

8237

Diag Cht. Nos. 8862 and 8863-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. EX-2355 Office No. H-8237

LOCALITY

State Alaska - Aleutian Islands

General locality Andreanof Islands

Locality West and North Coasts of Great

Sitkin Island

194 55

CHIEF OF PARTY

S. B. Grenell

LIBRARY & ARCHIVES

DATE January 30, 1956

8237

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. 2-8237

Field No. 21-2355

State Alaska-Alutian Islands.

General locality Andreaf ^{Islands} group, ~~Great Sitkin Island~~

Locality West and North coasts of Great Sitkin Island.

Scale 1:20,000 Date of survey 16 June to 10 Sept. 1955

Instructions dated 16 December 1954

Vessel Ship EXPLORER and launches Nos. 1, 2, and 3.

Chief of party S. B. Grenell

Surveyed by S. B. Grenell, F. I. Pepper, S. L. Hollis, G. B. Haraden.

Soundings taken by ~~acoustic~~ graphic recorder, hand lead, ~~etc.~~

Fathograms scaled by Fathometer readers

Fathograms checked by S. L. Hollis, G. B. Haraden, H. A. Garcia

Protracted by A. J. Hamlett

Soundings penciled by A. J. Hamlett

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

REMARKS:

JH

Descriptive Report

to accompany

Hydrographic Survey No. H-8237

Field No. EX-2355

North and West Coasts of Great Sitkin Island

Aleutian Islands, Alaska

Project - 1218 Season 1955

Scale 1:20,000

Surveyed by: S. B. Grenell, F. X. Popper, S. L. Hollis, and G. E. Haraden.

A. PROJECT.

This survey was accomplished under authority contained in the Revised Instructions for Project 1218 (CS-218) dated 16 December 1954, file 22/MEK, S-2-EX.

B. SURVEY LIMITS AND DATES.

The survey covers the inshore area from Cape Kiugilak northward along the coast of Great Sitkin Island to Sulphur Point on the northeast shore of the island. Hydrography in the vicinity of Cape Kiugilak was accomplished on 16 - 18 June 1955 while shoran stations Sand and Axle were in operation. The remaining visual fix hydrography was completed on 7 to 10 September.

The survey joins the offshore survey accomplished this season as plotted on survey No. H-8233 (Field No. EX-4155) scale 1:40,000. (1955)

A junction with previous surveys was made off Cape Kiugilak as follows:

H-6918, 1:20,000, 1943 on J.E
H-7605, 1:30,000, 1946 on J.W
H-8

A portion of a U. S. Navy survey of 1934 (H-6892) was resurveyed on both inshore and offshore surveys.

C. VESSELS AND EQUIPMENT.

The outer lines of this survey were run by the ship using EDO and 808 type graphic recorders as depths required. The submarine slopes along the north and northwest coasts are extremely steep and broken by canyons which terminate close inshore. The waters here are too deep for 808 recorders and it was necessary to use the ship's EDO fathometer to obtain soundings close under Swallow Head.

The inshore work was done by ship's launches No. 1, 2, and 3 using 808 graphic recorders. All soundings were scaled from continuous profiles recorded by the ship or launches.

D. TIDE AND CURRENT STATIONS.

A standard tide station was in operation at Sweeper Cove, Adak Island throughout this season. A portable automatic tide gage was operated in Sand Bay on the south side of Cape Kiugilak from 11 June to 29 June. The Sand Bay tide observations were used to reduce soundings obtained in June. The Sweeper Cove tides were used without correction for time or range for reduction of all other soundings. See Director's letter of 15 July 1955, file 36-20-982e.

No current station was occupied in the area under consideration. While running sounding lines off Swallow Head a northeasterly set was observed estimated at 1 to 2 knots with the greatest velocity close inshore. A northwest-^{south}east set of approximately 1 knot was observed off Teapot Rock. In both cases the strength of the current decreased with increasing distance from shore. At a distance of 2 miles from shore the current was slight.

E. SMOOTH SHEET.

The smooth sheet projection was constructed by ship's officers using a flat sheet 42 x 60 inches and subsequently cut to 36 x 54 inches. Shoran arcs were drawn immediately after the projection was made.

Shoreline and photo-hydro signals were transferred directly to the smooth sheet by burnishing blue line prints of photogrammetric compilations T-11537 and T-11538 furnished by the Washington Office. The transfer of shoreline and signals has been verified.

F. CONTROL STATIONS.

Shoran stations AXLE and SAND were located by triangulation methods in 1955. The computations for these two stations were submitted with the descriptive report for hydrographic survey No. H-8233. (1955)

Triangulation control was used as follows: Great Sitkin (USN) 1934,

AKUYAN, PINNACLE off SWALLOW, TEAPOT ROCK, and TEAPOT SPOUT, were located in 1953 and recovered in 1955.

G. SHORELINE AND TOPOGRAPHY.

Shoreline details were compiled by the Washington office from nine-lens photographs which were field inspected in 1953 with supplemental inspection by this party. See shoreline manuscripts T-11537 and T-11538. The low water line was not defined by the hydrography. In many places along the north shore the high and low water lines coincide. In other areas the foreshore is rocky and foul so that launches could not work close to the beach.

*See notes of look
up*

Hydrography was accomplished between Cape Kiugilak and Cape Akuyan prior to the receipt of the shoreline manuscript. Hydrographic and photogrammetric location of offshore rocks are in good agreement with the exception of positions 81, 82, and 83a(green). See notes on page 18 of Vol. No. 4. These discrepancies are probably due to inaccuracy of shoran corrections. However, the notes on positions 124, 142, and 143 of the same day show good agreement between the hydrography and the compilation. No consistent change in the shoran corrections appear logical. The hydrography is consistent in itself and any attempt to make a general shift of it is unwarranted.

*air-photographic
locations accepted.*

H. SOUNDINGS.

Soundings were scaled from continuous profiles recorded on EDO or 808 fathometers. The soundings were corrected for draft, phase, variation from initial setting, and tide where applicable. See special report on fathometer corrections for the 1955 field season.

Deep canyons on both sides of Swallow Head presented problems which were only partially solved. The ship sounding lines were run as close inshore as possible with due regard to the safety of the ship. The launch fathometers failed to record adequate profiles over the steep slopes. This was partly due to rough weather and partly due to the inadequacy of the 808 fathometers in use.

I. CONTROL OF HYDROGRAPHY.

The hydrography between Cape Kiugilak and Cape Akuyan was controlled by shoran distances from stations SAND and AXLE. The shoran distances are corrected by applying differences obtained between simultaneous shoran ^{and} visual fixes.

The remaining hydrography is controlled by sextant fixes on photo-hydro or triangulation signals ashore.

J. ADEQUACY OF SURVEY.

The survey is adequate for charting purposes and to supersede prior surveys of the area. There are two 10 fathom soundings off Saddle Point which were not developed because of bad weather and lack of time. This bank is not of sufficient importance to warrant further investigation.

The junctions with surveys H-6918⁽¹⁹⁴³⁾ and H-7605⁽¹⁹⁴⁶⁾ are good. The junction with survey H-8233⁽¹⁹⁵⁵⁾, 1:40,000 scale offshore survey is excellent in most of the overlap. There are some discrepancies of a few fathoms along the northwest shore of the island where deep canyons with very steep slopes permit no displacement of soundings. Under the circumstances the discrepancies are to be expected and are of no consequence.

} P4 Review
} P5 Review

While no holidays exist some additional hydrography is desirable on the bank about one mile northeast of Swallow Head. The depth curves along the shelf are so irregular that much time could be spent developing them, however the area does not warrant such expenditure.

} P9 Review

K. CROSSLINES.

The crosslines represent approximately 7.5% of the sounding lines run. The crossings are excellent except for a few places on steep slopes where one line or the other is very slightly displaced. Major discrepancies have been reconciled.

L. COMPARISON WITH PRIOR SURVEYS.

With the exception of a small area in the vicinity of Cape Kiugilik the only previous surveys in this area were made by the Navy in 1934 as shown on hydrographic sheets No. H-6892' a scale of 1:30,000; and H-6898' at a scale of 1:60,000. The present work is a complete new basic survey and should supersede the 1934 work which was less accurately controlled. See the following paragraph (Comparison with charts) for further details.

} P5 Review

M. COMPARISON WITH CHARTS.

The area covered by this survey is charted on Charts Nos. 8863, 9193, and part on 9139. The changes required on Chart No. 8863 are slight and of little significance for navigation purposes.

On Chart No. 9193 the 19 fathom sounding just north of Saddle Point is incorrectly charted. The shelf extends westerly from the point rather than northerly. The 1.6 fathoms sounding off Sulphur Point is ~~not~~ shown on the chart. The new survey will require a general revision of the 100 fathoms curve from Cape Akuyan to Teapot Rock.

} P5 Review
} 1 f.m. charted.

The shoal off Sulphur Point in Lat. $52^{\circ} 05.1'$, Long. $176^{\circ} 00.1'$ is not shown on Chart No. 9139. The portions of No. 9139 covered by this survey are more completely surveyed but disclose no other significant changes.

N. DANGERS AND SHOALS.

Only one uncharted danger to navigation was discovered. A least depth of 1.6 fathoms, hand lead, was observed on the shoal off Sulphur Point in Lat. $52^{\circ} 05.1'$ Long. $176^{\circ} 00.1'$. See Pos. 111b, Launch No. 3. The rocks awash off Teapot Rock were confirmed. There are numerous rocks close inshore from Cape Kiugilak to Saddle Point. The inshore area is foul and marked by a heavy growth of kelp.

O. COAST PILOT INFORMATION.

See special report on Coast Pilot Information for Project 1218 submitted separately on 28 October 1955. There are no anchorages or channels in the area surveyed. Moderate tidal currents were observed in the vicinity of Swallow Head and Teapot Rock, see Paragraph D of this report. Vessels entering or departing from Sitkin Sound should pass two miles off Swallow Head to avoid the effect of currents in that area.

P. AIDS TO NAVIGATION.

The only aid to navigation in the area, other than natural landmarks, is the unwatched light on Swallow Head. The position of the light was determined by photogrammetric methods on T-11538 and is in Latitude $52^{\circ} 07' + 37^m$ Longitude $172^{\circ} 09' + 168^m$.

There are no submarine cables, bridges, or ferry routes in the area surveyed.

Q. LANDMARKS FOR CHARTS.

There are no landmarks in the area other than natural objects such as Teapot Rock.

R. GEOGRAPHIC NAMES.

All important land and water features are named as shown on Chart No. 9193. No attempt was made to verify the names since the chart is the only source of information to the people who temporarily reside in the vicinity.

Z. TABULATION OF APPLICABLE DATA.

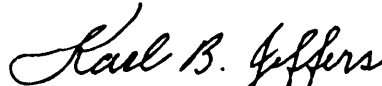
1. Submitted with this report
 - (a) 1 Smooth sheet
 - (b) 2 Boat sheets

- (c) 5 Volumes, sounding records
- (d) Fathograms

2. Submitted separately

- (a) Special report on fathometer corrections
- (b) Report on Coast Pilot No. 9
- (c) Advance manuscripts of T-11537 and T-11538 compiled by the Washington Office
- (d) Tide observations at Sweeper Cove and Sand Bay

Respectfully submitted



Karl B. Jeffers
Comdr., C&GS

Approval Sheet

H-8237, EX-2355

All Hydrography on this survey was accomplished under my direction and field work was inspected daily. The records and smooth sheet have been examined and are approved.

The bank which extends northeasterly from Swallow Head should have a few more lines run across it to properly develop the 50- and 100- fathom depth curves. No other field work is required.



S. B. Grenell

Capt., C&GS

Commanding Ship EXPLORER

List of Signals
 Hydrographic Survey H-8237
 Field No. HX-2359

NAME	SOURCE
Ada	T-11538
Almyan	Almyan 1953
Alv	T-11538
Ato	T-11537
Axle (Shoran)	Doc. Report H-8237
Baw	T-11538
Ben	T-11538
Bob	T-11538
One	T-11537
Cus	T-11538
Dad	T-11538
Die	T-11537
Dye	T-11538
Est	T-11538
Hnu	T-11538
Fal	T-11538
Fed	T-11537
Flo	T-11538
Gad	Vol. 3, pp. 10 and 11 ✓ D.J.K
Gar	T-11537
Great Sittin	Great Sittin (USN) 1934
Gyp	T-11538
Hag	T-11538
Head	Swallow Head Light T-11538
Hun	T-11538
Icy	T-11538
Ira	T-11538
Jab	T-11538
Jak	T-11538
Kak	T-11538
Knob	T-11538
Lan	T-11538
Loc	T-11538
Mon	T-11538
Mug	T-11538
Nik	T-11538
Nun	T-11538
Oaf	T-11538
Old	T-11537
Par	T-11538
Pay	T-11537

Fog
Fin
Fot
Fas
Fut
Fend (Sheran)
Fep
Fhe
Fpout
Fen
Fry
Fse
Fol
Fie
Fip
Fas
Fest
Fen
Fak
Zig

Vol. 1, pp. 13, 14, 15. ← L. J. K.
Pinnacle off Swallow 1953
Rampet Rock 1953
R-11537
R-11538
Des. Report R-8233
R-11538
R-11537
Rampet Spout 1953
R-11538
R-11537
R-11538
R-11538
R-11537
R-11537
R-11537
R-11538
Pinnacle West of Ulak 1953
R-11537
R-11538
R-11538

STATISTICS

HYDROGRAPHIC SURVEY H-2837

Field No. EX-2355

<u>Vol. No.</u>	<u>Day Ltr.</u>	<u>Date</u>	<u>No. Pos.</u>	<u>Sta. Miles</u> <u>Sdg. Lines</u>	<u>HL Sdgs.</u>
1	A(Ship)	9/7/55	139	42.1	-
2	a(lch. 1)	6/16/55	92	20.9	-
2	b(lch. 1)	9/9/55	123	20.5	-
2 & 3	c(lch. 1)	9/10/55	164	31.1	-
4	a(lch. 2)	6/16/55	203	23.0	-
4	b(lch. 2)	6/18/55	29	4.6	5
5	a(lch. 3)	9/9/55	112	17.3	-
5	b(lch. 3)	9/10/55	169	31.8	-
TOTALS			1031	191.3	5

AREA = 19.4 square statute miles.

TIDE NOTE TO ACCOMPANY

H-8237 Field No. EX-2355

All soundings on this survey except those taken on 16 June were referred to the standard tide gage at Sweeper Cove. Soundings on 16 June were reduced using the portable tide gage at Sand Bay, Great Sitkin Island. No time or range corrections were applied in either case.

Position of Sweeper Cove tide gage Lat. 50° - 51.7'N
Long. 176° - 38.4'W
MLLW = 3.3 feet on tide staff.

Position of Sand Bay tide gage Lat. 52° - 00.1'N
Long. 176° - 10.5'W
MLLW = 3.6 feet on tide staff.

GEOGRAPHIC NAMES LIST

Bering Sea .

Bugle Point .

Cape Akuyan .

Cape Kiugilak .

Great Sitkin Island .

Saddle Point .

Sitkin Sound

Sulphur Point .

Swallow Head .

Teapot Rock .

GEOGRAPHIC NAMES

Survey No. H-2237

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Alaska</u>			(For title)								1
<u>Aleutian Islands</u>			"	"							2
<u>Andreanof Islands (or Group)</u>			"	"							3
<u>Bering Sea</u>									BGN		4
<u>Sitkin Sound</u>											5
<u>Great Sitkin Island</u>									BGN		6
<u>Cape Kiugilak</u>									"		7
<u>Cape Akuyam</u>									"		8
<u>Saddle Point</u>									"		9
<u>Swallow Head</u>									"		10
<u>Teapot Rock</u>			(name applies to offshore rock)						"		11
<u>Sulphur Point</u>									"		12
<u>Bugle Point</u>									"		13
					Names approved 2-7-56						14
					L. Heck						15
Tide stations off limits of sheet:											16
<u>Sweeper Cove (Adak Island)</u>											17
<u>Sand Bay</u>											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8237....

Records accompanying survey:

Boat sheets .2...; sounding vols. .5...; wire drag vols.;
 bomb vols.; graphic recorder rolls ~~4-Envelopes~~
 special reports, etc. ~~1-Smooth sheet, 1-Descriptive report~~,.....

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

Number of positions on sheet		10.33
Number of positions checked		..6.7
Number of positions revised	0.
Number of soundings revised (refers to depth only)		..2.6
Number of soundings erroneously spaced	0.
Number of signals erroneously plotted or transferred	0.
Topographic details	Time	..32 hrs
Junctions	Time	..5 hrs
Verification of soundings from graphic record	Time	..2 hrs

Verification by D. J. Kennon..... Total time 20.5 hrs Date 7/19/56

Reviewed by [Signature]..... Time 35 Date 8-22-56

RHE

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys:~~

9 February 1956

Division of Charts: R. H. Carstens

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 8237

Locality Aleutian Islands, Alaska

Chief of Party: S. B. Grenell in 1955
Plane of reference is mean lower low water, reading
3.0 ft. on tide staff at Sweeper Cove
19.6 ft. below B. M. 16 (1951)

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

Condition of records satisfactory except as noted below:

William Shofar

Branch
Chief, ~~Division of~~ Tides and ~~Currents~~.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8237

FIELD NO. EX-2355

Alaska - Aleutian Islands, Andreanof Islands, North and
West side of Great Sitkin Island

Project No. 1218

Surveyed - June - Sept. 1955

Scale 1:20,000

Soundings:

Control:

Hand lead
Edo Fathometer
808 Fathometer

Shoran
Sextant fixes on
shore signals

Chief of Party - S. B. Grenell

Surveyed by - S. B. Grenell, F. X. Popper, S. L. Hollis and
G. E. Haraden

Protracted by - A. J. Hamlett

Soundings plotted by - A. J. Hamlett

Verified and inked by - D. J. Kennon

Reviewed by - I. M. Zeskind 8-22-56

Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with*unreviewed air-photographic
surveys T-111537 and T-111538 of 1953-55.

** Reviewed surveys applied 11-14-62 DRE*

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 are adequately delineated, except
inshore in depths less than 10 fms., where kelp and the foul
character of the bottom prevented development to the low-
water line.

This is an inshore survey extending from 1 to 1½ miles off
the shoreline.

The bottom is very irregular to the limits of the survey on the north and in depths less than 10 fms. on the west. The bottom is fairly smooth in depths greater than 10 fms. on the west. Submarine features such as ledges, reefs, pinnacles, ridges and troughs contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-8233 (1955) on the east, north and west. On the southwest junctions were effected with H-7605 (1946) and H-6918 (1943). In the inshore overlapping area of H-6918, a butt junction between H-6918 and the present survey was made because of differences of 0.5 to 1.5 fms. in depths which could not be resolved.

The project survey on the east side of the island southeast of the present survey has not yet been received in the Washington Office.

5. Comparison with Prior Surveys

H-6892 (1934), 1:30,000
H-6897 (1934), 1:60,000

These U. S. N. reconnaissance surveys together cover the area of the present survey. A comparison between the prior and present surveys reveals discrepancies in depths of 2 - 3 fms. close inshore and as much as 103 fms. about one-half mile or further offshore. An example of these latter discrepancies occurs in lat. $52^{\circ}06.57'$, long. $176^{\circ}10.85'$, where a prior depth of 19 fms. falls in present depths of 92 - 122 fms. These discrepancies are probably caused by weak control and inaccuracies in depth determination on the prior surveys. 19 removed
from chart
9193

Supplementary bottom characteristics have been carried forward from the prior surveys. The present survey is adequate to supersede the prior surveys within the common area.

H-6912 WD (1943), 1:20,000

The wire-drag survey covers that portion of the present survey on the west side of Great Sitkin Island which lies south of lat. $52^{\circ}01'$. A comparison between the wire-drag and present surveys shows the present survey depths to be in harmony with the effective wire-drag depths.

6. Comparison with Chart 8863 (latest print date 1-14-52)
 Chart 9139 (latest print date 6-2-52)
 Chart 9193 (latest print date 7-5-54)

A. Hydrography

The charted hydrography originates principally with the previously discussed prior surveys which need no further consideration and with one sounding from the present survey prior to verification and review. This sounding which is charted as 1 fm. in lat. $52^{\circ}05.1'$, long. $176^{\circ}00.1'$, originates with a 1.2 fm. sounding on the present survey prior to verification and review. The sounding was revised to 1.6 fm. after verification and review. *176° charted on 9193*

The present survey is adequate to supersede the charted information within the area of the present survey.

B. Aids to Navigation

The only aid to navigation falling within the limits of the present survey is the untended light on Swallow Head, Great Sitkin Island. Its survey position is in substantial agreement with the charted position and adequately marks the feature intended.

7. Condition of Survey

- (a) The sounding records and Descriptive Report are complete and comprehensive.
- (b) The smooth-plotting was accurately done, except that in numerous instances, position numbers and day letters were omitted at ends of lines and on detached positions.
- (c) Only two bottom characteristics were obtained in the area covered by the present survey.
- (d) About 90% of the shoreline and signals were revised because of changes in the topographic surveys subsequent to the original application to the smooth sheet. No replotting of sounding lines was found to be necessary.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions, except as noted in paragraph 7c above.

9. Additional Field Work Recommended

The survey is considered basic and no additional field work is recommended. As a matter of record attention is directed to the lack of bottom characteristics obtained in the area of the present survey, as noted in paragraph 7c above. Additional development delineating the head of the submarine canyon in the vicinity of lat. $52^{\circ}05.65'$, long. $176^{\circ}11.5'$ would have been desirable. Lack of development of the 9.2-fm. shoal northwest of Saddle Point is also noted. ✓

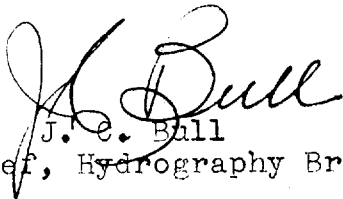
Examined and Approved:



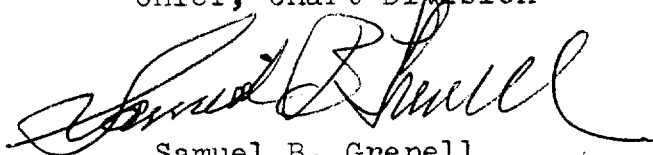
H. R. Edmonston
Chief, Nautical Chart Branch



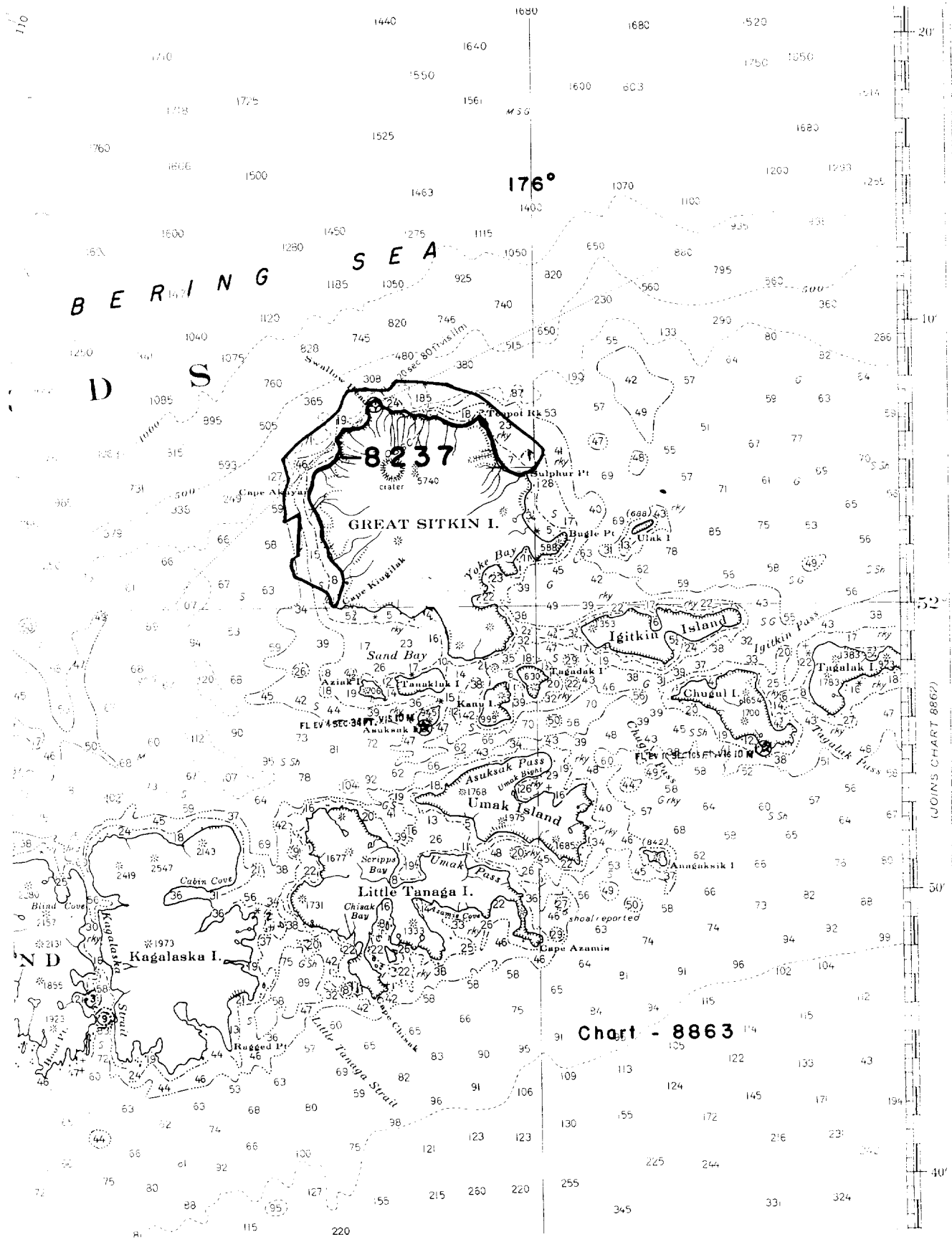
Charles A. Schanck
Chief, Chart Division



J. C. Bull
Chief, Hydrography Branch



Samuel B. Grenell
Chief, Division of Coastal Surveys



BERING SEA

8237
GREAT SITKIN I.

KAGALASKA I.

LITTLE TANAGA I.

UMAK ISLAND

Chart - 8863

JOINS CHART 8862

NAUTICAL CHARTS BRANCH

SURVEY NO. M-237

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3/27/56	8863	H. F. Stegman	Before After Verification and Review <i>Partially applied</i>
1/25/57	9193	<i>[Signature]</i>	Before After Verification and Review <i>Partially Applied</i> <i>Consider as fully applied until chart is reconstructed</i>
5/29/57	9102	C. R. Wattman	Before After Verification and Review <i>No changes made due to scale.</i>
7-16-58	8863	C. R. Wattman	Before After Verification and Review <i>Complete</i>
4/10/59	9139	<i>[Signature]</i>	Before After Verification and Review <i>Partially</i>
1-18-66	9139	<i>[Signature]</i>	Before After Verification and Review <i>Partly applied to be considered final application until chart is reconstructed</i>
2/21/66	9193	John P. Wes	Before After Verification and Review <i>Part. Applied</i> <i>consider fully applied in area of Ch 9139 until reconstr.</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.