

8089

Diag. Cht. Nos. 8700 and 8859.

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. SU-2.5/155 Office No. H-8089

LOCALITY

State Alaska

General locality Alaska Peninsula-South Side

Locality East Of Wosnesenski Island

19 55

CHIEF OF PARTY

F. G. Johnson

LIBRARY & ARCHIVES

DATE March 6, 1956

8-1870-1 (1)

8089

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-8089

Field No. SU-2.5/155

State Alaska

General locality Alaska Peninsula - South Side

Locality East of Wosnesenski Island

Scale 1:25,000 Date of survey 11 May to 26 June 1955

Instructions dated 22 December 1954

Vessel Ship SURVEYOR & Launches 1, 3 & 4

Chief of party Frank G. Johnson

Surveyed by P. Taylor, G. W. Moore, V. R. Sobieralski, J. Dermody

Soundings taken by fathometer, ~~graphic or other mechanical devices~~

Fathograms scaled by R. Herr, L. Hitt, R. Rowse

Fathograms checked by V. R. Sobieralski, J. Dermody, D. E. Westbrook

Protracted by D. E. Westbrook, G. A. J. Pauw - Seattle P.O.

Soundings penciled by D. E. Westbrook

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

REMARKS: Space for 1:20,000 insert of Coal Bay was left on the top of the smooth sheet. Field work could not be done on this insert in the 1955 season. Space at top of smooth sheet cut off.

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC
SURVEY H-8089
FIELD No. SU 2.5/155

ALASKA PENINSULA SOUTH SIDE - EAST OF WOSNESENSKI ISLAND

PROJECT 1344
SCALE 1:25,000

USC&GS Ship SURVEYOR
F. G. Johnson, Comdg.

A. PROJECT

Revised instructions to the Commanding Officer, USC&GS Ship SURVEYOR for Project 1344, dated 22 December 1954. ✓

B. SURVEY LIMITS AND DATES

The survey includes that general area south of the Alaska Peninsula between the Pavlof and Shumagin Islands, and east of Wosnesenski Island included between the Latitude $55^{\circ} 03'$ and $55^{\circ} 14'$ N and Longitude $161^{\circ} 06'$ and $161^{\circ} 23'$ W. Field work was begun on 11 May 1955 and was finished on 26 June 1955. ✓

⁽¹⁹⁵⁴⁾ This survey makes junction on the east with previous surveys of this vessel, H-8158 (SU 2.5/254); with reconnaissance survey H-3654 (1923-1939); on the south with H-6774 and H-6771 (1942); and on the north with contemporary survey H-8159 (1954).

A 1:20,000 insert of Coal Bay had been planned as part of this survey, however field work could not be done on it during the 1955 field season. ^{Survey not made.} 7/14/58

Progress of field work was greatly curtailed this season by boiler breakdowns. Time was lost from 20 May to 9 June while boilers were being repaired, and the season ended 5 July for the same reason. ✓

C. VESSELS AND EQUIPMENT

The Ship SURVEYOR, using 808 fathometer No. 128-S and EDO fathometer Model 185, No. 2, was used for offshore hydrography. The SURVEYOR's turning circle at sounding speed is approximately 400 meters. Hydrography done before 20 May was at a speed of 8.5 to 9.0 knots. Hydrography after this date was done at 7.5 to 8.0 knots due to reduced boiler pressure. ✓

Ship-based launches, No. 1 (with ⁷⁰⁸ fathometer No. 158-SFX), No. 3 (with 808 fathometer No. 47-S), and No. 4 (with 808 fathometer No. 69-S), were used for inshore hydrography. The turning radius for all three at 7 knot sounding speed, is approximately 20 meters.

D. TIDE AND CURRENT STATIONS

Tide data used in this survey ^{were} was obtained from portable automatic tide gages at Coal Bay (latitude $55^{\circ} 22.1'$ N, Longitude $161^{\circ} 19.2'$ W), Sand Point (Latitude $55^{\circ} 20.2'$ N, Longitude $160^{\circ} 30.1'$ W) and Ukolnoi Island, ^{fall off H-8089}

(Latitude $55^{\circ} 15.6'$ N, Longitude $161^{\circ} 32.2'$ W).

No corrections for time or height were necessary (Ref.: Director's letter, 36-rjb, dated 1 September 1954), and the gages could be used interchangeably.

No current observations were made as such within the limits of this survey. (See Paragraph U, MISCELLANEOUS)

E. SMOOTH SHEET

Smooth sheet H-8089 was projected by hand, Shoran arcs drawn, and control plotted aboard Ship SURVEYOR. Shoreline and signals were transferred to the smooth sheet by Saltzman projector from 1:20,000 manuscripts T-11117 and T-11118, to reduce them to 1:25,000 scale. The transfer of shoreline and topographic details has been verified and is in agreement with the manuscripts. A discrepancy between the visual and Shoran hydrography was found on the smooth sheet. This discrepancy is discussed, along with recommendations as to its removal in Paragraph I, CONTROL OF HYDROGRAPHY. (P 7) Review

F. CONTROL STATIONS

ARC	T-11117-8	Advance Manuscripts
BAS	"	" "
BOW	"	" "
DUN	"	" "
MEG	OMEGA, 1954	Triangulation
PIN	T-11117-8	Advance Manuscripts
TOP	"	" "
TRY	"	" "

No recoverable topographic stations were established. Shoran stations "BAY" and "SEAL" had been located by triangulation in 1954.

G. SHORELINE AND TOPOGRAPHY

Shoreline was obtained from Advance Manuscripts T-11117 and T-11118. (P 1952-55)
Some revision of the shoreline was necessary in Latitude $55^{\circ} 11.75'$ N, Longitude $161^{\circ} 19.9'$ W where the aerial photographs were difficult to interpret. The manuscripts have been revised in this area by the Washington Office.

Due to rugged shoreline, rough seas, and thick kelp areas, it was impractical to delineate the low water line by sounding.

A discrepancy exists between the shoreline and the shoran controlled hydrography, but since the shoreline is assumed to be in its proper position, this discrepancy will be discussed in Paragraph I, CONTROL OF HYDROGRAPHY. also see P 7 of Review

H. SOUNDINGS

All soundings from launches and most on the ship were made with 808 fathometers equipped with tachometer reeds calibrated at 800 fathoms per

second. Standard methods were used to determine initial, index, and phase corrections.

Some soundings from the ship were made with the EDO fathometer Model 185, No. 2, sounding on the 600 feet scale.

Reference is made to the Fathometer Report 1955 of this vessel.

I. CONTROL OF HYDROGRAPHY *See TP 7c of Review*

Most of the hydrography was controlled by two Shoran stations: "BAY" located near TRAP, 1913, r. 1954, and "SEAL", located at SEAL, 1954. The small bay on the northeast side of Wosnesenski Island (Latitude 55° 12.5' N, Longitude 161° 20.0' W) was surveyed using standard methods of visual control.

Simultaneous Shoran and visual fixes were taken at the junction of the two methods of control and a discrepancy exists between the two. This discrepancy was studied as fully as possible and the results are as follows:

1. Areas where discrepancy exists.

A discrepancy of from 75 to 100 meters exists between the Shoran and visual hydrography in the small bay mentioned above. The Shoran hydrography is displaced to the northwestward in this bay.

(1954-55)
At the junction of this sheet with H-8159 to the north, there is also a displacement of approximately the same amount, but the direction varies as the "SEAL" arcs vary in direction.

Little is known about the accuracy of the surveys to the south, H-6771 and H-6774 done in 1942, but a discrepancy shows up there also.

2. Possible reasons for discrepancy.

in same area as in 1954
(a) Calibration was done in an area quite distant from the actual sheet area. (See Shoran Calibration Reports, Ship SURVEYOR 1954 and 1955).

Not received in office REE
(b) Shoran calibration was done only once during the time hydrography was accomplished on this sheet because of the abrupt end of the field season plus inclement weather.

(c) Attenuation effects and certain other possible Shoran eccentricities the extent of which are still unknown may also have contributed to the discrepancy.

3. Discussion of corrections.

Calibration data are not recorded in sounding volumes, nor in shoran abstracts REE
Upon investigation of junctions and simultaneous fixes, it was found that if the values of station "SEAL" were held constant and a negative correction was applied to "BAY" values, the discrepancy would become a great deal less in all cases mentioned above.

Since the same equipment was used under the same conditions as in 1954, it was found that by using the same zero sets on "BAY" and "SEAL" that were used last year (1954) Launch 1, 3 & 4 ("BAY" 99.787, "SEAL" 99.757) Ship

("BAY" 99.792, "SEAL" 99.779) a better agreement with junctions and shoreline can be obtained. If this is done, the values of "SEAL" will remain virtually constant and a negative correction is applied to values of "BAY"; which is exactly the result desired.

We feel there is also an attenuation effect which should be applied to both 1954 (H-8159) and 1955 (H-8089) hydrography to make the surveys agree as closely as possible with each other and also with the shoreline.

The calibration was done at approximately 20 miles from "SEAL" and 10 miles from "BAY". Hydrography in the area near the northeast end of Wosnesenski Island was done at about 20 miles from "BAY" and 10 miles from "SEAL". Because of this physical difference in distances and the long lengths involved, we feel attenuation in Shoran distance comes into effect.

"BAY" being a short distance away at calibration would have a negative correction for attenuation at a distance of 20 miles. While "SEAL" was a long distance away at calibration, the attenuation at a short distance would be a positive correction since attenuation was allowed for unknowingly in the calibration for station "SEAL".

Since attenuation corrections of plus 0.010 mile on "SEAL" readings and -0.010 on "BAY" readings, along with using the 1954 calibration zero sets, would be of about the correct magnitude for satisfying the requirements of the junctions, etc.

4. Summary and recommendations:

Corrections to be applied for most complete agreement in all cases:

(a) Use 1954 calibration data for both "BAY" and "SEAL" on both Ship SURVEYOR and launch hydrography in 1955.

(b) Use varying attenuation corrections for both "BAY" and "SEAL" depending on distances from each. A recommended table of attenuation corrections are as follows:

MILES AWAY	0-12.5	12.5-17.5	17.5-22.5	Over 22.5
"BAY"	0	-0.005	-0.010	-0.015
"SEAL"	+0.010	+0.005	0	-0.005

5. Recommendations for removal of discrepancy:

Since, in using the aforementioned corrections, each individual Shoran position would have to be replotted with new "BAY" and "SEAL" values, it is felt that a more practical method could be used for bringing the various discrepancies of the sheet into close agreement. In reviewing the differences between each of a few characteristic Shoran positions already plotted on the sheet, and their new positions as determined by the corrections in Paragraph I, we find that the differences are more or less uniform in the amount and direction of displacement. By taking the approximate average distance and direction of

Study of shoran corrections made during verification attached to verifiers report. Correction in position amounted to about 60 m. in a ESELY direction. Hydro. positions along lines were not revised on S.S. but the selected soundings were shifted to correct position.

See P 7c of Review

displacement of these characteristic positions and shifting every Shoran position by this amount, the ensuing discrepancies would be small enough to satisfy the accuracy requirements of the area. The amount each Shoran position (i.e. Shoran hydrography as a unit) should be moved would be 65 meters in a direction of 110° True. The average discrepancy resulting between using this method, and the one where each position would be replotted separately using individual corrections, is only about 20 meters. Thus it seems that shifting all Shoran hydrography as a unit by the amount suggested would be completely justified and satisfactory in this case.

J. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede previous surveys. Junctions with prior surveys are adequate (see Paragraph I) and no holidays exist. Depth curves can be adequately drawn at the junctions provided the above mentioned discrepancy (Paragraph I) is removed. No non-standard depth curves were drawn.

See
Review
P4 & 6

K. CROSSLINES

Approximately 10 per cent of the lines run were crosslines. Crossings on the whole were excellent. Where there were discrepancies, they were of the order of 1 fathom or less in about 30 fathoms, which is well within the allowable limit of 5 percent of the depth.

L. COMPARISON WITH PRIOR SURVEYS

There were no prior surveys in the immediate survey area. However, there was a sketch, dated 1900, showing various rocks awash and breakers, from which the charted symbols had been based. This information was more or less correct, but the new survey should supersede all preceding data.

See
P 5
Review

Junction was made to the east with 1954 survey H-8158. That smooth sheet has not been completed, but the junction between the two sheets has been penciled. It is felt by the smooth plotter that the corrections, when applied to Survey H-8089 as mentioned in Paragraph I, would aid agreement at the junction to make it more satisfactory.

See
P 4 of
Review

Junction with prior surveys on the south was made. These surveys, H-6771 and H-6774 were on 1:20,000 and 1:40,000 scales respectively, and both were done in 1942. There is about the same amount of discrepancy between the new and old surveys as there is between the Shoran and visual hydrography on the new survey taken by itself. If the Shoran hydrography on this sheet (H-8089) were moved as recommended in Paragraph I, the junction on the south would become acceptable.

See
P 4 of
Review

Junction on the north was made with ^{Contemporary} ~~prior~~ survey H-8159 done in 1954 (with additions in 1955). Here too, the recommended adjustment as in Paragraph I would bring the junction into quite close agreement.

M. COMPARISON WITH CHART

Chart 8704 was compared to survey H-8089. The chart shows no soundings in the area. Miscellaneous charted rocks and fould areas were charted from a sketch dated 1900. The new survey supersedes all previous data of this type.

*sec 16
of review*

N. DANGERS AND SHOALS

Preliminary positions and least depths were reported to the Washington Office by letter dated 8 July 1955. Corrected positions and depths as per smooth sheet are as follows:

<u>Depth in Fathoms</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Position No.</u>	<u>Launch</u>
9.1 ✓	55° 07.71' N	161° 10.84' W	42-43 d	1
5.2 ✓	55° 07.86' N	161° 07.62' W	102 d	1
7.0 ✓	55° 08.66' N ⁰⁴	161° 07.42' W	80-81 c	1
11.1 ✓	55° 08.90' N	161° 10.56' W	44-45 g	4
9.0 ✓	55° 09.13' N	161° 08.08' W	14-15 g	4
8.5 ✓	55° 09.19' N	161° 16.64' W	8-9 f	4
1.2 ✓	55° 09.30' N	161° 14.59' W	90 e	4
6.9 7.1 ✓	55° 10.59' N	161° 10.00' W	104-105 e	4
9.1 ✓	55° 11.23' N	161° 12.40' W	5 g	3
9.1 ✓	55° 11.30' N	161° 12.98' W	8 g	3
7.7 ✓	55° 11.65' N	161° 18.58' W	60-61 h	3
8.0 ✓	55° 12.16' N	161° 13.59' W	16-17 f	3
5.5 ✓	55° 12.10' N	161° 15.17' W	72-73 h & 74 h	3
5.5 ✓	55° 12.12' N	161° 14.50' W	27 l	3
4.3 ✓	55° 12.93' N	161° 13.80' W	23 j	3
5.4 ✓	55° 13.12' N	161° 10.90' W	21 l	3
7.4 ✓	55° 13.45' N	161° 07.89' W	9-10 l	3
1.8 ✓	55° 12.49' N	161° 14.38' W	12 j	3
2.5 ✓	55° 13.26' N	161° 15.33' W	10-11 k	3

*also
955° 12.09 N
161° 15.08 W
& 2 stgs. of S.S. close
together.*

O. COAST PILOT INFORMATION

*Checked the above shoal soundings
to see if any changes were necessary to 8359
Re print now in reproduction. No changes needed.*

The following changes to the 1954 edition are recommended: *LSS 3/13/56*

Page 316, Line 32 - delete: "A pile.....same ledge." and "It may..... thick weather."

Page 319, Line 41 -add:of a bare ledge, "or in the small bay, one quarter mile south of the N E end of the island in sand bottom."

Page 319, Line 40-41 - substitute: "Small vessels may anchor" for "A vessel may anchor."

Page 319, Line 43 - delete: "or 3" and "probably". add: ...rocks exist, "the shoalest of 1/2 foot, 1.2 miles north of the N E end of the island."

P. AIDS TO NAVIGATION

There are no aids to navigation within the area of this survey.

Q. LANDMARKS

There are no landmarks charted, and none are recommended.

R. GEOGRAPHIC NAMES

Reference is made to the special report on geographic names submitted by this vessel, 1955.

The small rocky island on which triangulation station OMEGA, 1954 is located should have a name, since it is used by navigators in the area.

S. SILTED AREAS

No silting is apparent.

T. STATISTICS

<u>Vessel</u>	<u>Number of days</u>	<u>Number of Volumes</u>	<u>Number of Positions</u>	<u>Statute miles of Sounding</u>
SURVEYOR	10	5	845	362.7
Launch 1	4	2	380	113.2
Launch 3	12 ←	4	854	229.7
Launch 4	11	4	797	254.1
TOTALS	<u>37</u>	<u>15</u>	<u>2876</u>	<u>959.7</u>

U. MISCELLANEOUS

Strong currents requiring large course changes to stay on line were encountered as follows:

On 19 May 1955 from 1140 to 1145, west of the 2 - fathom shoal at Latitude $55^{\circ} 14.2' N$, Longitude $161^{\circ} 14.3' W$, the current set northerly.

On 13 June 1955 from 1650 to 1655, in the vicinity of Latitude $55^{\circ} 12.3' N$, Longitude $161^{\circ} 08.4' W$, the current set southerly.

On 14 June 1955 from 1045 to 1050, in the vicinity of Latitude $55^{\circ} 12.0' N$, Longitude $161^{\circ} 08.0' W$, the current set southerly.

Z. TABULATION OF DATA

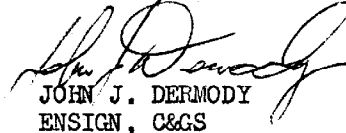
Letter dated 8 July 1955, (Reference SUR/PT/wkk, File 703.3, Ser 10) ✓
Subject: List of Least Depths. (L-539(1955))

Shoran Calibration Report - SURVEYOR 1955
Fathometer Calibration Report - SURVEYOR 1955, sent 18 Oct. 1955 ← 4

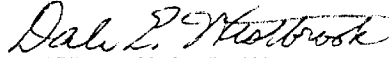
*The Shoran Report is not on file in Lib 2-1
8-30-57 REE*
*Shoran Report is not on file in Electronics Lab
8-30-57 REE*

Geographic Names Report - SURVEYOR 1955, sent 26 August 1955
Photogrammetry Report - SURVEYOR 1955 (Project PH-111) sent
26 August 1955
Triangulation Report - SURVEYOR 1955, sent 21 October 1955
Coast & Beach Intelligence Report, 1955, sent 18 October 1955

Respectfully submitted



JOHN J. DERMODY
ENSIGN, C&GS



DALE E. WESTBROOK
ENSIGN, C&GS

Approved and Forwarded:



FRANK G. JOHNSON, CAPT., C&GS
Commanding Officer
USC&GS SURVEYOR

Approval by Chief of Party

This hydrographic survey (H-8089) was completed under my supervision. It is complete and adequate for charting and supersedes all prior surveys in this area.


All processing of this sheet has been completed, and the method noted in Paragraph I of this report for correcting the displacement, discovered in the area of the small bay at the northeast end of Wosnesenski Island between the Shoran and visual hydrography, is approved.

This series of simultaneous fixes actually amounts to an additional calibration and was used as the basis for obtaining the corrections arrived at in Paragraph I. It is recommended that the Shoran hydrography be shifted by the amount and direction shown in that paragraph.

The sheet had been plotted before this additional calibration data was available. Under normal conditions, more calibration information would have been obtainable, but due to the shortening of the season because of ship boiler failures, this could not be done.

The previous season's Shoran calibration (1954) works more satisfactorily as noted in Paragraph I. The same care was taken this season in calibrating, but the fact that the Shoran stations were established and taken out twice must have affected the accuracy of the calibration.

The corrections arrived at in Paragraph I. CONTROL OF HYDROGRAPHY are, to the best of my knowledge, logical and complete.


FRANK G. JOHNSON
CAPTAIN, C&GS
Commanding Officer
USC&GSS SURVEYOR

EHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coast and Survey~~

28 March 1956

Division of Charts: R. H. Carstens

Plane of reference approved in
15 volumes of sounding records for

HYDROGRAPHIC SHEET 8089

Locality Alaska Peninsula (South Side)

Chief of Party: F. G. Johnson in 1955

Plane of reference is mean lower low water, reading

1.8 ft. on tide staff at Seal Cape, Coal Bay
10.8 ft. below B. M. 1 (1954)

1.7 ft. on tide staff at Ukolnoi Island
13.0 ft. below B.M. 1 (1955)

3.9 ft. on tide staff at Sand Point
8.4 ft. below B.M. 7 (1950)

Height of mean high water above plane of reference is as follows:

Seal Cape, Coal Bay	=	6.4 feet
Ukolnoi Island	=	6.2 feet
Sand Point	=	6.6 feet

Condition of records satisfactory except as noted below:



Branch

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

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ~~8989~~.....

Records accompanying survey:

Boat sheets ~~.3~~...; sounding vols. ~~15~~...; wire drag vols.; bomb vols.; graphic recorder rolls ~~11-Envelopes~~ special reports, etc. ~~1-Descriptive report, 1-Smooth sheet, 4-Sheran Abstracts and 1-Overlay tracing to accompany Boat sheet SU-2, 5/3/55~~.....
Junction with - 454
fold in D.R.

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

Number of positions on sheet		2876	
Number of positions checked		100	
Number of positions revised		200	see Verifiers Report
Number of soundings revised (refers to depth only)		75	
Number of soundings erroneously spaced		10	
Number of signals erroneously plotted or transferred		0	
Topographic details	Time	8	
Junctions	Time	48	
Verification of soundings from graphic record	Time	4	
Verification by <i>D. L. Engle</i>	Total time	311	Date <i>June 10 1958</i>
Reviewed by <i>G. J. ...</i>	Time	40	Date <i>7-15-58</i>

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8089

FIELD NO. SU-2.5/155

Alaska, Alaska Peninsula-South Side, East of Wosnesenski Island

Surveyed May - June, 1955

Scale 1:25,000

Project No. 1344

Soundings:

808 Depth Recorders

Control:

Shoran
Sextant fixes on
shore signals

Chief of Party - F. G. Johnson

Surveyed by - P. Taylor, G. W. Moore, V. R. Sobieralski and
J. J. Dermody

Protracted by - D. E. Westbrook and C. A. J. Pauw

Soundings plotted by - D. E. Westbrook

Verified and inked by - D. R. Engle

Reviewed by - I. M. Zeskind

Date: 7/15/58

Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic surveys T-11117 and T-11118 of 1952-55.

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

2. Sounding Line Crossings

The sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated, except close inshore where the foul character of the bottom prevented development to the low-water line.

The bottom is very irregular. Submarine features such as ledges, pinnacles, shoals and ridges contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-8158 (1954) on the east, with H-6774 (1942) and H-6771 (1942) on the south and with H-8159 (1954-55) on the north. The project survey on the west, south of Wosnesenski Island has not yet been received in the Washington Office.

5. Comparison with Prior Surveys

H-3654 (Add. Wk. 1939), 1-100,000

A single line of soundings on the small-scale reconnaissance survey falls within the southeast portion of the present survey. Only minor 2-4 fms. difference in depths between the prior and present surveys were noted.

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

No other prior surveys by this Bureau have been made in this area.

6. Comparison with Chart 8700 (Latest print date 5/7/56)

A. Hydrography

The charted hydrography originates with the boat sheets of the present survey (Bps. 52747-48-49). Numerous minor differences of 0.5 to 3 fms. between the charted and present survey depths after verification and review are noted.

Specific mention is made of the following rocks awash:

- (1) The sunken rock charted in lat. $55^{\circ}09.8'$, long. $161^{\circ}18.9'$ uncovers 8' at MLLW and is shown as a reef on the present survey. ✓
- (2) The 2 rocks awash charted in lat. $55^{\circ}13.1$, long. $161^{\circ}18.8'$ originate with air-photographic survey T-8471 (1942-43) which was not field inspected. These rocks awash are considered discredited by the present survey where depths of 6.6 fms. to 11 fms. are found, and the rocks should, therefore, be deleted from the chart. ✓

B. Aids to Navigation

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

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The smooth plotting was accurately done.
- c. During verification of the present survey an investigation of the discrepancies in hydrography between the present and adjoining surveys noted in paragraph 1 of the Descriptive Report indicated that shoran positioning was in error an average of about 60 meters in a northwesterly direction. Because this slight displacement of the hydrography was generally of little cartographic value, it was deemed advisable to change only the shoran positioning on the present survey in the junctional areas, over shoals and adjacent areas, and in the vicinity of topographic features. The hydrography was accordingly shifted an average of about 60 meters in an east-southeastwardly direction in the above-mentioned areas.

The discrepancies are considered to be the result of inadequate shoran calibration tests for the present survey. The changes in the position of sections of lines are in harmony with shoran corrections determined during the 1955 season supplemented by shoran distance corrections computed in accordance with values given in Hydrographic Instruction No. 10 (Revised) dated 13 May 1957, and simultaneous visual fix-shoran comparisons where these were available.


8. Compliance with Project Instructions

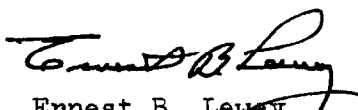
The survey adequately complies with the Project Instructions.

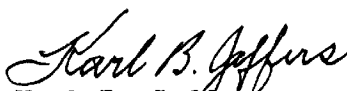
9. Additional Field Work Recommended

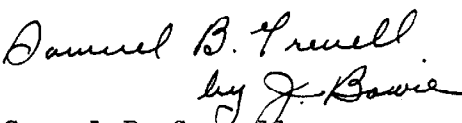
The survey is considered basic and no additional field work is recommended.

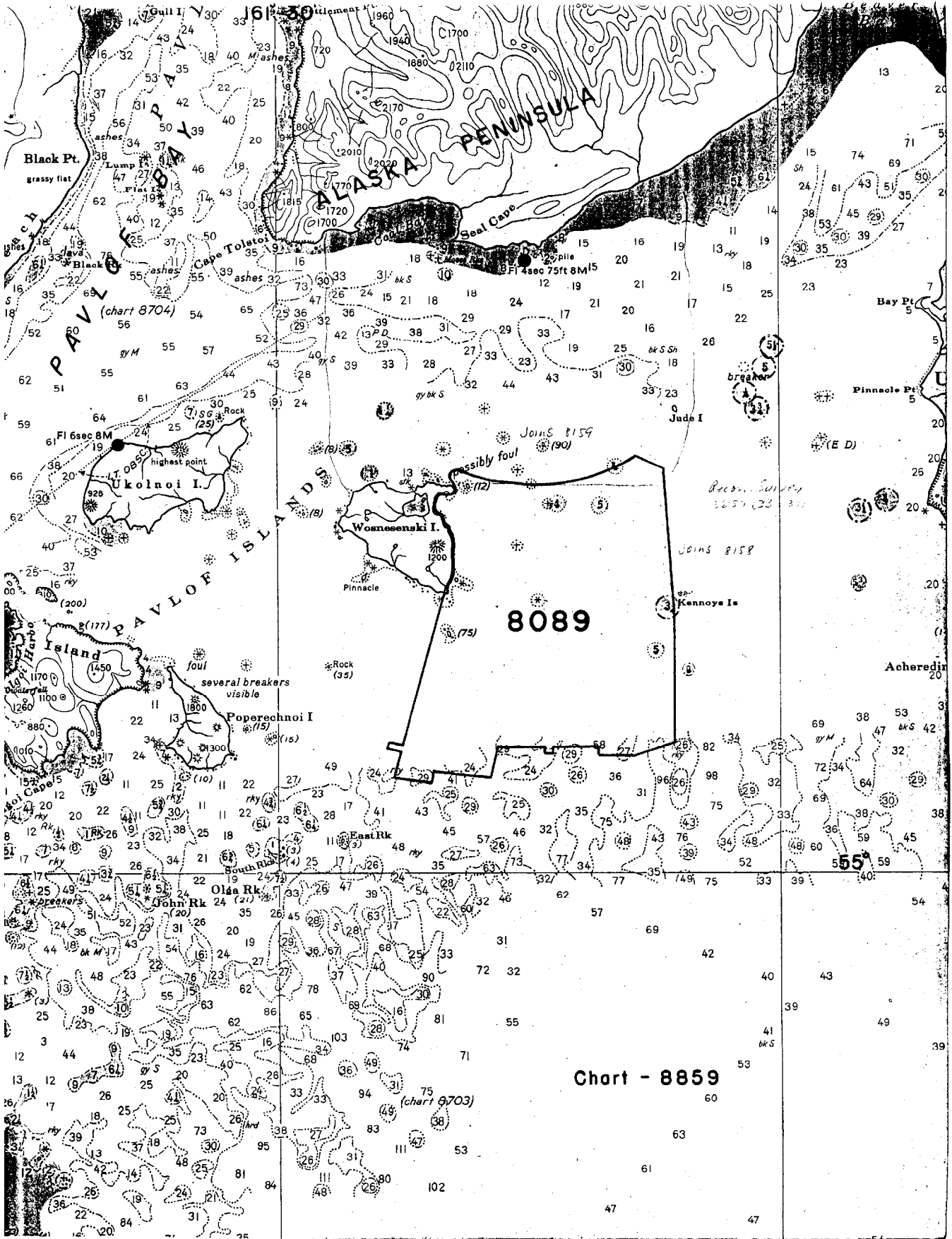
Examined and approved:


Max G. Ricketts
Chief, Nautical Chart Branch


Ernest B. Lewey
Chief, Division of Charts


Karl B. Jeffers
Chief, Hydrography Branch


Samuel B. Grenell
Chief, Division of Coastal Surveys



8089

Chart - 8859

Black Pt.

ALASKA PENINSULA

PAVLOF ISLANDS

ALASKA

Woonooski I.

Poperechnoi I.

Olga Rk.

John Rk.

(chart 8703)

JOINS 8159

Kennoys Is.

Chart - 8859

Chart - 8859

Acheredin

55

39

47

47

NAUTICAL CHARTS BRANCH

SURVEY NO. 8089 (1955)

Record of Application to Charts *Review 7-15-58*

DATE	CHART	CARTOGRAPHER	REMARKS
<i>Oct '58</i>	<i>8704</i>	<i>Nichols</i>	Before After Verification and Review <i>Complete application</i>
<i>16 June 60</i>	<i>8859</i>	<i>Nichols</i>	Before After Verification and Review <i>Through Chart 8704</i>
<i>30 Dec 60</i>	<i>880v</i>	<i>do</i>	Before After Verification and Review <i>Thru 8859</i>
<i>3 June 61</i>	<i>930v</i>	<i>do</i>	Before After Verification and Review <i>Thru 880v</i>
<i>15 FEB 63</i>	<i>8700</i>	<i>And Bravard</i>	Before After Verification and Review <i>Partly applied</i>
<i>4-16-63</i>	<i>"</i>	<i>R.E. Elkins</i>	<i>revised only isolated edge seas than 10 fm</i> <i>to agree with 8704; they revised Oct 58.</i>
			Before After Verification and Review
<i>2-8-66</i>	<i>8703</i>	<i>Gregory</i>	Before After Verification and Review <i>Comp appl.</i> <i>Thru chart 8704 survey #7</i>
			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
			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
			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.