

8147

Diag. Cht. No. 8863-3

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. EX-1154 Office No. H-8147

LOCALITY

State Alaska - Alcution Islands

General locality Andreanof Islands - Adak Island

Locality Bay of Islands

194 54

CHIEF OF PARTY

S. B. Grenell

LIBRARY & ARCHIVES

DATE April 22, 1955

B-1870-1 (1)

8147

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-8147

Field No. EX-1154

State Alaska - Aleutian Islands

General locality Aleutian Islands, Andreanof Islands - Adak Island

Locality Bay of Islands, Adak Islands

Scale 1:10,000 Date of survey 12 July to 24 August 1954

Instructions dated 19 March 1952, 20 Feb. 1953, 23 Dec. 1953, 4 May 1954

Vessel USC&GSS EXPLORER, Launch #1

Chief of party S. B. GREENELL

Surveyed by Horace G. Conerly and Jack D. Walker

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

Fathograms scaled by Fathogram reader, H. G. Conerly and Jack D. Walker

Fathograms checked by H. G. Conerly and Jack D. Walker

Protracted by Jack D. Walker

Soundings penciled by Francis X. Popper

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

REMARKS: _____

Handwritten initials

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY NO. H-8147 (EX-1154)
BAY OF ISLANDS, ADAK ISLAND, ALASKA
SCALE 1:10,000
USC&GSS EXPLORER S. B. GREENELL, COMDG
SURVEYED BY H. G. CONERLY AND J. D. WALKER

A. PROJECT:

This survey was accomplished under instructions for Project GS-218 dated 19 March 1952, supplemental instructions dated 20 February 1953, supplemental instructions dated 23 December 1953 and letter dated 4 May 1954.

B. SURVEY LIMITS AND DATES:

This survey includes all of the Bay of Islands except one area in Expedition Harbor that was wire dragged by the U.S. Navy. The northern limits of the survey are roughly determined by a line between Careful Point and a point about one mile north of North Island.

Junction was made on the north with H-8145 (EX-2554), a 1:20,000 scale survey of the north end of Adak Strait. *(Not in Wash. Office 1-24-56 luj)*

Field work commenced on 12 July and was completed on 24 August 1954.

C. VESSEL AND EQUIPMENT:

All hydrography was done in Launch #1, a 30-foot, diesel powered motor-sailer, operating from a camp in Unalga Bight. Soundings were taken with an 808A depth recorder (No. 49), supplemented by handlead soundings on shoals and in kelp.

D. TIDE AND CURRENT STATIONS:

The records from the portable tide gage maintained at Unalga Bight were used for the reduction of all soundings on this sheet.

No current stations were observed within the limits of this sheet.

E. SMOOTH SHEET:

The smooth sheet was constructed and plotted by personnel of the ship EXPLORER.

F. CONTROL STATIONS:

Triangulation was established by G. C. Jones in 1925; by the U.S. Navy in 1933, by the U.S. Engineers in 1943 and by S. B. Grenell in 1954.

Signals Gull and Round were located by sextant cuts. All other signals were located either by theodolite cuts or standard graphic control methods or a combination of theodolite cuts and graphic control methods per letter of instructions dated 4 May 1954. *EX-A-54 and EX-B-54 indicated for destruction*

G. SHORELINE AND TOPOGRAPHY:

The shoreline and topography for the Bay of Islands are from manuscripts T-11564 and T-11565 as compiled by photogrammetric methods from 1954 field inspection data. The shoreline on the west side and north end of North Island is approximate only. Final field inspection and compilation will be made during the 1955 field season. **not reviewed at this date, 10/10/55*

All offshore signals are on rocks.

The low water line was not defined by soundings. In some areas it coincides with the ledge or reef line and is defined on manuscripts. The fringe of kelp along rocky shoreline, the breakers on beaches, and the steep foreshore of ledges prevented delineation of the low-water line.

Kelp and fowl areas are defined by the hydrography, and in many instances, were sketched on the boat sheet by the hydrographer as sounding progressed.

Following are comments which should resolve most of the discrepancies between the hydrographic and topographic surveys:

Two rocks awash located 175 meters east of signal Tie, from the compilation, are 2 of 3 rocks located by hydrographic position 34c. The two inked rocks on the smooth sheet are from the photo compilation and the penciled rock is from the hydrography. *Lat. 51°42.29' Long. 176°42.53'*

The rock indicated as a rock which does not cover on the compilation and located 200 meters southwest of signal Fee is the rock awash located by position 47h. *Lat. 51°48.85', Long. 176°48.72'*

The two rocks shown as rocks which do not cover on the compilation and located 350 meters east southeast of signal Fee are rocks awash located by position 55v. *Lat. 51°48.97', Long. 176°48.30'*

The photo compilation shows two rocks which do not cover in latitude 51°48'40" and longitude 176°49'30". This is ^{one} rock and was located by graphic control survey sheet EX-B-54.

The photo compilation shows a rock which does not cover located 100 meters west of signal H²m. This rock does not exist. *PLA-4 Review*

Lat. 51° 49.05', Long. 176° 49.45'

The photo compilation shows a rock which does not cover located 50 meters north of signal S²x. This rock is a rock awash located by graphic control survey sheet EX-B-54. *PLA-2 Review*

Lat. 51° 48.22', Long. 176° 47.78'

Two rocks which do not cover are located 200 meters northwest of signal Lye. The photo compilation location disagrees with the plane table location. The plane table location has been used. *also see PLA-2 Review*

Lat. 51° 50.58', Long. 176° 47.89'

The hydrographic line between positions 18 and 19s (100 meters northwest of signal Ago) runs over a rock awash as located by the photo compilation. *Ago (Lat 51° 49.30', Long. 176° 47.52') Discrepancy resolved by revising position of sdg. line.*

~~The island portion of the foul area located 200 meters east of signal Hon was located by graphic control sheet EX-B-54. A *check and bear sheet of portion of the foul area was located by hydrography. H-8147.*~~

Lat 51° 47.85', Long. 176° 50.20'

The hydrographic line between positions 220 and 221n runs over a small island; the corvair probably steered around the island and back on to his range, so the line has been moved enough to clear the island; the shoreline of island may not extend quite as far east as is shown on the photo manuscripts. *Lat. 51° 50.57', Long. 176° 47.68'*

H. SOUNDINGS:

Soundings were taken with an 808A type depth recorder (No. 49) operated on the fathom scale. Handlead soundings were taken in critical areas, on shoals, and in kelp.

See "Special Report on Fathometer Corrections - Ship EXPLORER - Season 1954." *(filed in Library)*

I. CONTROL OF HYDROGRAPHY:

The hydrography is controlled by three-point fixes on signals ashore. No unusual or substandard methods were used for this purpose.

J. ADEQUACY OF SURVEY:

The survey is considered complete and adequate for charting, and it complies with the Project Instructions and the Hydrographic Manual and should supersede all previous surveys.

There is one holiday in Expedition Harbor. The holiday is about 300 meters by approximately 4500 meters. With the exception of three cross lines, no sounding lines were run in the above area. *PL-5 and 9 Review*

See Appendix 1 for discussion of junctions with adjoining surveys and comments with reference to depth curves.

K. CROSSLINES:

Crosslines represent about 3% of the regular system of sounding lines. Crossings were satisfactory.

L. COMPARISON WITH PRIOR SURVEYS:

The surveys ^{H-6884 & H-6886} made by the U.S. Navy in 1933 at first appeared to be adequate. The Navy soundings were apparently all vertical casts and check very well with the 1954 depths; however, so many shoals were missed by *TPS of* this method of sounding that it was determined to be the best policy to *Review* make a complete new survey of the entire area. This decision was very necessary because of the very broken bottom in critical depths, and it was found that many dangers had been missed in the original survey. Many depths considerable less than the wire-drag depths indicated were found in the dragged area.

M. COMPARISON WITH CHART:

Same as section L.

N. DANGERS AND SHOALS:

The entire shoreline is fringed with offlying rocks and kelp. ✓

SHOALS:

- (1). 3.8 fathom shoal in latitude 51°49'48", longitude 176°49'35", position 3w.
- (2). 3.8 fathom shoal in latitude 51°49'44", longitude 176°49'32", position 5w.
- (3). 3.1 fathom shoal in latitude 51°49'10", longitude 176°49'25", position 1w.
- (4). 4.0 fathom shoal in latitude 51°49'30", longitude 176°48'56", position 4w.
- (5). 2.2 fathom shoal in latitude 51°47'45", longitude 176°48'12", position 1x.
- (6). 2.2 fathom shoal in latitude 51°49'41", longitude 176°48'18", position 64t.
- (7). 4.1 fathom shoal in latitude 51°49'34", longitude 176°47'27", position 9u.

- (8). 2.3 fathom shoal in latitude 51°50'48", longitude 176°47'⁴⁸27", position 257r plus 22 seconds. ✓
- (9). 4.8 fathom shoal in latitude 51°48'05", longitude 176°45'41", position 44q plus 45 seconds. ✓
- (10). 2.8 fathom shoal in latitude 51°49'14", longitude 176°49'22", position 2w. ✓

Q. COAST PILOT INFORMATION:

See "Coast Pilot Notes - U.S. Coast Pilot - Alaska, Part II, Yakutat Bay to Arctic Ocean - Ship EXPLORER - 1954" for Coast Pilot Information and recommended anchorages. ✓

P. AIDS TO NAVIGATION:

There are no aids to navigation within the area of this survey, and no bridges, overhead or submerged cables, or ferry routes exist. ✓

Q. LANDMARKS FOR CHARTS:

The only landmarks are natural objects such as rocks and peaks or hills. ✓

R. GEOGRAPHIC NAMES:

Newly recommended geographic names are Old Island, Duck Island and Recreation River. See "SPECIAL REPORT ON GEOGRAPHIC NAMES, BOBROF; KANAGA AND ADAK ISLANDS, ALEUTIAN ISLANDS, ALASKA, USC&GSS EXPLORER - S. B. Grenell, Comdg., Season 1954". ✓

Z. TABULATION OF APPLICABLE DATA:

Data forwarded with this report:

Smooth Sheet H-8147
Boat Sheet H-8147 (EX-1154)
9 Sounding Volumes 1 thru 9
1 envelopes of fathograms
2 Manuscripts, T-11564 and T-11565

Data forwarded separately:

Field Inspection Report - For Maps T-11322 (part), T-11324, T-11325, T-11329 (part), T-11330 (part), T-11334 (part), Adak Island, Alaska, forwarded to Washington Office, 22 November 1954. ✓

Graphic Control Sheets ^{EX-B-54}EX-A-54, and EX-C-54 and reports on same were forwarded to the Washington Office, 18 November 1954. ✓
Marked for destruction (EX-A-54 and EX-B-54).

Tide Data for Unalga Bight Tide Gage forwarded 8 September 1954.

Special Report on Fathometer Corrections, Ship EXPLORER - 1954, forwarded 25 February 1955.

Special Report on Geographic Names, Bobrof, Kanaga and Adak Islands - 1954, forwarded 18 November 1954.

Coast Pilot Notes - Ship EXPLORER - 1954, forwarded 20 December 1954.

Season's Report - Ship EXPLORER, Project CS-218 - 1954, forwarded 30 November 1954.

Respectfully submitted,

Francis X. Popper
Francis X. Popper
Lcdr., USC&GSS

STATISTICS
 HYDROGRAPHIC SURVEY H-8147
 FIELD NO EX-1154
 SHIP EXPLORER
 PROJECT CS-218

<u>VOL. NO.</u>	<u>DAY LTR</u>	<u>DATE</u>	<u>H.L. OR WIRE</u>	<u>NO. POS.</u>	<u>STAT MILES</u> <u>SDG LINES</u>
1	a	7-12-54	-	136	13
1	b	7-13-54	-	119	7.5
1	c	7-14-54	-	218	15.4
2	d	7-20-54	-	204	15.9
2	e	7-23-54	-	268	20.9
3	f	7-24-54	-	73	7.2
3	g	7-27-54	-	217	22.1
3	h	7-28-54	-	250	23.2
4	i	7-29-54	-	51	4.1
4	k	8-3-54	-	196	16.1
4	l	8-4-54	-	125	8.2
4 & 5	m	8-5-54	-	283	29.6
5	n	8-7-54	-	263	26.4
5 & 6	p	8-9-54	-	277	30.8
6	q	8-10-54	-	274	25.8
6 & 7	r	8-11-54	-	265	27.2
7	s	8-12-54	-	320	41.4
8	t	8-18-54	-	64	5.6
8	u	8-18-54	-	68	3.8
8	v	8-19-54	-	236	30.5
8 & 9	w	8-20-54	-	155	15.2
9	x	8-23-54	-	232	20.7
9	y	8-24-54	-	69	6.3
				<u>4363</u>	<u>405.1</u>

113 Square Statute Mile Soundings

✓ note

TIDAL NOTE

To Accompany Hydrographic Sheet EX-1154, Reg. No. H-8147

For tide reducers for the whole sheet, a tide gage was maintained at Unalga Bight.

Latitude: 51-46.85

Longitude: 176-48.35

MLLW (furnished by Washington Office) is 2.4 ft. on *the staff*

Datum used is MLLW.

APPROVAL SHEET

H-8147

EX-1154

This survey was accomplished by a detached party operating from a camp in Unalga Bight, Expedition Harbor. The boat sheet and sounding records were examined twice each month when the camp party was serviced. The survey is complete with the exception of a holiday about 300 meters by 4500 meters in the center of Expedition Harbor. Soundings in the area as shown by the previously executed Navy survey are adequate to fill this gap. No additional hydrography is recommended. *see P 5 Review*

H-8147 is a complete basic survey and should supersede all previous surveys of the area.

The smooth sheet, sounding records, and descriptive report have been examined and are approved.



S. B. GRENELL, Capt., USC&GSS
Comdg., Ship EXPLORER

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.

Field No. EX-A-54
EX-B-54

REGISTER NO.

State Alaska

General Locality Aleutian Islands - Andreanof Islands

Locality Adak Island - Bay of islands

Scale 1:10,000 Date of survey July - August, 1954

Vessel Explorer

Chief of party S.E.Grenell

Surveyed by J.D.Walker

Inked by J.D.Walker

Heights in feet above mean low water to ground to tops of trees

Contour, Approximate contour, Form line interval 100 feet

Instructions dated 3/19/52, 12/23/53, 5/4/54, 1954

Remarks: Graphic Control Only

GPO 266853

Magnetic Variation Topo Sta. JET, at 1100 8 July, 1954, is 9°16'E.

Graphic Control surveys EX-A-54 and EX-B-54 are marked for destruction as all pertinent information contained thereon has been applied to H-8147 (1954).

Descriptive Report
to accompany
Graphic Control Topographic Sheets
Field Nos. EX-A-54 and EX-B-54
Bay of Islands, Adak Island
Aleutian Islands, Alaska
Season 1954
Ship EXPLORER - S. B. Grenell, Comdg.

Instructions:

Original INSTRUCTIONS for Project CS-218 dated 19 March 1952, with supplements dated 23 December 1953 and 4 May 1954, govern.

Purpose:

The survey was conducted to locate signals for controlling hydrography and a later photogrammetric survey.

Scale:

The scale of both sheets is 1:10,000 as is the hydrography of the Bay of Islands. Two standard topographic sheets were required to cover the survey area at this scale.

Control:

Second order triangulation established by the U. S. Navy in 1933, second order triangulation established in 1925 and observed in 1954, and hydrographic signals located by theodolite cuts in 1954 were used to control the graphic control work on both sheets of the survey. All stations and signals are on the 1927 North American datum. The triangulation of 1933 is adjusted while the positions of stations OLD, 1925-1954 and ASTRO, 1925-1954 are unadjusted.

Limits:

The limits of the survey include the entire Bay of Islands area, the northwest boundary being a line projected across the mouth of the bay from Careful Point to Cliff Point.

Sheet EX-A-54 covers the southeast portion of the bay, eastward from Long. 176-49-00 and southward from Lat. 51-50-00 to and including the southern and eastern shore lines of the Bay. *applied to H-8147 and then destroyed*

Sheet EX-B-54 covers the northwest portion of the bay, southward from the mouth of the bay to and including the south shoreline, eastward from Careful Point to Cliff Point.

Sufficient overlap of the two sheets was allowed to insure adequate location of the signals in the overlap area. Planetable cuts were transferred from sheet B to sheet A for the location of 0 Fat.

Methods:

Standard topographic methods were used throughout. Plane table setups were made over triangulation stations and hydrographic signals located by theodolite as starting points; thereafter setups were located by projecting azimuths and resecting on two or more well located signals. Wherever possible triangulation was used for locating the setup. There were no traverses.

Signals for hydrography were located by theodolite cuts alone, by a combination of theodolite and planetable cuts, by planetable cuts exclusively or by one or two planetable cuts plus a stadia distance. Of the signals located by planetable cuts alone, all except signals Roz and Sir were located by an intersection of three or more cuts from points so selected as to give a strong intersection. Signals Roz and Sir were located by the intersection of two planetable cuts, in both cases the cuts make strong intersections and are projected from well located setups.

The various signals are listed in the statistics of this report according to their method of location.

Adequacy:

The graphic control work is adequate for controlling the hydrography subsequently accomplished at the same 1:10,000 scale. Topography of the area will result from a 1954 photogrammetric survey.

Previous Surveys:

The penciled shoreline on both sheets is from a preliminary compilation of 9-lens aerial photographs at a scale of 1:20,000, enlarged to scale 1:10,000. Several discrepancies were noted, but no attempt was made to actually check same.

The entire area was re-flown in September 1954 and final topography will result from compilation of these photographs. (T-11324 and T-11325 of 1954)

The entire area was surveyed by the U. S. Navy in 1933, but no attempt was made to check this 1933 work.

Landmarks:

There are no prominent features in the area considered suitable for charting as landmarks.

Aids to Navigation:

There are no existing aids to navigation in the area.

Geographic Names

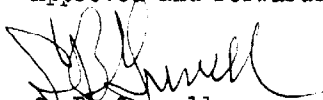
The names of the various waterways and islands as they appear on Chart 9120 are well established. There are no other known named features in the area. There are no inhabitants, so local usage does not apply. See special Report on Geographic Names, Season 1954, for recommended names for unnamed features.

Respectfully submitted



Jack D. Walker
Ensign, C&GS

Approved and forwarded



S. B. Grenell
Chief of Party

Statistics

A total of 59 hydro signals on Sheet A

A total of 56 hydro signals on Sheet B

The following signals were located exclusively by plane table using the method described.

A strong intersection of three or more planetable cuts:

Sheet A

Adz	Cow	Gab	Ked	Not	Van
Bye	Dix	Hap	Kim	Ova	Woe
Cot	Dug	Ire	Led	Oat	Yew
Chan	Eel	Jon	Met	Paw	
Cry	Fat	Joy	Nig	Rio	

Sheet B

Ana	Dif	Inn	Mut	Tun
Bus	Fee	Jam	Plum	
Cor	Gut	Leo	Per	
Car	Geo	Lye	Rip	
Due	Ike	Mud	Two	

Setting up over a signal having one or two previously projected cuts and resecting on triangulation or well located hydrographic signals.

Sheet A

Fix	Sox	Bur
Ina	Tea	

Sheet B

Era	Ivy	Pro
Wxon	Obi	Sue

The intersection of two plane table cuts and a stadia distance.

Sheet A

Alp	Dab	Tic	Via
Awl	Ebb	Tri	Zip
Box	Elm	Tie	
Cod	Foul	Uno	

Sheet B

Hah	Oil	Who
Jig	Sis	

A projected azimuth and a stadia distance

Sheet A

Ado	Bar	Pip	BM 1
Ban	Fid	Web	BM 3
Wash			

Sheet B

Lux	Nut	Rock
-----	-----	------

A strong intersection of two plane table cuts.

Sheet A
Roz Sir

The following signals were located by theodolite, plotted on the sheet and checked by planetable cuts.

Sheet A
Mil Nip

Sheet B
Bag Hem Kay Mil Wet
Col Jet Log Nip

The following signals were located by a combination of plane table cuts and computed theodolite cuts.

Sheet B
Ago Cap Fob Poi Tar
Amy Dar Gal Rue
Bib Emo Ohm Sac

The following signals were marked and described as recoverable topographic stations.

Sheet A
Ina

Sheet B
Jet Kay

GEOGRAPHIC NAMES

Survey No. H-8147

P. 1 of 2

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
	On Chart No.	On previous survey No.	On U. S. Quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List				
<u>Argonne Channel</u>							BGN					
<u>Argonne Island</u>							BGN					1
<u>Beverly Cove</u>							BGN					2
<u>Beverly Point</u>							BGN					3
<u>Black Island</u>												4
<u>Careful Point</u>							BGN					5
<u>Channel Islands</u>							BGN					6
<u>Cliff Point</u>							BGN					7
<u>Dora Island</u>							BGN					8
<u>Duck Island</u>												9
<u>Expedition Harbor</u>							BGN					10
<u>Fisherman Cove</u>							BGN					11
<u>Gannet Cove</u>							BGN					12
<u>Green Island</u>							BGN					13
<u>Hell Gate</u>							BGN					14
<u>Ina Island</u>							BGN					15
<u>Kelp Point</u>							BGN					16
<u>Large Rock</u>												17
<u>North Island</u>							BGN					18
<u>Plum Island Rocks</u>							BGN					19
<u>Recreation River</u>												20
<u>Ringgold Island</u>							BGN					21
<u>Ringgold Sound</u>							BGN					22
<u>Sachem Head</u>							BGN					23
<u>Sea Parrot Island</u>							BGN					24
<u>South Island</u>							BGN					25
<u>Staten Island</u>							BGN					26
<u>Trapper's Cove</u>							BGN					27

GEOGRAPHIC NAMES

Survey No.
 H-8147
 p. 2 of 2
 Name on Survey

	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
A	B	C	D	E	F	G	H	K	
Unalga Bight						BGN			1
Vincennes Point						BGN			2
White Falls						BGN			3
Old Island									4
North Rocks						BGN			5
Fox Point						BGN			6
Range Point						BGN			7
Eaglet Rocks						BGN			8
Argonne Channel						BGN			9
									10
Cormorant I.									11
									12
									13
									14
									15
									16
									17
									18
									19
									20
									21
									22
									23
									24
									25
									26
									27
									M 234

Names approved
 4-26-55
 A. J. W.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8147.....

Records accompanying survey:

Boat sheets .1...; sounding vols. .2...; wire drag vols.;
 bomb vols.; graphic recorder rolls 6 ~~env.~~;
 special reports, etc. 1. ~~Smooth Sheet~~.....

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

Number of positions on sheet	4363.
Number of positions checked	.150.
Number of positions revised	..7..
Number of soundings revised (refers to depth only)	*205.
Number of soundings erroneously spaced	..37..
Number of signals erroneously plotted or transferred
Topographic details	Time 6 hrs
Junctions	Time
Verification of soundings from graphic record	Time 20 hrs

Verification by... A. J. Hoffman. Total time 35 hrs Date 11/10/55

Reviewed by... *J. Zeschke* Time 100 Date 1/9/56

* Total includes sndgs. not pencilled by the smooth plotter. See paragraph 34 of the Verifier's Report for a listing of these omissions.

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

27 April 1955

Division of Charts: R. H. Carstens

Plane of reference approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 8147

Locality Aleutian Islands, Alaska

Chief of Party: H. G. Conerly in 1954
Plane of reference is mean lower low water, reading
2.4 ft. on tide staff at Unalga Bight
6.4 ft. below B. M. 1 (1954)

Height of mean high water above plane of reference is 3.7 feet.

Condition of records satisfactory except as noted below:

E. C. McKay

Chief, Division of Tides and Currents.

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8147

FIELD NO. EX-1154

Alaska, Aleutian Islands, Andreanof Islands - Adak Island,
Bay of Islands

Project No. CS-218

Surveyed - July-August, 1954

Scale 1:10,000

Soundings:

Control:

808 Fathometer
Handlead

Sextant fixes on
shore signals

Chief of Party - S. B. Grenell
Surveyed by - H. G. Conerly and J. D. Walker
Protracted by - J. D. Walker
Soundings plotted by - F. X. Popper
Verified and inked by - A. J. Hoffman
Reviewed by - I. M. Zeskind 2-16-56
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed topographic surveys T-11564 and T-11565 of 1954.

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 in depths less than 5 fms., where the foul area and inshore dangers generally prevented development to the low-water line.

The survey covers an area which is interspersed with numerous islands. The bottom is very irregular in depths less than 20-fms. and fairly irregular in greater depths. Submarine features such as reefs, ledges, pinnacles, shoals and deeps contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

The project survey on the northwest has not yet been received in the Washington Office.

5. Comparison with Prior Surveys

H-6884 (1933), USN, 1:6,000

H-6886 (1933), USN, 1:6,000

A comparison between the U. S. Navy reconnaissance surveys and the present survey shows a number of discrepancies in depths, rock delineation and shoreline. The following is a list of the major discrepancies in critical depths between the Navy and present surveys:

Navy Survey Sheet No.	Depth-fms.	Location		Present Survey Depths-fms.
		Latitude	Longitude	
H-6886	5-3/4	51°47.87'	176°43.84'	6.6 - 8.5
H-6886	8	51°47.91'	176°44.35'	13 - 15
H-6886	10	51°47.67'	176°46.63'	13
H-6884	8	51°49.42'	176°50.13'	15 - 19
H-6884	11	51°48.29'	176°50.21'	19 - 20
H-6884	5 1/8	51°48.23'	176°49.99'	16 - 19
H-6884	8	51°48.28'	176°50.08'	14 - 18
H-6884	2-3/4	51°47.62'	176°49.02'	5.5 - 6.3
H-6884	1/2	51°49.78'	176°48.02'	32

In the areas where the above listed discrepancies occur, the Navy survey depths are discredited by the present survey depths. These discrepancies in depths are attributed to weak control, improper spacing of soundings and errors in depths on the Navy surveys.

With the addition of several soundings in unsounded areas inshore, the present survey is adequate to supersede the Navy surveys within the common area. In the unsurveyed area on the present survey in Expedition Harbor depths on Navy survey H-6886 (1933) should be retained for charting.

6. Comparison with Chart 9120 (latest print date 4-18-55)A. Hydrography

The charted hydrography originates with the previously discussed U. S. Navy surveys, supplemented by hydrographic information from the boat sheet (Bp. 51930) of the present survey. The following discrepancies between the chart information and the present survey are noted:

- (1) The pier charted in the vicinity of lat. 51°46.86', long. 176°48.37' from A. M. S. topographic quadrangle,

Adak 1943, is not shown on contemporary air-photographic survey T-11564 (1954), nor does it appear on the photographs from which T-11564 was compiled. However, 4 piles were located on contemporary graphic control survey EX-A-54 in the prior position of the pier. The pier is considered to be non-existent. ✓

(2) The bare rock charted in lat. $51^{\circ}50.67'$, long. $176^{\circ}47.77'$, from the boat sheet (Bp. 51930), should be deleted from the chart. A zero depth on the boat sheet, which was revised to 2.2 fms. during verification and review, was erroneously charted as a bare rock. ✓

(3) The bare rock charted in lat. $51^{\circ}48.55'$, long. $176^{\circ}48.85'$, originates with the boat sheet (Bp. 51930) of the present survey. The rock is not shown on contemporary air-photographic survey T-11564 (1954), nor could it be found on the photographs from which T-11564 was compiled. The rock is considered non-existent and should be deleted from the chart. ✓

(4) The bare rock charted in lat. $51^{\circ}49.05'$, long. $176^{\circ}49.45'$, from advance print of unreviewed air-photographic survey T-11564 (1954) falls in present depths of 13 fms. An inspection of the photographs from which T-11564 was compiled shows that a light spot on the photographs, presumably due to turbulence, was erroneously compiled as a bare rock. The field party searched for the rock at a low stage of the tide and failed to find it. The rock is believed to be non-existent and should be deleted from the chart. ✓

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

B. Wire-drag Surveys

H-6885 WD (1933), 1:6,000
H-6887 WD (1933), 1:6,000

Although the wire-drag information on surveys H-6885 WD and H-6887 WD is considered unreliable, present survey depths are in harmony with the effective wire-drag depths, except as follows:

WD Survey	Eff. WD depth feet	Present Survey		
		Latitude	Location Longitude	Least depth fms.
H-6885	34	51°49.28'	176°49.60'	3.8
H-6885	34 ? (eff. depth not clear)	51°49.55'	176°47.50'	4.1 4.6 & 4.8
H-6885	51	51°48.52'	176°50.58'	7.4

C. Aids to Navigation

There are no aids to navigation within the limits of the present survey.

7. Condition of Survey

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

(b) The smooth plotting was accurate, except for several positions being numbered in error.

(c) Soundings were apparently inadvertently omitted from several sections of lines.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

The present survey is considered basic and no additional field work is recommended. As noted in paragraph (5) above, soundings on Navy survey H-6886 (1933) are adequate for charting purposes in the unsurveyed area in Expedition Harbor on the present survey.

Examined and Approved:



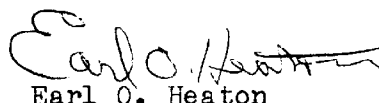
H. R. Edmonston
Chief, Nautical Chart Branch



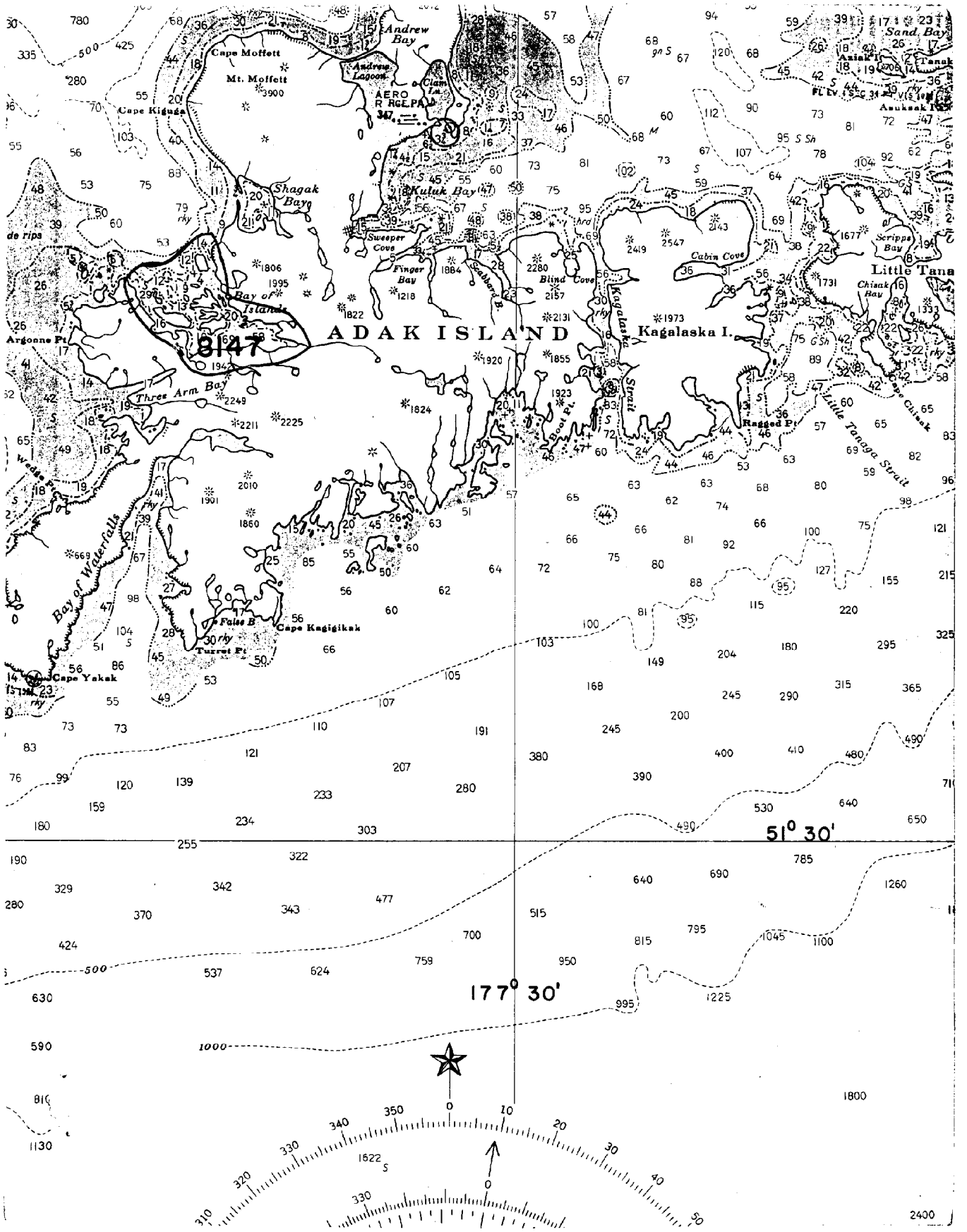
E. R. McCarthy
Chief, Chart Division



J. C. Bull
Chief, Hydrography Branch



Earl O. Heaton
Chief, Division of Coastal Surveys



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8147

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/2/56	8863	H. Stegman	Before After Verification and Review - <i>Partially -</i> <i>(wait for application thru large scale)</i>
1/11/57	9193	John P. Wei	Before After Verification and Review <i>Partially</i> <i>considered as fully applied until chart is reconstructed.</i>
6-20-58	8863	C.R. Wittmann	Before After Verification and Review <i>fully applied</i>
10/27/58	9120	Samuel Gunn	Before After Verification and Review <i>Partially applied (all items in review covered)</i>
5/8/59	9193	Chelwa	Before After Verification and Review <i>added 3 edges and completed a 20 fm curve</i>
11/29/59	9120	T.A.D. W.J. Rogus	<i>completely applied</i> Before After Verification and Review <i>in expedition</i> <i>North set to 171°47' and north to 51°49' as per instruction by chief</i>
2/21/60	9193	John P. Wei	Before After Verification and Review <i>Partially applied</i> <i>thru 16 x 9120 by 3, consider fully applied until reconstruct.</i>
10/25/66	9120	John P. Wei	Before After Verification and Review <i>Fully applied</i>
9/29/70	"	Beverly B. Dugan	" " " "
7-11-67	9121	Dennis Remesburg	Before After Verification and Review - <i>Added new soundings</i> <i>rock & curves</i>
			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.