

# 8140

Diag Cht 8863-3

OS-218

Form 504	
U. S. COAST AND GEODETIC SURVEY	
DEPARTMENT OF COMMERCE	
DESCRIPTIVE REPORT	
Type of Survey	HYDROGRAPHIC
Field No. EX 4254	Office No. H-8140
LOCALITY	
State	ALASKA
General locality	ALEUTIAN ISLANDS, ANDREANOF GROUP
Locality	SOUTH APPROACH TO ADAK STRAIT
1954	
CHIEF OF PARTY	
S. B. GRENBILL	
LIBRARY & ARCHIVES	
APR 22 1955	
DATE	

8-1870-1 (1)

Encl - H-8234 (1955)

# 8140

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. **E-8140**

Field No. **EX 4254**

State **ALASKA**

General locality **ALEUTIAN ISLANDS, ADIRKANOV GROUP**

Locality **SOUTHERN APPROACH TO ADAX STRAIT**

Scale **1:40,000** Date of survey **9-2 to 9-8, 1954**

Instructions dated **19 Mar 1952; 20 Feb 1953; 6 Apr 1953, 23 Dec 1953, 26 Apr 1954**

Vessel **Ship EXPLORER**

Chief of party **S. B. GREENELL**

Surveyed by **S. B. GREENELL, W. F. MAINATE, K. B. JEFFERS, J. C. TISON, JR.**

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

Fathograms scaled by **FATHOMETER READERS**

Fathograms checked by **K. B. JEFFERS**

Protracted by **S. B. GREENELL, W. F. MAINATE, K. B. JEFFERS, J. C. TISON, JR.**  
**See remarks.**

Soundings penciled by **A. C. HAGLUND**

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

REMARKS: **This is a combination boatsheet and smooth sheet plotted as an experiment under authority contained in Director's letter dated 26 April 1954, file 22/MEX.**

2172

Descriptive Report  
to accompany  
Hydrographic Survey No. H-8140  
(Field No. EX-4254)  
Southern Approach to Adak Strait  
Aleutian Islands, Alaska  
Project CS-218, Season 1954  
Scale 1:40,000

Surveyed by: S. B. Grenell, W. F. Malnate, K. B. Jeffers and J. C. Tison, Jr.

A. PROJECT

This survey was executed in accordance with the following instructions for Project CS-218:

1. Original instructions dated 19 March 1952.
2. Supplemental instructions dated 20 February 1953.
3. Letter 22/MEK, S-1-EX dated 6 April 1953, subject - "Clarification of Instructions".
4. Supplemental instructions dated 23 December 1953.
5. Letter 22/MEK, S-2-EX dated 26 April 1954, subject - "Combination Boat Sheet and Smooth Sheet for Hydrographic Surveys".

B. SURVEY LIMITS AND DATES

This survey includes the offshore area from Cape Tusik, Kanaga Island eastward to <sup>22°</sup>Latitude 176°-56 south of Cape Yakak, Adak Island, and the southern entrance to Adak Strait from Cape Chlanak, Kanaga Island to Cape Yakak. The survey extends offshore to a junction with prior surveys as follows:

H-7978, E.P.I. 1952, Scale 1:400,000  
H-8056, 1953 Scale 1:60,000

A junction was effected at the western limit of the survey off Cape Tusik with survey H-8055, 1953, Scale 1:20,000.

Junctions were made with contemporary surveys as follows:

H-8144 (1:20,000) south coast of Kanaga Island from Cape <sup>Not Re,</sup>  
Tusik to Cape Chlanak.  
H-8139 (1:40,000) south end of Adak Strait. <sup>NR</sup>  
H-8146 (1:20,000) southwest coast of Adak Island. <sup>NR</sup>  
H-8140 is a resurvey of the southern portion of H-6882,  
1:40,000 (USN) 1933.

### C. VESSEL AND EQUIPMENT

All hydrography on this survey was accomplished by the Ship ~~EXPLORER~~.

Turning radius of the ship (from 1952 descriptive report):

Full right rudder - 360 meters.

Full left rudder - 275 meters.

Soundings were scaled from continuous profiles recorded on 808 fathometer No. 113-S in depths up to approximately 100 fathoms and Edo fathometer No 4 in greater depths. ✓

### D. TIDE AND CURRENT STATIONS

A portable automatic tide gage was in operation at Cape Chlanak during the period of this survey.

No current stations were observed.

One Oceanographic station was occupied in 1330 fathoms and in the approximate center of the submerged gorge south of the entrance to Adak Strait. The station location is in Lat. 51°-27'5N, Long. 177°-05'4W. Serial temperatures were observed at standard depths. Oxygen and chlorinity titrations were made aboard ship. The results were forwarded to the Washington Office for transmission to the Hydrographic Office, USN. Copies of the data were given to the Dept. of Oceanography, University of Washington. ✓

### E. SMOOTH SHEET

On this survey only a combination boat sheet and smooth sheet was used under authority contained in the Director's letter 22/MEK, S-2-EX, dated 26 April 1954. The smooth sheet was constructed on a standard Watman sheet by ship's personnel. Triangulation stations and shoran arcs were plotted as soon as the projection had been constructed.

An overlay of tracing cloth was made on which hydrography was plotted as it was accomplished. Uncorrected soundings were plotted on the tracing. Sounding lines were drawn on the smooth sheet and positions were inked at the end of each day. The corrected soundings were penciled on the smooth sheet after the close of the field season.

See paragraph I (Control of Hydrography) of this report for a discussion of methods used. ✓

### F. CONTROL STATIONS

AGAT 1943 C. D. Meaney  
DAM-2 1943 C. D. Meaney  
RAN 1943 C. D. Meaney  
REAR 1943 C. D. Meaney ✓

YAKA 1954 S. B. Grenell

LANA A hydrographic control station located by a single triangle from DAM-2 and RAN. See computations attached to descriptive report for H-9139 (EX 4154).

The first 4 stations were used in visual fixed for calibration of shoran, and the last 2 stations were used as sites for the shoran antennas.

#### G. SHORELINE AND TOPOGRAPHY

No shoreline or topography is shown on this sheet. The nearby shoreline is shown on large scale sheets completed in the current year by this party. H.W.L. applied from T-9140 (1952), T-9940 (1952), T-4324 (1953), T-4334 (1953) and RC 490 (1952) X-C-54

#### H. SOUNDINGS

The soundings were all taken by echo sounding with an EDO fathometer, and/or 808 fathometer mounted on the ship EXPLORER. A detailed report on fathometer operation and corrections to fathometer soundings has been submitted as a separate Special Report for the season. This fathometer report constitutes a part of this descriptive report. *in Library*

#### I. CONTROL OF HYDROGRAPHY

The horizontal control for all hydrographic fixes on this sheet were shoran distances read from two shoran stations LANA and YAKA. A detailed description of the construction and operation of these stations appears in a SPECIAL REPORT on shoran corrections Project 218, 24 July to 12 Sept. 1954. The corrections given in that special report were not used on this sheet. Final corrections for this sheet were determined and applied to the readings before plotting in the field. The plotting was done directly on the smooth sheet. *in Library*

The corrections for the shoran distances were determined in the following manner: A 1:10,000 aluminum plotting sheet was prepared for the vicinity of Cap<sup>t</sup> Chlanak. Distance circles from the two shoran stations, and suitable triangulation stations were plotted on the aluminum sheet. Simultaneous visual fixes and shoran distance readings were taken while lying to off Cap<sup>t</sup> Chlanak. These fixes were assigned a position number and recorded in the sounding volumes, the shoran distances being placed in the remarks column. The positions were then plotted on the aluminum sheet from the visual fixes, and "true" distances read from the distance circles. These "true" distances were entered in colored pencil in the sounding volumes directly above the shoran distance read. The distance read was then subtracted from the "true" distance to obtain the correction.

A spare mobile shoran equipment was operated near station LANA, taking hourly readings on the two shoran stations to guard against any drift in the shore station equipments. Hourly ZERO CHECKS were taken on the ship to guard against any drift in the ship equipments. This variation would not be

plotable at the scale of the sheet and was not taken into account. The variation in the readings taken by the monitor were likewise small compared to the expected random error of 0.010 statute mile.

Three calibration fixes were taken on "A" day. No hydrography was done on that day. Four calibration fixes were taken at the beginning of "B" day, which showed a change in the correction for station LANA. Investigation showed that the supply voltage had changed at station LANA, and the readings taken by the monitor showed a similar change on that station. The correction as determined by the calibrations on "B" day were used for that day. Two calibrations were taken on "C" day, which showed a 0.005 statute mile change at station YAKA. This change was accepted and used on "C" day, and all subsequent days hydrography. Due to poor visibility no further calibrations were obtained.

For convenience in plotting the plotter kept an independent record of the horizontal control data on a shoran plotting abstract (form N-2527-1). The corrections for the shoran distances were entered at the head of the column for distance readings. The corrected shoran distance was computed and entered in colored pencil directly above the distance reading on the shoran abstract. The corrected distances were then plotted to obtain the final smooth sheet positions. These plotting abstracts are submitted with this report. Neither the correction nor the corrected shoran distance appear in the sounding volume. *Filed in Cahier*

If this sheet had been handled as a normal boat sheet, with final corrections computed and applied before plotting the smooth sheet, the corrections would have differed in the following particulars: Since all the calibrations gave values that were within the normal random error for shoran equipment, a mean ZERO SET for the sheet would have been computed. The variation at station LANA, due to the change in the supply voltage on "B" day, would have been treated as normal random variation. The variation of the ZERO CHECK would probably have been taken into account, so that the final corrections would have varied as the ZERO CHECK varied. The final corrections would have differed from those used by not more than 0.010 statute mile, and would have been no more accurate than the corrections actually used. ✓

#### J. ADEQUACY OF SURVEY

The survey of the area is complete and is adequate to supersede prior surveys. The survey complies with the project instructions.

At the junction with H-7978 (1952) no overlap was obtained, however, the depth curves can be smoothly joined except for the 1400 fm sounding on H-7978 at Lat 51-25.7 Long 177-05.7. The discrepancy is probably due to the expansion from 1:400,000 scale to 1:40,000 scale of this survey. *scale displacement*

The junction with H-8056 (1:60,000-1953) is good and all depth curves join smoothly along the southwesterly limit of the survey.

A satisfactory junction was made with H-8055 (1:20,000-1953) south of Cape Tusik. ✓

Satisfactory junctions were made with inshore launch surveys for the current season as follows:

- (1) Cape Tusik to Cape Chlanak, south coast of Kanaga Island, Survey No. H-8144 (EX2454). *Not Rec.*
- (2) South of Lake Point, Adak Island, Survey No. H-8146 (EX2654). *NA.*

These sheets have not been smooth plotted at this writing. See the descriptive reports of these surveys for a more complete discussion of junctions.

A junction was made with H-8139 (EX4154) at the south entrance to Adak Strait. Comparison between the boat sheets shows excellent agreement of crossings and smooth junction of depth curves. H-8139 has not been smooth plotted at this writing. *NA.*

#### K. CROSSLINES

Crosslines represent approximately ten (10) percent of the hydrography. The discrepancies at crossings are slight (one or two fathoms) in all cases except the following:

- (1) Pos 105c & 6 - <sup>297</sup>~~309~~ fathoms and 66f & 3 - 298 fathoms. *Very steep slope. Scanning adjusted.*

This crossing is on a steep slope and represents a very small displacement of one of the soundings.

- (2) There are a number of 2 and 3 fathom discrepancies and one <sup>bottom</sup> four fathom discrepancy along the northern limits of the survey in *very rough* general depths of 40 to 50 fathoms, see positions 5 to 17B. The *Xing O.K.* bottom is very rough in the area involving the largest differences and probably is the sole cause of the apparent discrepancies, see fathogram for 13 to 17B.

- (3) In addition to the above there are four 3 fathom crossings in depths ranging from 60 to 75 fathoms, and one 4 fathom crossing in 540 fathoms (~~66f & 3~~ and ~~105c & 6~~). All are on slopes and indicate only slight displacement of position. *4 fms in 540 fms is very good Xing*

#### L. COMPARISON WITH PRIOR SURVEYS

Most of the area covered by this survey was previously surveyed by the U.S. Navy in 1933, H-6882, on the same scale. This survey is more complete and should supersede the old survey. In general, depths to approximately 150 fathoms are in agreement on both surveys, but in greater depths the old soundings are considerably deeper. The present survey provides a more complete development of the canyon just south of Adak Strait and of the escarpment on the east side of the canyon. There are no dangers to navigation in the area on either survey. The submerged features are the same on both surveys but are revised some what in form and location by the new survey.

M. COMPARISON WITH CHART

The charted soundings are derived from Survey No. H-6882. See Chart No. 9193, 2nd edition print 53-7/20. The new survey should supersede H-6882 for the reason cited in paragraph "L" above. ✓

N. DANGERS AND SHOALS

There are no dangers to navigation or shoals within the limits of this survey.

O. COAST PILOT INFORMATION

See "Coast Pilot Notes, U.S. Coast Pilot-Alaska, Part II, Yakutat Bay to Arctic Ocean, Ship EXPLORER, 1954" forwarded to Washington separately.

There are no anchorages in the area of this survey. The entrance to Adak Strait is wide and deep water extends close inshore, however, vessels entering the channel should keep at least one mile off shore. There are strong currents thru the channel with eddies and tide rips under certain conditions. In addition to the currents thru the strait there is an east and west current along the south coast estimated at one knot or more. ✓

P. AIDS TO NAVIGATION

The only aid to navigation in this area is the unwatched light at the south end of Cape Yakak. See air photo manuscript T-11334 for position and elevation of the light. (Inshore survey.)

No bridges, submarine or overhead cables, or ferry routes exist. ✓

Q. LANDMARKS FOR CHARTS

See special report on nonfloating aids or Landmarks for Charts submitted separately.

The following listed objects are recommended for charting in this area

- (1) Wreck of the "Swallow", at the entrance to Kanaga Bay, and (2) two towers on Cape Yakak. (On inshore survey.) ✓

R. GEOGRAPHIC NAMES

See "Special Report on Geographic Names, Bobrof, Kanaga, and Adak Islands, USC&GS EXPLORER, season 1954" previously submitted. ✓

Z. TABULATION OF APPLICABLE DATA

1. Forwarded with this report:

- (a). Combination Boat and Smooth Sheet H-8140.
- (b). Tracing used as overlay boat sheet.
- (c). 3 volumes sounding records.
- (d). 1 envelope of fathograms.
- (e). 1 cahier of shoran abstracts. ✓



2. Data forwarded separately.

- (a). EXPLORER letter to the Director dated 1 Nov 195<sup>4</sup>, subject "Combination Boat Sheet and Smooth Sheet for Hydrographic Surveys".
- (b) Special Report on Geographic Names, Bobrof, Kanaga, and Adak Islands, EXPLORER, 1954.
- (c) Special Report on Fathometer Corrections, 24 July to 24 *in Library* Sept. 1954, EXPLORER, Project CS-218.
- (d) Coast Pilot Notes, U.S. Coast Pilot, Part II, Yakutat Bay to Arctic Ocean, EXPLORER, 1954.
- (e) Tide observations at Cape Chlanak, Kanaga Island.
- (f) Second and third order triangulations, Adak Strait, 1954.
- (g) Seasons Report, Ship EXPLORER, Project CS-218, 1954.

Respectfully submitted

*Karl B. Jeffers*  
Karl B. Jeffers  
Cdr., USC&GS

STATISTICS  
HYDROGRAPHIC SURVEY H-8140  
FIELD NO. EX-4254  
SHIP EXPLORER  
PROJECT CS-218

VOL. NO.	DAY LTR	DATE	NO. POS.	WIRE SDGS.	STA. MILES SDG. LINE
1	A	9-2-54	3	0	0
1	B	9-3-54	78	0	51.6
1 & 2	C	9-4-54	135	0	109.8
2 & 3	D	9-5-54	119	0	108.2
3	E	9-6-54	39	0	33.9
3	F	9-8-54	98	11	53.3
Totals			472	11	356.8

AREA SURVEYED

179 Sq. Sta. Miles

**TIDAL NOTE**

To accompany Hydrographic Sheet EX-4254 Reg. No. H-8140

Tide reducers for the whole sheet were taken from the records of the Cape Chlanak gage with no correction for distance from the gage.

Position of the gage: Latitude 51-42.6  
Longitude 177-08.7

Staff reading of MLLW was 3.0 feet.

APPROVAL SHEET  
H-8140 (EX 4254)

All hydrography on this survey was accomplished under my direct supervision. The method of smooth plotting conforms with instructions from the Director dated 26 April 1954 (22/MEK, S-2-EX). The survey is complete and adequate. No additional field work is required.

The records and smooth sheet have been examined and are approved.

Methods employed in execution of this survey depart from previous standard practices with respect to smooth plotting. The same procedure is recommended for surveys of a similar nature, ie; Offshore ship hydrography which is controlled by electronic positioning equipment. ✓

  
S. B. GREENELL  
Cdg Ship EXPLORER

# GEOGRAPHIC NAMES

Survey No. H-8140

GEOGRAPHIC NAMES		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	
Name on Survey		A	B	C	D	E	F	G	H	K							
<u>Naga Point</u>								BGN									1
<u>Cape Chlanak</u>								BGN									2
<u>Kanaga Island</u>								BGN									3
<u>Kanaga Bay</u>								BGN									4
<u>Cape Tusik</u>								BGN									5
<u>Adak Strait</u>								BGN									6
<u>Adak Island</u>								BGN									7
<u>Wedge Point</u>								BGN									8
<u>Hook Point</u>								BGN									9
<u>Lake Point</u>								BGN									10
																	11
																	12
								Names approved									13
								4-19-55									14
								a. j. w.									15
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234

# Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8140...

## Records accompanying survey:

1 Tracing  
Boat sheets ~~overlay~~; sounding vols. 3....; wire drag vols. ....;  
used as Boat sheet  
bomb vols. ....; graphic recorder rolls 1 ~~env.~~;  
special reports, etc. ....1 ~~cabier-Shoran~~ Plotting Abstracts,.....  
1 Smooth sheet.....

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

Number of positions on sheet	Prelim	472	472
Number of positions checked	4	63	
Number of positions revised	1		
Number of soundings revised (refers to depth only)	✓		
Number of soundings erroneously spaced	5		
Number of signals erroneously plotted or transferred	✓		
Topographic details	Time	8 hrs	✓
Junctions	Time	16 hrs	✓
Verification of soundings from graphic record	Time	2 hrs	8 hrs
Verification by... <i>Prelim</i> A.R. Stini J. B. Chambers	Total time	32 hrs 48 hrs	Date 8/2/55 2/23/56
Reviewed by... A.R. Stini	Time	39 hrs	Date 8/22/55
Addendum A.R. Stini		24 hrs	7/3/56

RHC

# TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coast and Geodetic Survey~~

26 April 1955

Division of Charts: R. H. Carstens

Plane of reference approved in  
3 volumes of sounding records for

HYDROGRAPHIC SHEET

8140

Locality Aleutian Islands, Alaska

Chief of Party:

Plane of reference is mean lower low water, reading  
3.0 ft. on tide staff at Cape Chlanak, Kanaga Island  
8.5 ft. below B. M. 1 (1954)

Height of mean high water above plane of reference is 3.4 feet.

Condition of records satisfactory except as noted below:

*E. C. McKay*  
Tides Branch

Chief, Division of Tides and Currents.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8140

FIELD NO. EX-4254

Aleutian Islands, Andreanof Group, South Approach to Adak Strait

Project No. CS-218

Surveyed - Sept., 1954

Scale 1:40,000

Soundings:

Control:

808 Fathometer

Shoran

Chief of Party - S. B. Grenell

Surveyed by - S. B. Grenell, W. F. Malnate, K. B. Jeffers,  
and J. C. Tison, Jr.

Protracted by - S. B. Grenell, W. F. Malnate, K. B. Jeffers,  
and J. C. Tison, Jr.

Soundings plotted by - A. C. Haglund

Preliminary Verification by - A. R. Stirni

Verified and inked by - J. C. Chambers

Reviewed by - A. R. Stirni 8-22-55

Inspected by - R. H. Carstens

1. Shoreline and Control

High water line for orientation was applied principally from advance prints of unreviewed air-photographic surveys T-9940 (1952) and T-9941 (1952) and from prints of preliminary manuscripts of T-11329 (1953) and T-11334 (1953). A small section was added from the unreviewed manuscripts of R. S. 490 (1952).

The source of the signals is given in the Descriptive Report.

2. Sounding Line Crossings

The sounding line crossings are in good agreement.

3. Depth Curves and Submarine Relief

The present survey covers a portion of the lower end of Adak Strait and southward to lat.  $51^{\circ}25'$ . A prominent deep canyon originates between southeastern Kanaga Island and southwestern



Adak Island and extends southwesterly. Soundings in the deeper part of the nanyon range between 500 and 1400 fathoms. The usual depth curves can be adequately delineated.

4. Junctions with Contemporary Surveys

The present survey is in harmony with unverified survey H-8055 (1953) on the northwest, preliminary verification of H-8056 (1953) on the west, and reviewed survey H-7978 (1952) on the south. Surveys on the north and east, have not yet been registered. The transfer of junctional soundings and the inking of depth curves has been deferred pending complete verification of the present survey and all junctional surveys.

5. Comparison with Prior Surveys

H-6882 (1933), 1:40,000

H-6899 (1934), 1:60,000

H-7049 (recon.) (1945), 1:160,000

The prior U. S. Navy survey H-6882 (1933) covers the greater portion of the surveyed area, except for the deeper part of the canyon south of Adak Strait. Small scale reconnaissance survey H-7049 (1945) and U. S. Navy survey H-6899 (1934) extend into the area with only a few soundings on the east and west sides. A comparison between the present survey and the prior surveys reveal differences of as much as 70-80 fms. in some areas, as for example in lat.  $51^{\circ}27.15'$ , long.  $176^{\circ}59.55'$ , where prior depths of 450 fms. fall in present depths of 367 fms. The differences can be attributed to errors in the prior survey depths and in positions over steep slopes.

The present survey is adequate to supersede the prior surveys within the common area.

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

A. Hydrography

Charted hydrography originates with the previously discussed prior surveys. No further discussion is deemed necessary.

The charted hydrography is entirely superseded by the present survey.

B. Aids to Navigation

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

7. Condition of Survey

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

(b) The field application of faulty corrections for phase differences on the 808 fathometer was detected by an inspection of the survey in the Washington Office. The survey was returned to the field party where the necessary revisions were made. Discrepancies originally appearing on the smooth sheet at crossings and between 808 and EDO-fathometer soundings were resolved by the new corrections.

(c) The preliminary verification and inspection indicates that the smooth plotting was accurately done. A combination boat and smooth sheet was used in accordance with the Director's letter 22/MEK, S-2-Ex., dated 26 April 1954.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

The survey is considered basic within the limits covered and no additional field work is recommended. ✓

Examined and Approved:



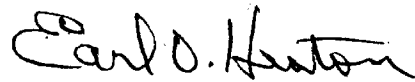
H. R. Edmonston  
Chief, Nautical Chart Branch



E. R. McCarthy  
Chief, Division of Charts



J. C. Bull  
Chief, Hydrography Branch



Earl O. Heaton  
Chief, Division of Coastal Surveys

Addendum to Review

H-8140 (1954)

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Inked by J. C. Chambers  
Review Addendum by - A. R. Stirni 4/3/56  
Inspected by - R. H. Carstens

The verification of this survey is now complete.

Junctions with Contemporary Surveys

Satisfactory junctions were effected between the present survey and reviewed surveys H-8056 (1953) on the west and H-7978 (1952) on the south. Survey H-8055 (1953) on the northwest is not verified and survey H-8234 (1955) on the east has been given only a preliminary verification. Surveys on the north have not yet been registered.

Comparison with Chart 9193 (print date 7/5/54)  
Chart 8863 (drawing: no date)

The charted hydrography on Chart 9193 originates with the prior surveys which are discussed in the review.

The deep-water soundings on Chart 8863 originate with the boat sheet of the present survey (Bp. 51929) and are generally 2 fms. shoaler than the verified soundings. Several charted soundings in the northwest portion of the survey area originate with the previously discussed prior surveys. The 460 and 550-fm. soundings charted from H-7978 in the vicinity of lat. 51°23.8', long. 177°01.5' conflict with junctional soundings on the present survey and survey H-8234 and are superseded by soundings on these surveys.

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

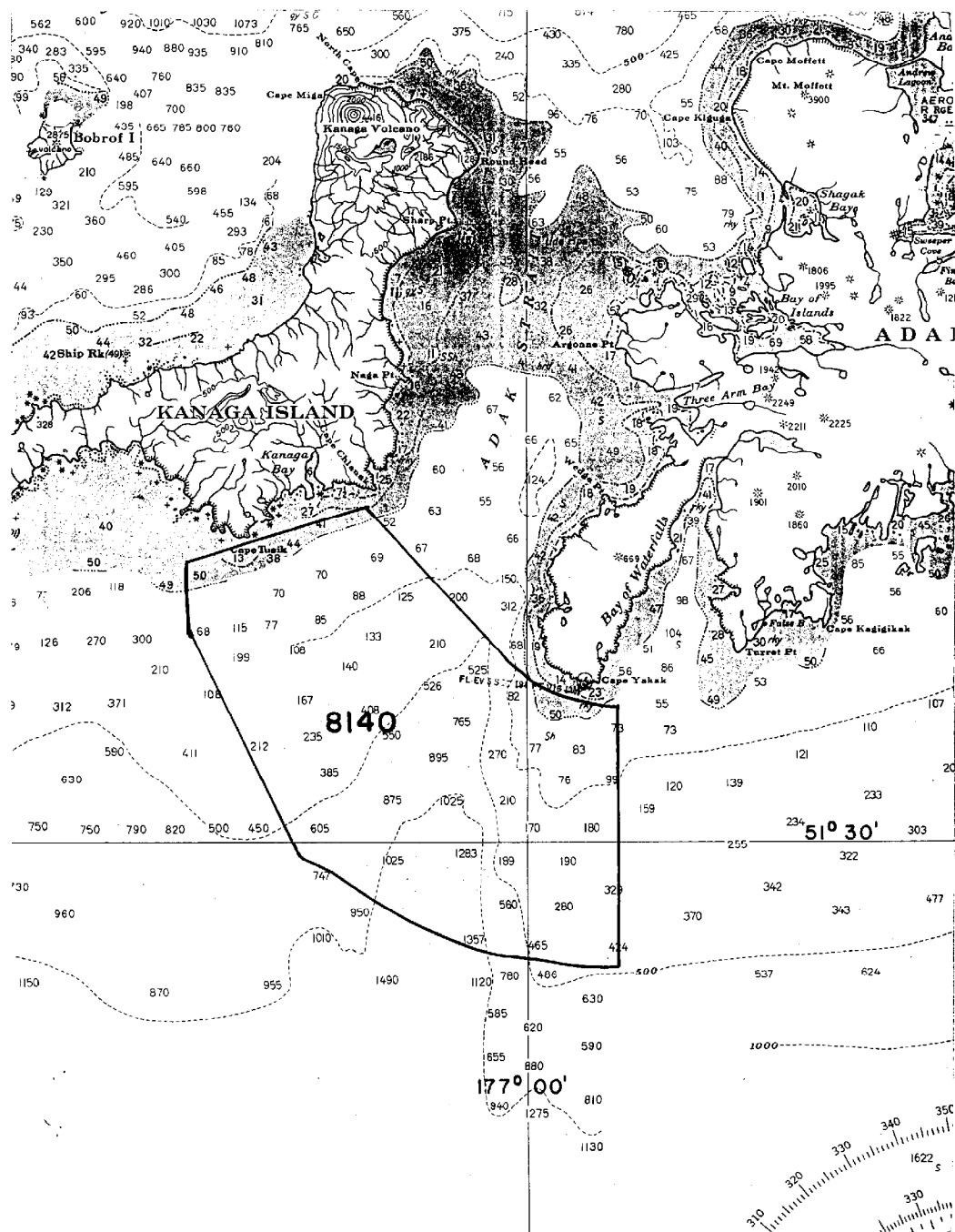
Condition of Survey

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

*E. R. McCarthy*

E. R. McCarthy  
Chief, Chart Division

Approved:



## NAUTICAL CHARTS BRANCH

SURVEY NO. H-8140

### Record of Application to Charts

[illegible]

**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.**