommended.

Examined and approved:

H. R. Edmonston
Chief, Nautical Chart Branch

H. Arnold Karo
Chief, Division of Charts

L. S. Hubbard
Chief, Section of Hydrography.

W. M. Scaife
Chief, Division of Coastal Surveys

Addendum to Review
H-7753 (1949-50)

Verified and inking completed by----------E. E. Thomas
J. Gallahan
R. T. McBride
Review addendum by----------D. W. Jones, Sr.
Inspected by----------I. M. Zeskind 7/21/64

The verification of H-7753 has been completed. Soundings and depth curves have been completely inked. The 24-ft and 36-ft curves were drawn to more completely define the bottom configuration.

Shoreline

The shoreline originates with reviewed photogrammetric surveys T-9362 (1949), T-9365 (1948-49), T-9366 (1948-49) and T-9368 (1949).

Junctions with Contemporary Surveys

Adequate junctions were completed with the adjoining surveys mentioned in the review.

Comparison with Chart 9457 (Latest print date 4-16-56)
Chart 9458 (Latest print date 4-16-56)
Chart 9459 (Latest print date 4-16-56)

The charted hydrography originates with the present survey after preliminary verification and review. A comparison between the charted and present survey depths reveals only a few minor differences of 1-2 ft.

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

Condition of Survey

(a) Completion of the verification reveals that the smooth plotting was well done.

(b) The descriptive report is complete and comprehensive.

Approved:

Lorne G. Taylor
Chief, Nautical Chart Division

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7753

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3/50	9402	CR W-by Stgman	Before ~~After~~ Verification and Review thru Arctic #13
7 Dec 54	9459	Lawrence H Bell	~~Before~~ After Verification and Review Completely Applied
	9457 ~~9458~~	~~Goodrich~~	Before After Verification and Review
			Before After Verification and Review
		See other Pencil Sheet.	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.

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7753 Ad.Wk. 1950

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10 Apr 54	Arctic #14	Lauret H Bell	Before ~~After~~ Verification and Review applied soundings & curves
4/17/51	Arctic #13	J A McGann	Before ~~After~~ Verification and Review
23 Apr 51	9402	Lauret H Bell	Before ~~After~~ Verification and Review Thru Arctic Cht #14
7 Dec 54	7459	Lauret H Bell	~~Before~~ After (Preliminary) Verification and Review Completely Applied
5/25/55	9458	Goodrich	~~Before~~ After (Preliminary) Verification and Review
	9457		
2/1/56	9402	J A McGann	~~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.

(Before Verification) Applied to Arctic Coast Chart #13 TMR 3/1950