

8000

Original

Diag. Cht. Nos. 8700 & 8859

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

1953 Field Work

DESCRIPTIVE REPORT

Supplement to Report for 1952 Field Work

Type of Survey Hydrographic

Field No. SU-4252 Office No. H-8000

LOCALITY

State Alaska

General locality South Side, Alaska Peninsula

Locality Kupreanof Pt. to Korovin Island

19 52 - 53

CHIEF OF PARTY

H. J. Healy

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DATE March 24, 1954

B-1870-1 (1)

8000

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. 8000

Field No. Su. 4252

1952 Work

State Alaska

General locality South side of Alaska Peninsula

Locality Kupreanof Pt. to Korovin I.
~~South of Kupreanof Peninsula~~

Scale 1/40,000 Date of survey June-September 1953 L.M.C.

Instructions dated 8 March 1951

Vessel SURVEYOR

Chief of party J.C. Bose

Surveyed by A.N. Stewart, J.C. Bull, R.H. Tryon, D.H. Konichek

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

Fathograms scaled by R.H. Tryon, W.R. Kachel, D.L. Wheeler

Fathograms checked by R.H. Tryon, W.R. Kachel, D.L. Wheeler

Protracted by D.H. Konichek, Wm. M. Martin, L.W. Eason

Soundings penciled by D.H. Konichek, Wm. M. Martin

Soundings in fathoms ~~XXX~~ at ~~MLW~~ MLLW and are based on a velocity

REMARKS: of sound of 800 fms./sec.

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-8000

Field No. SU-4252

1953 Work

State Alaska

General locality South Side of Alaska Peninsula

Locality Kupreanof Pt. to Korovin I.
Karpa Id. to Kupreanof Peninsula

Scale 1:40,000 Date of survey June-July 1953

Instructions dated 8 March 1951

Vessel Ship SURVEYOR

Chief of party J. C. Bose - Henry J. Healy

Surveyed by J. P. Lushene

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

Fathograms scaled by D. H. Konichek and F. X. Pepper

Fathograms checked by D. H. Konichek and F. X. Pepper

Protracted by A. N. Stewart

Soundings penciled by A. N. Stewart

Soundings in fathoms ~~100~~ at ~~100~~ MLLW } and are based on a velocity of
sound of 800 fms./sec.

REMARKS: Covers area in which weak fixes were used in 1952. See paragraph I of 1952 Hydrographic Report for this sheet.

Sounding volumes completed. Positions and soundings plotted on an overlay, leaving plotting of 1952 work undisturbed on the original smooth sheet. OVERLAY "SPOT-checked" for accuracy of PLOT FOUND to be SATISFACTORY & Positions were "pricked" thru onto Smooth Sheet
E.E.D.

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY
H-8000 (FIELD SU-4252)

A. PROJECT.

Work was executed by authority of instructions of 8 March 1951, Supp. 17 March 1952.

B. SURVEY LIMITS AND DATES.

The approximate limits are between Lat. $55^{\circ} 18'$ and $55^{\circ} 34'$, Long. $159^{\circ} 32'$ and $160^{\circ} 06'$ except for inshore areas around Kupreanof Peninsula, Andronica Island, and Karpa Island. Work was executed June to September, 1952.

C. VESSEL AND EQUIPMENT.

The Ship SURVEYOR was used for all work. Soundings were taken with recording fathometers.

D. TIDE AND CURRENT STATIONS.

The Fox Bay portable tide gage (Lat. $55^{\circ} 37'.95$, Long. $159^{\circ} 37'.25$) and the Dent Point portable tide gage (Lat. $55^{\circ} 46'.97$, Long. $159^{\circ} 52'.78$) were used to reduce soundings. No time or height correction was applied. No current observations were made. See copy of Director's letter attached.

No tide gage was operative on 21 September 1952, on which day soundings were taken for about one hour. Tide reducers used were determined by extrapolating Fox Bay tides on 18, 19, and 20 September 1952 to arrive at the following:

<u>Gage</u>	<u>Date</u>	<u>Time</u>		<u>Height</u>	
		<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
Fox Bay	21 Sept.	13.3	19.8	7'.7	0'.3

E. SMOOTH SHEET.

The smooth sheet projection was made by hand in the Seattle Processing Office. The shoreline and topographic detail as shown was verified by the Seattle Processing Office. Shoreline and topographic details are from film positives of topographic manuscripts No. T-8833, and T-8835, supplemented where necessary by data taken from charts No. 8700 and 8859. See #1 of Review

L1952

F. CONTROL STATIONS.

Control stations were plotted using 1914 and 1946 triangulation and 1913 triangulation corrected to approximate 1927 N.A. datum. The position of station DEV, as determined by hydrographic methods using sextant cuts by the SURVEYOR in 1951, was used along with positions of stations KIN and NAC determined in the same way by the SURVEYOR in 1952. The position of marked hydrographic station SUDS 1946 was taken from film positive of topographic manuscript No. 8833 in lieu of availability of any other. See list of stations attached.

G. SHORELINE AND TOPOGRAPHY.

Inshore hydrography within the limits of the sheet was accomplished at the south end of the Kupreanof Peninsula only (See report for sheet No. 7996 (Field No. 2152)). Shoreline and topography elsewhere was not a part of this work.

H. SOUNDINGS.

Soundings were taken with 808 J type fathometer number 128S with reeds calibrated at 800 fathoms per second.

Standard methods were used to apply index, initial, phase, and tide corrections to soundings.

I. CONTROL OF HYDROGRAPHY.

Visual fix hydrography was used throughout. See page 8 (Field Work) of Season's Report, Project CS-344, J. C. Bose, Chief of Party, 1952. That portion of the work lying between Lat. $55^{\circ} 30'$ and $55^{\circ} 34'$ and Long. $159^{\circ} 46'$ and $160^{\circ} 00'$ could not be controlled as well as desired because of the way in which the sheet was laid out and the disadvantageous location of signals, located and visible, within the area of the sheet. Positions and soundings within this area were plotted by SURVEYOR personnel prior to release of the sheet to the Seattle Processing Office, so that additional work, with full 1952 data, could be done during the 1953 field season. It is planned to strengthen some of the work north of Lat. $55^{\circ} 31'$ in the 1953 season by running additional lines with stronger fixes. See list of positions attached. Visual fix control throughout the remainder of the sheet is thought to be satisfactory.

J. ADEQUACY OF SURVEY.

The survey is complete and adequate, and, except for the area covered in paragraph "I" above, supercedes prior surveys for charting purposes and complies with requirements of the Hydrographic Manual and the project instructions.

Portion of weakly controlled area resurveyed in 1953. See 7c of Review

K. CROSSLINES.

About 5 percent of the lines run were crosslines. Full data on crossings will be furnished as a supplement to this report by the Seattle Processing Office after they have completed the sheet.

L. COMPARISON WITH PRIOR SURVEYS.

Prior surveys were by Miller in 1914 (Register No. 3722) and by Denson in 1915 (Register No. 3796). These surveys are in general agreement with 1952 work but specific differences as great as 10 fathoms in 70 fathom depths and 3 fathoms in shoaler depths do occur. Prior surveys are considered to be obsolete and inadequate except for bottom characteristics and therefore individual differences are not covered in this report. It is recommended that bottom characteristics from prior surveys be retained for use in conjunction with work done in 1952.

(1915-16) (1914)
sect 5
of Review

Bottom
charac-
teristics
transferred
to present
survey

M. COMPARISON WITH CHART.

Charts No. 8700 and 8859 were compared with 1952 work and were found to be in general agreement, although chart revision is indicated.

N. DANGERS AND SHOALS.

No dangers to navigation within the area covered were found and none have previously been charted. Characteristic shoaling in the vicinity of land masses was encountered but no shoal requiring special mention was discovered.

O. COAST PILOT INFORMATION.

See, "Coast Pilot Notes, Ship SURVEYOR, 1952", for Project CS-344.

P. AIDS TO NAVIGATION: No change.

Q. LANDMARKS FOR CHARTS.

Form No. 567, under this heading, will be submitted on an area basis as a separate report; however there are no landmarks in the area covered by this sheet. Landmarks for charts are included in reports for inshore launch sheets.

R. GEOGRAPHIC NAMES.

No change. The sources for geographic names used are the topographic manuscripts and charts listed in paragraph "E" of this report. The absence of inhabitants and/or contacts with people having local knowledge made it impracticable to obtain information about names.

S. SILTED AREAS: None.

T. BY-PRODUCT INFORMATION: None.

U-Y. MISCELLANEOUS: None.

Z. TABULATION OF APPLICABLE DATA.

Fathometer Report submitted November 1952. (*See H-7999*)

Coast Pilot Notes submitted November 1952.

Season's Report, Project CS-344, submitted December 1952.

Landmarks for Charts to be submitted.

Tidal data for Fox Bay and Dent Point portable tide gages submitted November 1952.

Copy Director's letter 8 September 1952, subject "Tide Data, Alaska", attached.

List of Stations, attached.

List of Positions plotted by SURVEYOR personnel, attached.

Statistics sheet, attached.

Respectfully submitted,

D. H. Konichek
D. H. KONICHEK
Lt. Comdr., USC&GS

Approved and forwarded:

J. C. Bose
J. C. BOSE, Comdr., USC&GS
Comdg., USC&GS SURVEYOR

LIST OF POSITIONS PLOTTED BY SURVEYOR PERSONNEL (SEE I,
CONTROL OF HYDROGRAPHY, THIS REPORT).

<u>Day</u>	<u>Position No.</u>	
B	84-99	16
B	146-170	27
B	222-231	10
C	1-11	11
C	66-80	15
C	140-142	3
D	1-10	10
D	175-192	18
D	198-200	3
F	34-62	27
F	72-90	19
F	102-124	23
F	165-175	16
G	1-15	12
H	186-192	4
L	207-280	74
		(287)

C O P Y

LIST OF STATIONS
 HYDROGRAPHIC SHEET H-8000 Field SU-4252)

<u>Hydro. Name</u>	<u>Source</u>
BLUFF	BLUFF 1946.
COL	PEAK " <u>COL</u> " 1946.
DEV	Hydrographic method using sextant cuts by SURVEYOR in 1951.
FOAM	FOAM 1946.
FOR	PINNACLE #40, KARPA ID. (NIP, FOR) 1946.
HAY	HIGHEST PEAK NORTH HAYSTACK (RUB, HAY) 1913 changed to approx. 1927 datum.
KARPA	KARPA 1914.
KIN	Hydrographic method using sextant cuts by SURVEYOR in 1952.
LOW	LOW 1914.
NAC	Hydrographic method using sextant cuts by SURVEYOR in 1952.
NIT	CASTLE ROCK (NIT) 1914.
PAW	<u>PAW</u> , KARPA PINNACLE, 1914.
SUDS	Position from film positive of topo. manuscript #8833, SUDS 1946 hydrographic location.
TALL	TALL 1914.
VIN	BIG PINNACLE (VIN) 1913 changed to approx. 1927 datum.

H 8000
Su 4252

Alaska Peninsula
South of Kupreanof Peninsula.

Processing Office Notes.

(1941-46)

Smooth sheet.

The projection was made by hand on a cut sheet of D-117 paper. The shoreline of Kupreanof Peninsula is from Tn8833; Korovin and Karpa Islands are from T 8836. (1952) Andronica Island in pencil is from T 3468. GP's are from Pages 127, 128, 345, 355, 360 & 361 of Vol. V lithographed triangulation of Alaska. ODER was scaled from H 7926. For © Kin, © Nac & © Suds see H 7996, H 7999, & T 8833. (1952-53) (1952) (1941-46)

P. 1
Review

Crossings.

Good. Occasional differences of a fathom.

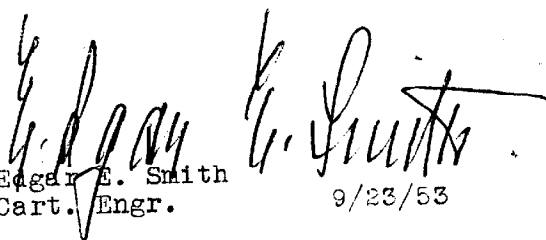
Boatsheet.

This was returned to the field party for possible additional work. See Paragraph I.

Fathograms.

In numerous places the fathograms show a harder layer under some penetrable material, probably volcanic ash. This is usually of the order of five fathoms thick. See Positions 11-20 A, 27-37 A, 75-80 B, 96-111 B and other places on C, D & F days.

Another peculiar wavy or rolling formation often appears, as at 120-136 B, 200 B, 33 C, 55 D, 80 D, 60 F and 160 H.


Edgar E. Smith
Cart. Engr. 9/23/53

Tide Note

H 8000
Su 4252

Alaska Peninsula
South of Kupreanof Peninsula.

The Fox Bay portable tide gage and the Dent Point portable tide gage were used to reduce soundings. No time or height correction was applied. See copy of Director's letter attached.

No tide gage was operative on 21 September 1952, on which day soundings were taken for about one hour. Tide reducers used were determined by interpolating Fox Bay tides on 18, 19 & 20 September 1952 to arrive at the following:-

<u>Gage</u>	<u>Date</u>	<u>Time</u>		<u>Height</u>	
		<u>High</u>	<u>Low</u>	<u>Time</u>	<u>Low</u>
Fox Bay	21 Sept.	13.3	19.8	7.7	0.3

	<u>Latitude</u>	<u>Longitude</u>
Fox Bay	55 37.95	159 37.25
Dent Point	55 46.97	159 52.78

C O P Y

Refer to No. 36-rcb

8 September 1952

AIR MAIL

To: The Commanding Officer
U.S.C. & G.S. Ship SURVEYOR
705 Federal Office Building
Seattle 4, Washington

Subject: Tide Data, Alaska

Tide data requested in your letter of 27 August 1952 are as follows:

Station	MLLW Feet 1952 staff	MTL Feet 1952 staff	Mean range Feet
Kupreanof Hbr.	4.2	8.3	5.6
Ivanof Bay	5.1	9.2	5.6
Fox Bay	3.6	7.7	5.5
Dent Point (staff #1)	2.5	6.5	5.4
(staff #2)	3.5	7.5	

In verification of the preliminary computations referred to in your letter, office computations show little difference in time or range of tide at these stations. Therefore, it will not be necessary to indicate areas to be controlled by the different gages. Tide reducers may be taken from the nearest gage. In case of missing or defective record at any station the records at the other station may be considered interchangeable without modification in either time or height.

/s/
F. L. Gallen
Acting Director

H 8000
Su 4252

Alaska Peninsula
South of Kupreanof Peninsula.

List of geographic names
penciled on smooth sheet.

Andronica Island
Boulder Bay
Bluff Point
Cape Devine
Gorman Strait
Grosvold Bay
The Haystacks
Karpa Island
Korovin Island
Kupreanof Point
Kupreanof Peninsula
Nagai Island
Scotland Point
Shumagin Islands
Unga Strait
Cape Wedge
The Whaleback

STATISTICS
 FOR HYDROGRAPHIC SURVEY H-8000
 (FIELD NO. SU-4252)
 USC&GSS SURVEYOR
 PROJECT CS-344

Day Letter	Volume Number	Unit	Date 1952	Number of Positions	Statute Miles Soundings
A	1	SURVEYOR	18 July	105	48.8
B	1 and 2	"	30 July	231	117.3
C	2 and 3	"	15 Aug	142	68.5
D	3 and 4	"	19 Aug	200	94.2
E	4	"	20 Aug	41	13.2
F	4	"	21 Aug	175	58.6
G	5 and 6	"	22 Aug	266	113.2
H	6	"	17 Sept	192	92.7
J	7	"	18 Sept	86	41.8
K	7 and 8	"	19 Sept	237	103.4
L	8 and 9	"	20 Sept	280	107.9
M	9	"	21 Sept	<u>27</u>	<u>9.7</u>
TOTAL				1982	869.3

Total area 304.0 square statute miles

DESCRIPTIVE REPORT
to Accompany

HYDROGRAPHIC SURVEY
H-8000 (Field SU-4252)

A. PROJECT

Work was executed by authority of Instructions dated 8 March 1951, and Supplementals dated 17 March 1952 and 24 February 1953.

The 1953 field work covers again an area that was done in 1952. In the 1952 field work the fixes used in this area were very weak. Fixes were stronger in 1953 because of additional signals being available, and the soundings obtained may be used to swing parts of the 1952 sounding lines into better position.

B. SURVEY LIMITS AND DATES

The general limits are between Lat. $55^{\circ} 30'$, and Long. $159^{\circ} 45'$ and $160^{\circ} 00'$, with an additional area westward to Long. $160^{\circ} 09'$ about 2 miles off the north shore of Karpa Id. The work was done between 23 June and 20 July.

C. VESSEL AND EQUIPMENT

The Ship SURVEYOR was used for all work. The soundings were taken with Model 808 recording fathometer.

D. TIDE AND CURRENT STATIONS

The portable tide gage in operation at Sand Point (Lat. $55^{\circ} 20.2''$, Long. $160^{\circ} 30.1'$) was used, without correction for time or height, for the reduction of soundings.

The similarity between the gage at Sand Point and that at Fox Bay used in 1952 may be seen from the attached copies of Director's letters dated 8 September 1952, 26 August 1953, and 18 September 1953.

E. SMOOTH SHEET

The 1952 smooth sheet was made by hand in the Seattle Processing Office. It remains unchanged in all respects except for the addition of a few signals. The 1953 hydrography ~~is~~ plotted on an overlay to this sheet. Shoreline and topographic details were taken from film positives of photo-topo manuscripts No. T-8833 and T-8463, supplemented where necessary by data from charts No. 8700 and 8859. *was added to the smooth sheet.*

F. CONTROL STATIONS

Refer to this paragraph in 1952 Hydrograph Report for this sheet. All signals used in 1952 remain unchanged. See list of additional 1953 signals attached to this report and in the front of sounding Vol. #10. ✓

Note the following concerning 1953 signals:

NOR: Hydrographic station computed from sextant angles. The position is Lat. $55^{\circ} 32' 42'' .388$; Long. $160^{\circ} 21' 32'' .137$. The computations will be submitted with the report on SU-2253. (H-8046)

RUM: This is photo station No. 3643 taken from preliminary photo-topo manuscript T-8836. This manuscript is being radial plotted again, and the position of RUM should be verified from the new plot when it is available. (verified on T-8836 (1952))

BUC: Temporarily a hydrographic station, located by sextant cuts recorded in Vol. #10 of this sheet and in Vol. #5 of sheet SU-2253. This station was identified on photographs and a photo-topo position will become available when the new plot of T-8836 is made.

BOI: This is to be a photo-topo station when the new plot of T-8836 is made. For temporary use the field radial plotted position was accepted.

LIZ: This is to be a photo-topo station when the new plot of T-8836 is made. For temporary use the field radial plotted position was accepted.

The last three of the above signals were used on only one or two positions, so that a shift in their locations will not greatly affect the hydrography plotted on the overlay. RUM was used to a greater extent, but should not shift appreciably. The position given for NOR is not subject to change. Some signals have been left in pencil on smooth sheet because of the possibility the positions may be shifted.

G. SHORELINE AND TOPOGRAPHY

See paragraph E for source of details now on smooth sheet. Newer data for Korovin and Karpa Ids. will be available when the new radial plot of T-8836 is complete. (1952)

H. SOUNDINGS

Soundings were taken with 808 J type fathometer No. 128 S, with reeds calibrated at 800 fms. per second. This same fathometer was used in the same area in 1952. Standard methods were used to apply index, initial, phase, and tide corrections to soundings. See 1953 Fathometer Report submitted 15 December 1953, and paragraph K of this report. With H-8045

I. CONTROL OF HYDROGRAPHY

Visual fix hydrography was used throughout, fixes in the area covered being much strengthened by the use of signals not available during 1952. See paragraph F in this report for notes concerning these signals.

J. ADEQUACY OF SURVEY

This survey is complete and adequate within area that was covered. Between Long. 159° 47' and 160° 00' the new work does not extend as far northward, by about one mile, as that done during 1952. The new work adequately joins, but generally does not overlap, the south edge of sheet H-7999 done in 1952. Junctions with other 1951 and 1952 surveys are unchanged.

No bottom characteristics were obtained on this sheet during 1953. Those from prior surveys should be retained.

Note the 80 fathom sounding between positions 62 and 63 N. This is 10 or more fathoms shoaler than surrounding depths, but does not constitute a danger and full development was not considered warranted.

Lat 55° 30.64', Long 159° 53.84'

K. CROSS LINES

Within the work done entirely in 1953, all line crossings are very satisfactory.

Crossings of 1953 lines with those of 1952 give some cause for concern. There are a sufficient number of these, particularly in the eastern half of the area where lines are more widely spaced, and north of Karpa Island, in relatively even bottom and where any probable shift in 1952 positions would not cause change in results, to indicate that depths obtained in 1953 are about 1 fathom greater than those of 1952.

See #7 of Review

Fathometer Reports for the two years have been examined again for possible changes in the fathometer corrections used. There was not sufficient data recorded for 1952 upon which to base any change in the corrections for that year. For 1953, using phase comparisons only during the period of this survey, corrections to the A scale would be unchanged, corrections to the B scale would change from -0.2 to plus 0.4 fathoms, and corrections to the C scale would change from plus 0.2 to plus 0.4 fathoms. Inasmuch as the crossings under consideration were in depths where the C scale was used, there would be but little improvement if the fathometer corrections were changed.

See #7 of Review

There is an abnormally large crossing of about 3-1/2 fathoms in Lat. 55° 33.0', Long. 159° 51.0', and another in the 1951² work in Lat. 55° 31.5', Long. 159° 51.1'. These indicate the possibility that 1951² positions 158 B 164 B should be shifted about 1/4 inch to the westward.

Positions corrected weak fixes.

L. COMPARISON WITH PRIOR SURVEYS

See corresponding paragraph in 1952 report for this sheet.

With reference to the area of closely spaced diagonal sounding lines between Latitudes 55° 30' and 55° 33', and Longitudes 159° 54' and 160° 00', some shifting of the 1952 sounding lines is indicated by a comparison of soundings obtained during the two years. A close examination indicates that 1952 positions in approximately Latitude 55° 30' should be held fixed, and the northern ends of the lines should be shifted. At the northeast corner it

See #7 of Review

appears the shift should be on the average about 1/4 inch towards the WSW, the direction changing with westward progress until at the northwest corner the shift is about the same distance but in a SSW direction. Whether or not the fixes will permit this shift is uncertain since 1952 records are not at hand, but as these fixes were on swingers it is believed possible that the shift can be made.

M. COMPARISON WITH CHART. See 1952 report for this sheet.

N. DANGERS AND SHOALS

No dangers were found.

The 34 fathom sounding between positions 77 F and 78 F, 1952 field work, was not searched for or verified in 1953. It is believed the position of this sounding should be moved somewhat less than 1/4 inch to the SW, in accordance with paragraph L. *5 dg. line adjusted. 34 fm sdg. in agreement with adjacent depths obtained in 1953.*

Note the 80 fathom sounding mentioned at the end of paragraph J.

O. COAST PILOT INFORMATION

See Coast Pilot Notes, Ship SURVEYOR, 1953, submitted 25 November 1953.

P. AIDS TO NAVIGATION. No change.

Q. LANDMARKS FOR CHARTS

See Form No. 567 submitted 20 November 1953.

R. GEOGRAPHIC NAMES. No change.

S - Y. None

Z. TABULATION OF APPLICABLE DATA

2 Sounding Volumes, #10, 11.

1 Boat Sheet, 1953 work on overlay. A bromide copy of 1952 boat sheet was used as boat sheet on N and P days, but was so badly distorted that it is not of much use.

4 Fathograms.

Fathometer Report submitted 15 December 1953.

Season's Report submitted 10 December 1953.

Landmarks for Charts submitted 20 November 1953.

Coast Pilot Notes submitted 25 November 1953.

with H-8045

Tidal Data for Sand Point submitted throughout field season, final data on 12 October 1953. Also Director's letters, on results from this and other stations, dated 8 September 1952, 26 August 1953, and 18 September 1953.

List of Stations, attached, and computations referred to in paragraph F.
Statistics Sheet, attached.

Photo-topo manuscript T-8836, preliminary.

1 Photogrammetric Report submitted 24 December 1953.

Respectfully submitted,

A. Newton Stewart
A. Newton Stewart
Commander, USC&GS

Forwarded:

Henry J. Healy
Henry J. Healy
Commander, USC&GS
Comdg., USC&GSS SURVEYOR

COPY

36-rcb

AIR MAIL

To: The Commanding Officer
U.S.C. & G.S. Ship SURVEYOR
705 Federal Office Building
Seattle 4, Washington

Subject: Tide Data, Alaska

Tide data requested in your letter of 27 August 1952 are as follows:

Station	MLLW Feet 1952 staff	MTL Feet 1952 staff	Mean range Feet
Kupreanof Hbr.	4.2	8.3	5.6
Ivanof Bay	5.1	9.2	5.6
Fox Bay	3.6	7.7	5.5
Dent Point	2.5	6.5	5.4

In verification of the preliminary computations referred to in your letter, office computations show little difference in time or range of tide at these stations. Therefore it will not be necessary to indicate areas to be controlled by the different gages. Tide reducers may be taken from the nearest gage. In case of missing or defective record at any station the records at the other stations may be considered interchangeable without modification in either time or height.

/s/ F. L. Gallen
Acting Director

COPY

36-rjb

26 August 1953

To: The Commanding Officer
U.S.C. & G.S. Ship SURVEYOR
705 Federal Office Building
Seattle 4, Washington

Subject: Tide data, Alaska

Tide data requested in your letter of 15 August
1953 are as follows:

	Albatross Anchorage	Sand Point
MLLW (on staff)	4.0 feet	4.0 feet
MPL (on staff)	8.0 "	7.9 "
Mean range	5.4 "	5.3 "
Ratio of ranges (on Womens Bay)	0.80	0.78
Difference, time of tide (on Womens Bay)	435 ^m	435 ^m

/s/ Earl O. Heaton
Acting Director

COPY:

36-rjb

18 September 1953

To: The Commanding Officer
U.S.C. & G.S. Ship SURVEYOR
705 Federal Office Bldg.
Seattle 4, Washington

Subject: Tide Data, Alaska

Enclosed for the periods listed in your letter of 10 September 1953 are hourly heights for the vicinity of Scotland Rock. These heights are based on observed tides at Womens Bay and can be used as tide reducers without further modification, necessary allowances having been made for estimated time and range differences.

Data requested in the second paragraph of your letter will require the September tide record for Womens Bay which will not be available in this office until early in October.

Information requested in the last paragraph of your letter is as follows:

	Fox Bay	Dent Point
Ratio of ranges (on Womens Bay)	0.81	0.81
Difference, time of tide (on Womens Bay)	430 ^m	430 ^m

/s/ Robert W. Knox
Acting Director

Enclosure

LIST OF STATIONS
 HYDROGRAPHIC SURVEY NO. H-8000
 (FIELD NO. SU-4252)
 USC&GSS SURVEYOR
 Project CS-344

<u>Hydro Name</u>	<u>Source</u>
(1) BLUFF	BLUFF 1946.
(2,3) BOX	Photo-topo, 1953, T-8836.
(2,3) BUC	Photo-topo, 1953, T-8836. Also sextant cuts sheets H-8000 and H-8046.
(1) COL	Peak "COL". 1946.
(1) FOR	Pinnacle #40, Karpa Id. (NIP, FOR), 1946.
(1) FOAM	FOAM 1946.
(2) GAD	Pinnacle #42, Karpa Id., 1946.
(2) GILL	GUILLEMOT 1914.
(2) KAR	Pinnacle #41, Karpa Id., 1946.
(1) KARPA	KARPA 1914.
(2,3) LIZ	Photo-topo, 1953, T-8836.
(1) LOW	LOW 1914.
(1) NAC	Hydro. sta., sextant cuts by SURVEYOR, 1952.
(1) NIT	CASTLE ROCK (NIT) 1914.
(2) NOR	Hydro. sta. computed from sextant angles, 1953. Comp. with report for H-8046. (Lat. $55^{\circ} 32'$ \nearrow 1310 μ m, Long. $160^{\circ} 21'$ \nearrow 563.5 μ m.)
(1) PAW	PAW, Karpa Pinnacle 1914; Karpa Pinnacle, 1946.
(2,3) RUM	Photo-topo, T-8836, (temporarily from advance manuscript).
(1) VIN	BIG PINNACLE (VIN) 1913, changed to approx. 1927 datum.
(1)	Signals retained from 1952 field work.
(2)	Signals added for 1953 field work.
(3)	Signals for which temporary position used in smooth plot on SURVEYOR. See comments paragraph "F" in Descriptive Report.

STATISTICS

HYDROGRAPHIC SURVEY H-8000
(FIELD NO. SU-4252)

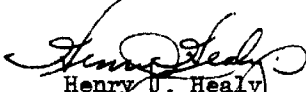
USC&GSS SURVEYOR
Project CS-344

<u>Day Letter</u>	<u>Volume Number</u>	<u>Unit</u>	<u>Date 1953</u>	<u>Number of Positions</u>	<u>Stat. Mi. Soundings</u>
N	10	SURVEYOR	23 June	83	54.7
P	10	"	25 June	16	6.9
Q	10	"	14 July	14	4.3
R	10 & 11	"	20 July	97	41.9
			Totals	210	107.8

No additional area counted in 1953.

APPROVAL SHEET

The additional work on this sheet was accomplished under the direction of CDR. J. C. Bose, who examined the sheet after the inking of soundings on boat sheet following each day's work. The additional work was considered adequate.


Henry J. Healy
Commander, USC&GS
Comdg., USC&GSS SURVEYOR

GEOGRAPHIC NAMES

Survey No. H-8000

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
<u>Alaska</u>												1
<u>Alaska Peninsula</u>			} for title								B.G.N.	2
												3
<u>Kupreanof Peninsula</u>												4
<u>Bluff Pt.</u>												5
<u>Cape Wedge</u>												6
<u>Andronica Island</u>												7
<u>Gorman Strait</u>												8
<u>Korovin Island</u>												9
<u>Cape Devine</u>												10
<u>Scotland Point</u>												11
<u>Karpa Island</u>											B.G.N.	12
												13
												14
												15
												16
												17
<u>Kupreanof Pt</u>											B.G.N.	18
<u>Boulder Bay</u>												19
<u>Nagai Island</u>											B.G.N.	20
<u>The Haystacks</u>												21
<u>The Whaldercy</u>												22
<u>Shumagin Islands</u>											B.G.N.	23
<u>Grosvold Bay</u>												24
<u>Unge Strait</u>												25
<u>Fox Bay</u>												26
<u>Dent Point</u>			} tide stations, of sheet									27

Above names are believed to be adequate. 10-30-53 - Heck

Other names in pencil are approved, if it is desired to apply them
 POPOF Island
 Guillemot I

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8000.....

Records accompanying survey:

Boat sheets; sounding vols. 2.....; wire drag vols.;
 bomb vols.; graphic recorder rolls 2. Env.; 1 Env. (1953)
 special reports, etc. 1 Descriptive Report; 1 Smooth Sheet;

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

Number of positions on sheet	210 (1953)
Number of positions checked	1982 (1952)
Number of positions revised	..96 (includes both years)
Number of soundings revised (refers to depth only)	..55 (1952 work satisfactory)
Number of soundings erroneously spaced	..0
Number of signals erroneously plotted or transferred	..0
Topographic details	Time ..8 hrs.
Junctions	Time ..16 hrs.
Verification of soundings from graphic record	Time ..9 hrs.

Verification by *Ernest E. Thomas*..... Total time *171*..... Date *Mar 3, 1955*

Reviewed by *Lu Jaskind*..... Time *48*..... Date *May 12, 1955*

* Majority of these corrections were of minor nature.
 .5 fathom rescanning to improve crossings
 .5 fathom correction to Bar C phase, where applicable, if it would improve crossing. (Verfior localized the phases, rather than accept the meaned value.)

EHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

4 November 1953

Division of Charts: R. H. Carstens

Plane of reference approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 8000

Locality Alaska Peninsula, Alaska

Chief of Party: J. C. Bose in 1952

Plane of reference is mean lower low water, reading

2.5 ft. on tide staff at Dent Point

11.0 ft. below B. M. 1 (1952)

3.6 ft. on tide staff at Fox Bay

12.6 ft. below B.M. 1 (1952)

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

Dent Point = 6.8 feet

Fox Bay = 6.9 feet

Condition of records satisfactory except as noted below:

E.C. McKay
Section of Tides

Chief, Division of Tides and Currents.

TIDE NOTE FOR HYDROGRAPHIC SHEET

839

~~Division of Coastal Surveys~~

25 March 1954

Division of Charts: R. H. Carstens

Plane of reference approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 8000

Locality Alaska Peninsula, South Side

Chief of Party: J. C. Bose in 1953
Plane of reference is mean lower low water, reading
4.0 ft. on tide staff at Sand Point
18.5 ft. below B. M. 5 (1943)

Height of mean high water above plane of reference is 6.5 feet.

Condition of records satisfactory except as noted below:

E. C. McKay

Section of Tides

Chief, Division of Tides and Currents.

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8000

FIELD NO. SU-4252

Alaska, South Side Alaska Peninsula, Kupreanof Pt. to
Korovin Island

Project No. CS-344

Surveyed - June 1952 - July 1953

Scale 1:40,000

Soundings:

Control:

808 Fathometer

Sextant fixes on
shore signals

Chief of Party - J. C. Bose and H. J. Healy
Surveyed by - J. P. Lushene, A. N. Stewart, J. C. Bull
R. H. Tryon and D. H. Konichek
Protracted by - A. N. Stewart, D. H. Konichek and W. M. Martin,
L. W. Eason
Soundings plotted by - A. N. Stewart, D. H. Konichek and
W. M. Martin
Verified and inked by - E. E. Thomas
Reviewed by - I. M. Zeskind 5-12-55
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline shown on the present survey originates with
the following surveys:

<u>Area</u>	<u>Source</u>	<u>Remarks</u>
S. portion of Kupreanof Pen.	T-8833 (1941-46) (air-photo)	Reviewed
Castle Rock	T-8458 (1942) (air-photo)	Reviewed
N.W. Nagai I. (In pencil)	T-3559 (1915) (plane table)	
Karpa I.	T-8836 (1952) (air-photo)	Advance print Not reviewed

Korovin I.	T-8836 (1952) (air-photo)	Advance print, Not reviewed
Andronica I. N. Half	T-11112 (1952) (Air-photo)	Advance print, Not reviewed
S. Half (pencil)	T-3468 (1914) (plane table)	
Popof I. E. of long. 160°20'	T-11112 (1952) (air-photo)	Advance print, Not reviewed
W. of long. 160°20'	T-11111 (1952) (air-photo)	Advance print, Not reviewed
Guillemot I.	T-8838 (1942) (air-photo)	Not reviewed

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

2. Sounding Line Crossings

Depths at crossings are in adequate agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated.

The bottom is fairly irregular except in the deeper basin area. Submarine features such as troughs, ridges, shoals and deeps contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-7996 (1952-53) south of Kupreanof Peninsula and H-7927 (1951) on the east. H-7999 (1952), which has only received a preliminary verification joins the present survey on the north. When the verification of this latter survey has been completed, a junction will be effected with the present survey. Project surveys on the west and south have not yet been received in the Washington Office.

5. Comparison with Prior Surveys

- A. H-3713 (1914), 1:20,000
H-3722 (1914), 1:100,000
H-3796 (1915), 1:100,000

These surveys fall within the area of the present survey. Depths on the prior surveys were obtained principally by

pressure tubes and occasionally by lead line. A comparison between the prior and present surveys reveals differences of 2-3 fms. in depths less than 40 fms. and as much as 10 fms. in greater depths, as for example in lat. $55^{\circ}26.36'$, long. $159^{\circ}55.20'$, where a prior depth of 83 fms. falls in present depths of 73-74 fms. These differences in depths are attributed to the inherent inaccuracies in the pressure tube method of obtaining soundings.

Bottom characteristics from the prior surveys have been carried forward to the present survey. With the addition of these bottom characteristics, the present survey is adequate to supersede the prior surveys within the common area.

B. H-6880 (1943), 1:120,000

Only a single line of sparsely spaced soundings on the prior survey beginning about 10 miles northeast of Andronica Island and running thence in a northeasterly direction for a distance of about 10 miles, falls within the limits of the present survey. A comparison between the prior and present surveys reveals only minor differences of 2-3 fms. in depths of 80-90 fms.

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

6. Comparison with Chart 8700 (Latest print date 6-28-54)
Chart 8859 (Latest print date 5-31-54)

A. Hydrography

The charted hydrography originates principally with the present survey prior to verification and review and the prior surveys previously discussed which need no further consideration. Only minor differences of about 2-fms. between the charted and present survey depths are noted except for the following:

(1) The 28-fm. (Rep. sounding) charted in lat. $55^{\circ}22.9'$, long. $160^{\circ}01.5'$, from Chart Letter 431 (1950), should be disregarded. The sounding is discredited by hydrography on the present survey and should be deleted from the chart. *Jan 1/1/55*

(2) The charted depths listed below originate with prior pressure tube soundings and should be disregarded:

<u>Charted depth</u> fathoms	<u>Present depth</u> fathoms	<u>Latitude</u>	<u>Longitude</u>
29	32	55° 22.20'	160° 03.50'
35	32	55° 22.92 21.92'	159° 57.30'
32	36	55° 22.26'	159° 50.20'

The present survey supersedes the charted hydrography within the common area.

B. Aids to Navigation

There are no floating 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) In the northwest portion of the survey hydrography run in 1952 was weakly controlled. In 1953 a portion of this area was completely resurveyed and superseded the 1952 work. In the northern portion of the survey well controlled lines run in 1953 were used to adjust weakly controlled lines run during the previous year. In the southeast portion of the survey adjustment of several weakly controlled lines will be made if necessary when junctional soundings are applied.

8. Compliance with Project Instructions

The survey adequately complies with Project Instructions.

9. Additional Field Work Recommended

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

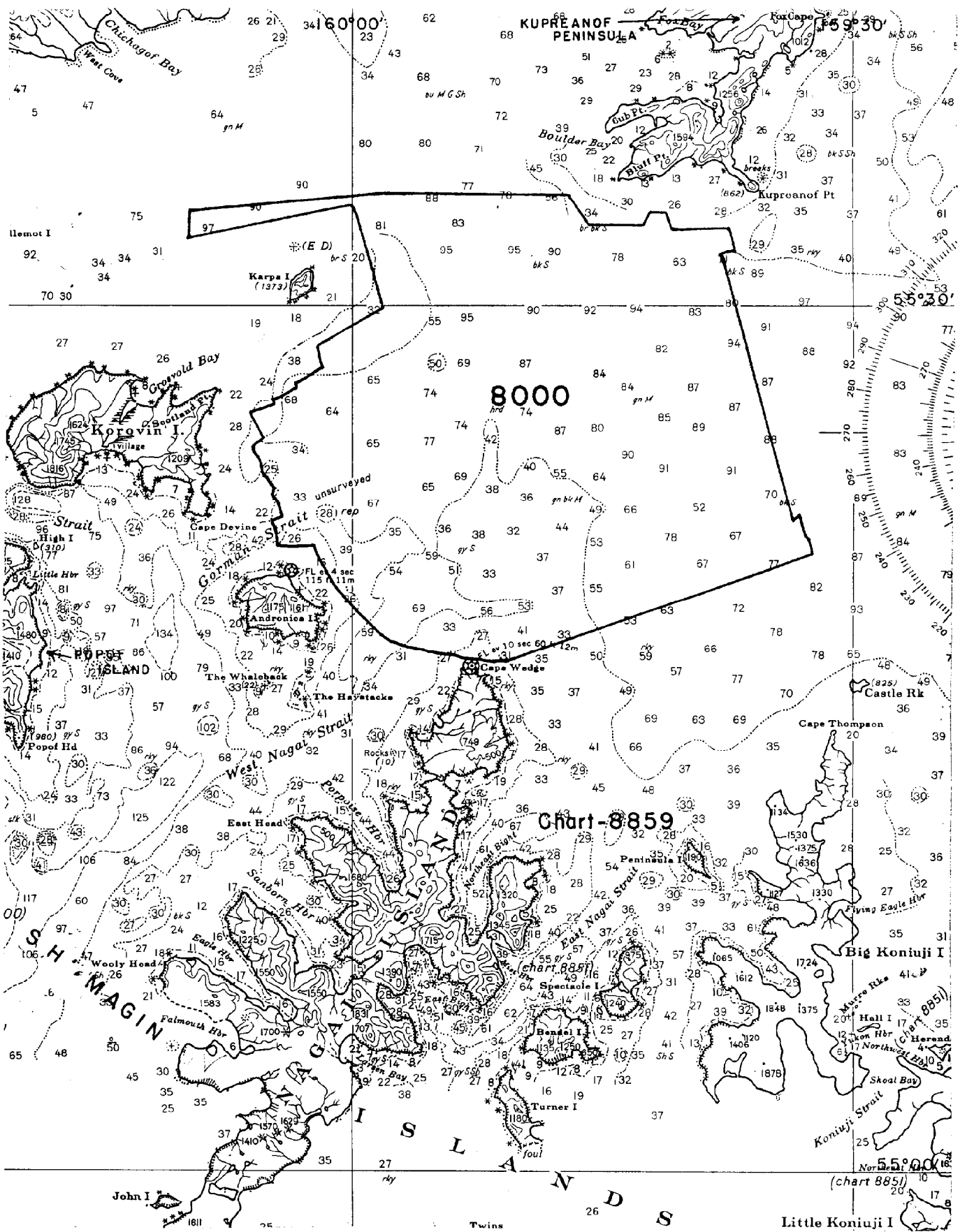
Examined and Approved:

Wallace A. Bruder
Wallace A. Bruder
Acting Chief, Nautical Chart Branch

E. R. McCarthy
E. R. McCarthy
Acting Chief, Chart Division

J. G. Bull
J. G. Bull
Chief, Hydrography Branch

Earl O. Heaton
Earl O. Heaton
Chief, Division of Coastal Surveys



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8000

1952 Work

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/2/54	8700	<i>J.A.M.</i>	Before After Verification and Review <i>Partially applied.</i>
Feb. '54	8859	L.A.M.	Before After Verification and Review
Mar. 1955	8802	G.H.F.	Before After Verification and Review <i>via ch. 8859</i>
6 July 60	8700	<i>Wichols</i>	Before After Verification and Review <i>Complete</i>
"	8859	"	Before After Verification and Review <i>Complete</i> <i>Thru 8700 - in part -</i>
30 Dec 60	8802	do	Before After Verification and Review <i>Thru 8859</i>
3 Jan 61	9302	do	Before After Verification and Review <i>Thru 8802</i>
12/2/54	8859	Wichols	Before After Verification and Review <i>Partially</i> chart 8859
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

NAUTICAL CHARTS BRANCH

SURVEY NO. H. 8000 Add'l. Work 1953

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3/30/54	8700	J. M. Albert	Before After Verification and Review <i>add 80.5 miles east of Karpa I.</i>
"	8859	"	Before After Verification and Review <i>no correction</i>
Mar. 1955	8802	G.H.E.	Before After Verification and Review <i>via cht 8859</i>
"/9/55	8700	J. M. Gunn	Before After Verification and Review <i>Part. applied -</i> <i>Error (28) Rep. at 55° 22' 9" / 160° 01' 5"</i>
	8859	Nichols	Before After Verification and Review
8/5/73	8708	James Graham	Before After Verification and Review <i>Fully applied</i> <i>hydro survey to new chart 8708 after final inspection</i>
			Before After Verification and Review
4/4/78	16553	Martel/Van Zant	Before After Verification and Review <i>Revised thru</i> <i>chart 16556</i>
		"	Before After Verification and Review
			Before After Verification and Review

M-2160-1

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.