7825

Diag. Cht. No. 8863-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. SU-025151 Office No. H-7825

LOCALITY

State ALASKA- ALEUTIAN ISLANDS

General locality ADAK ISLAND

Locality SWEEPER COVE

1945

CHIEF OF PARTY

G. E. Boothe

LIBRARY & ARCHIVES

DATE MARCH 12, 1952

B-1870-1 (1)

7825

Form 537
(Ed. Nov. 1941)

REG. NO.

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.

H-7825

REGISTER No. H-7825

Field No. SU-025151

State ALASKA - ALEUTIAN ISLANDS

General locality ~~ALEUTIAN ISLANDS~~ ADAK ISLAND

Locality SWEEPER COVE, ~~ADAK ISLAND~~

Scale 1:2,500 Date of survey JULY 1951

Instructions dated 8 March 1951, supplemental 19 June 1951

Vessel USC&GSS SURVEYOR

Chief of party Glendon E. Boothe

Surveyed by Edgar F. Hicks, Jr.

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

Protracted by William R. Kachel

Soundings penciled by William R. Kachel

Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW
(and are true depths)

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 428075

765

Descriptive Report to Accompany Hydrographic

Survey H-7825 (Field No. SU-025151)

SWEEPER COVE, ADAK ISLAND

ALEUTIAN ISLANDS, ALASKA

1951

Scale: 1:2,500
USC&GSS SURVEYOR
Glendon E. Boothe, Chief of Party
Edgar F. Hicks, Jr., In Charge

A. PROJECT:

Project No. CS-344 dated 8 March 1951 supplemented by letter from the Director dated 19 June 1951.

B. SURVEY LIMITS AND DATES:

The survey was made in Sweeper Cove on the east side of Adak Island in the Aleutian Island group, Alaska. Field work was begun on 6 July 1951 and ended on 28 July 1951. This survey makes a junction with prior surveys No. H-6915, 1943, scale 1:5,000 and H-7084, 1945, scale 1:5,000.

The work progressed rather slowly because a navy launch with navy coxswain and engineer had to be used. The launch was not particularly suited for survey purposes and the coxswain and engineer were not experienced.

C. VESSEL AND EQUIPMENT:

A fifty foot navy launch was used. It was a converted Navy liberty boat. A very small wheel made it difficult to back down rapidly and the high free board and large pilot house caused difficulty in holding courses in even a moderate breeze. Very little alteration was needed to accomodate the fathometer and the plotter. The launch was operated from a shore base, a pier in the small boat harbor at the southwest corner of Sweeper Cove.

A type 808J fathometer No. 137-Sp with reeds calibrated for a velocity of 800 Fms/Sec. was used for most of the sounding. The soundings along the piers and the tag line surveys were taken with a standard lead line and twelve pound lead.

D. TIDE AND CURRENT STATIONS:

A tide staff was installed in the small boat harbor at the southwest corner of Sweeper Cove, Lat. 51 - 51.10', Long. 176 - 39.24'. Readings were taken every half hour during sounding operations. No time or height corrections were applied.

The standard tide gage at Sweeper Cove was found to be inoperative due to silting action and was moved to a new location on the north side of Pier Seven after sounding operations were completed. (See Letter to the Director of 3 August 1951.)

No current stations were occupied.

E. SMOOTH SHEET:

The smooth sheet projection was made at the Seattle Processing Office by hand.

The shoreline was transferred by using the Saltzman Projector.

The transfer of shoreline and topographic details has been verified in accordance with paragraph 757 of the Hydrographic Manual.

F. CONTROL STATIONS:

The geographic positions of the triangulation stations used for control were taken from Folio V, page 172, computation G 6831 and Folio V, page 283, computation G 6991.

The topographic stations were located by planetable methods in July 1951, Glendon E. Boothe, Chief of Party. (G.C. sheet to be destroyed)

G. SHORELINE AND TOPOGRAPHY:

The portion of the shoreline shown on the smooth sheet as a solid pencil line was located by planetable at the same time the hydrographic signals were being located. This portion of the shoreline was transferred from the topographic sheet to the smooth sheet by using the Saltzman projector. The remaining shoreline shown as a dashed pencil line on the smooth sheet was transferred from a photostat of survey No. H-7058, 1945 by using the Saltzman projector. The shoreline as determined by this survey agreed very well with the shoreline as determined on survey No. H-7058. Review, par. 1

The shoreline and pier outlines were left in pencil on the smooth sheet in order not to interfere with the soundings taken along the face of the piers.

H. SOUNDINGS:

The majority of the depths were measured with an 808J type fathometer No. 137Sp with reeds calibrated at 800 Fms./Sec. The only corrections applied to these soundings were tide reducers and bar check corrections.

The soundings alongside the piers and for the tag line surveys were taken with a standard leadline and twelve pound lead. The lead line was tested before and after use and found to be accurate. Tide reducers were the only corrections applied to these soundings.

I. CONTROL OF HYDROGRAPHY:

All the positions of this survey were determined by three point sextant fixes except the tag line surveys West of pier five, north of pier

seven, and in the small boat harbor in the southwest corner of Sweeper Cove. Signals used for the three point fixes were triangulation stations and hydrographic signals located by planetable survey. A sufficient number of triangulation stations were recovered so that additional triangulation was not necessary.

The tag line surveys were made with a 3/8 inch manila line bound to a 1/4 inch steel cable and marked every 10 meters along its length. This line was tested for accuracy while in use. The tagline method of sounding proved to be very time consuming. The launch and fathometer were used for the remainder of the development around the dock area and it proved very satisfactory and much faster. The spacing of the lines was determined by measurements along a line determined by sextant fixes. The soundings alongside the piers in the small boat harbor were spaced by measuring intervals with a steel tape between signals that had been located by plane-table.

J. ADEQUACY OF SURVEY:

The survey is complete and adequate to supercede prior surveys for charting.

After consulting with the Commanding Officer of the Naval Base it was deemed unnecessary to further develop the shoal just east of pier two, Lat. 51 - 51.74', Long. 176 - 37.80'. This pier is condemned and has not been used for some time.

The survey was carried to a junction with previous surveys on the South and it was not deemed necessary to resurvey this area.

The junctions with adjoining surveys are satisfactory and the depth curves can be adequately drawn.

K. CROSSLINES:

About six per cent of the lines run are crosslines. The crossings are for the most part less than five percent in error.

L. COMPARISON WITH PRIOR SURVEYS: *See Review, par. 5*

The survey is in general agreement with prior surveys No. H-6915, 1943, Scale 1:5,000 and H-7084, 1945, Scale 1;5,000.

Shoal areas as listed in section N of this report were discovered and investigated. Also some silting in the small boat harbor. These changes from prior surveys were probably due to current action and drainage from the air field thru Sweeper Creek and outlets in the small boat harbor.

The features and depths given in prior surveys were found to be the same or shoaler in this survey.

In general the depths agree very well with prior surveys except where the above mentioned shoaling has ocurred.

There is no known survey by the U.S. Corp of Engineers for this area.

M. COMPARISON WITH CHART:

A comparison with chart No. USC&GS 9119 scale 1:10,000, print date 12/4/50, hand corrected through 10 September 1951 was made. This chart and the new survey agree very well except as noted in section N of this report.

N. DANGERS AND SHOALS:

Following is a tabulation of newly found dangers and shoals. A preliminary report on these was submitted in a letter to the Director dated 6 August 1951. (C.L. 526, 1951)

Position No.	Sounding	Latitude	Longitude
38f	5.5 fms.	51°-51'	plus 1270m
		176°-38'	plus 183m
37f plus 8 sec.	5.5 fms.	51°-51'	plus 1256m
		176°-38'	plus 247m
8j	5.5 fms.	51°-51'	plus 1252m
		176°-38'	plus 404m
83d	5.7 fms.	51°-51'	plus 1244m
		176°-38'	plus 430m
26a	8.6 fms.	51°-51'	plus 1120m
		176°-38'	plus 21m
41a plus 15 sec.	7.7 fms.	51°-51'	plus 1072m
		176°-38'	plus 262m

Soundings as shoal as 5 fms. were found off the southern face of pier seven. Dredging operations on these areas were being conducted at the time of this survey.

The shoal east of pier two, Lat. 51-51.74', Long. 176-37.80' was brought to the attention of the Commanding Officer as explained in section J. of this report. The least depth of 3.5 fms. shown on Chart No. 9119 and on survey No. H-7084, 1945 was not found in this survey. A least depth of 4.0 fms. was found. Since a complete development of this shoal was not made as explained in section J. of this report it is recommended that the previous depth of 3.5 fms. be retained.

All charted dangers, shoals, and bare rocks were found as charted or shoaler depths were found except for those listed in Sections L, M & N of this report.

O. COAST PILOT INFORMATION:

The following change in the Coast Pilot for Sweeper Cove, Adak Island, Aleutian Islands is recommended.

Page 462 - Line 45; read: Depths range from 7 to 24 fathoms, over a bottom of fine black sand and mud.

P. AIDS TO NAVIGATION:

No change.

Q. LANDMARKS FOR CHARTS:

No change.

R. GEOGRAPHIC NAMES:

No change.

S. SILTED AREAS:

No silted areas were detected by the use of an echo-sounding instrument.

T. BY-PRODUCT INFORMATION:

None.

U-Y. MISCELLANEOUS:

None

Z. TABULATION OF APPLICABLE DATA:

No data connected with this survey that is not incorporated in this report has previously been transmitted to the Washington Office.

Respectfully submitted,

William R. Kachel

William R. Kachel
Ensign, USC&GS

STATISTICS FOR HYDROGRAPHIC SURVEY H-7825 (1951)

USC&GSS SURVEYOR

CS-344

DAY LETTER	VOLUME NUMBER	DATE	NUMBER OF HANDLEAD SOUNDINGS	NUMBER OF POSITIONS	STATUTE MILES SOUNDING
a	1	12 July 1951		72	5.4
b	1	13 July 1951		66	4.1
c	1	14 July 1951		40	4.7
d	1	16 July 1951		114	8.6
e	2	17 July 1951	325	34	1.6
f	2	18 July 1951	65	124	5.5
g	2	19 July 1951		170	4.8
h	3	20 July 1951		196	8.0
j	3	21 July 1951		88	2.8
k	3	23 July 1951	68	52	2.1
l	3	24 July 1951	62	33	1.0
m	3	25 July 1951		5	
			520	994	48.6

TIDE NOTE

A tide staff was installed in the small boat harbor at the southwest corner of Sweeper Cove, Latitude 51°-51.10', Longitude 176°-39.24'.

MLLW on the tide staff was 3.24 feet. A value of 3.2 feet was used in reducing the soundings.

No corrections for differences in time or height were applied to the observed tides.

TIDE STAFF READINGS

12 July 1951

Time	Reading (ft.)
1330	4.8
1400	4.85
1430	4.8
1500	4.8
1530	4.9
1600	5.0
1630	5.2
1700	5.3

13 July 1951

Time	Reading (ft.)
0830	3.7
0900	4.0
0930	4.3
1000	4.4
1030	4.6
1100	4.8
1130	4.8
1200	5.0
1300	5.3
1330	5.3
1400	5.4
1430	5.4

14 July 1951

Time	Reading (ft.)
0830	3.5
0900	3.7
0930	4.1
1000	4.2
1030	4.5
1100	4.8
1130	4.9
1200	5.3

16 July 1951

Time	Reading (ft.)
0830	1.6
0900	1.8
0930	1.9
1000	2.1
1030	2.5
1100	2.8
1130	3.3
1200	3.4
1315	4.5
1330	4.6
1400	5.0
1430	5.2
1500	5.6
1600	5.9
1630	6.1
1700	6.3

17 July 1951

Time	Reading (ft.)
0830	1.4
0900	1.5
0930	1.5
1000	1.6
1030	1.7
1100	2.2
1130	2.3
1200	2.8
1317	3.9
1330	3.9
1400	4.3
1430	4.7
1500	5.0
1530	5.3
1600	5.6
1630	5.9
1700	6.0

18 July 1951

Time	Reading (ft.)
0800	2.0
0830	1.7
0900	1.7
0930	1.5
1000	1.5
1030	1.6
1100	1.8
1130	2.0
1200	2.4
1230	2.8
1600	5.5
1630	5.7

19 July 1951

Time	Reading (ft.)
0800	2.85
0830	2.5
0900	2.1
0930	1.8
1000	1.6
1030	1.6
1100	1.55
1130	1.6
1200	1.9
1315	2.5
1330	2.8
1400	3.1
1430	3.6
1500	4.0
1530	4.4
1600	4.8
1630	5.2
1655	5.35

20 July 1951

Time	Reading (ft.)
0800	3.7
0830	3.5
0900	2.9
0930	2.5
1000	2.3
1030	2.1
1100	1.9
1130	1.9
1200	2.0
1300	2.4
1330	2.5
1400	2.9
1430	3.3
1500	3.7
1530	4.2
1600	4.6
1630	4.9

21 July 1951

Time	Reading (ft.)
0830	4.4
0900	4.1
0930	3.7
1000	3.2
1030	3.0
1100	2.6
1130	2.5
1200	2.5

23 July 1951

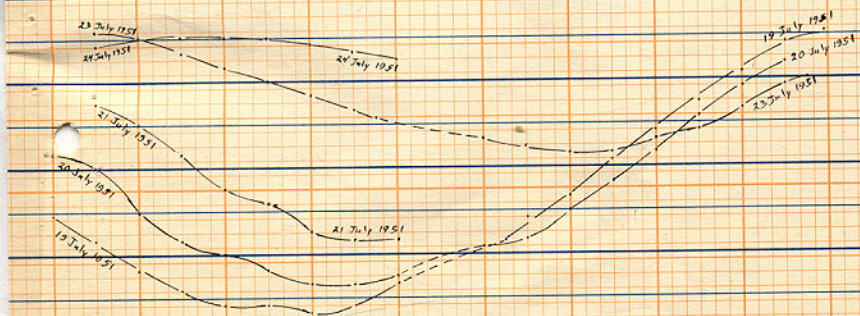
Time	Reading (ft.)
0830	5.4
0900	5.3
0930	5.1
1000	4.9
1030	4.7
1100	4.5
1130	4.3
1145	4.2
1300	3.9
1330	3.8
1400	3.7
1430	3.7
1500	3.9
1530	4.0
1600	4.3
1630	4.6
1645	4.7

24 July 1951

Time	Reading (ft.)
0800	5.2
0830	5.3
0900	5.3
0930	5.3
1000	5.3
1030	5.2
1100	5.1
1130	5.0

GRAPH FOR TIDE REDUCERS (FATHOMS)

SWEEPER COVE, ADAK ISLAND



TIME IN HOURS

GRAPH TO TIDE REDUCERS (FATHOMS)

SWEEPER COVE, ADAK ISLAND

Height of tide (above datum)

Tide Reducers (in fathoms)

2.8	2.8
	2.7
2.6	2.6
	2.5
2.4	2.4
	2.3
2.2	2.2
	2.1
2.0	2.0
	1.9
1.8	1.8
	1.7
1.6	1.6
	1.5
1.4	1.4
	1.3
1.2	1.2
	1.1
1.0	1.0
	.9
.8	.8
	.7
.6	.6
	.5
.4	.4
	.3
.2	.2
	.1
.0	.0
	.1
.2	.2
	.3
.4	.4
	.5

17 16 15 14 13 12 11 10 9 8 N

N 8 9 10 11 12 13 14 15 16 17

14 July 1951
13 July 1951
12 July 1951
16 July 1951
17 July 1951
15 July 1951

TIME IN HOURS

TIDE REDUCERS

Sweeper Cove, Adak

12 July 1951

Reducer	Time
0.3	1330-1700

13 July 1951

0.1	0830-0907
0.2	0908-1044
0.3	1045-1250
0.4	1251-1430

14 July 1951

0.1	0830-0930
0.2	0931-1050
0.3	1051-1200

16 July 1951

plus 0.3	0830-0851
plus 0.2	0852-1018
plus 0.1	1019-1105
0.0	1106-1202
0.1	1203-1244
0.2	1245-1336
0.3	1336-1439
0.4	1440-1600
0.5	1601-1700

17 July 1951

plus 0.3	0830-1029
plus 0.2	1030-1129
plus 0.1	1130-1205
0.0	1206-1251
0.1	1252-1343
0.2	1344-1429
0.3	1430-1529
0.4	1530-1629
0.5	1630-1700

18 July 1951

Reducer	Time
plus 0.3	0830-1048
plus 0.2	1049-1158
plus 0.1	1159-1239
0.0	1240-1324
0.1	1325-1410
0.2	1411-1456
0.3	1457-1550
0.4	1551-1630

19 July 1951

plus 0.1	0800-0845
plus 0.2	0846-0950
plus 0.3	0951-1150
plus 0.2	1151-1253
plus 0.1	1254-1340
0.0	1341-1424
0.1	1425-1508
0.2	1509-1553
0.3	1554-1644

20 July 1951

0.1	0800-0829
0.0	0830-0900
plus 0.1	0901-0955
plus 0.2	0956-1257
plus 0.1	1258-1359
0.0	1400-1444
0.1	1445-1521
0.2	1522-1609
0.3	1610-1630

21 July 1951

0.2	0830-0900
0.1	0901-0944
0.0	0945-1034
plus 0.1	1035-1200

23 July 1951

Reducer	Time
0.2	1031-1209
0.1	1210-1540
0.2	1541-1700

24 July 1951

0.3	0800-1130

C
O
P
Y

USC&GSS SURVEYOR - 705 Federal Office Bldg., Seattle 4, Wash.

3 August 1951

To: Director
U. S. Coast and Geodetic Survey
Washington 25, D.C.

Via: Commanding Officer
U. S. Coast and Geodetic Survey Ship SURVEYOR

Subject: Survey of Sweeper Cove and inspection of tide stations Adak and Attu.

In accordance with your instructions the party reported at Kodiak 4 July for air transportation to Adak. The flight was cancelled that day but we left the morning of 5 July arriving at Adak the same day.

The Navy furnished a fifty foot launch with engineer and coxswain and other miscellaneous supplies and equipment and after conference with them regarding what was desired the work was started. Sufficient triangulation stations were recovered so that no triangulation was necessary. Additional signals needed for hydrographic control were located by plane table.

It was believed that 1:5,000 scale would not permit the development called for in the instructions so it was surveyed on 1:2,500 scale.

Tagline was used in part of the area, but it proved to be very time consuming. The launch was used for the remainder of the development around the dock area and it proved very satisfactory. Practically all the northern part of the cove, around the dock area and the small boat harbor were resurveyed and the work was carried south to a satisfactory junction with the old surveys.

Upon completion of the work the boat sheet was shown to the Commanding Officer and Public Works Officer and they expressed complete satisfaction with the work and did not desire any work.

done in any of the areas not surveyed.

No facilities were available at Adak for photostating the boat sheet and the Commanding Officer stated that there were too many soundings on the boat sheet for their purpose so a tracing was made showing selected soundings and he advised me that it was sufficient for their needs. Actual tides were used for the reduction of soundings so there should be very little difference between the boat sheet and smooth sheet. A print of the tracing furnished them was brought back for forwarding to the office with the records to show the office what information was furnished the Navy.

The tide station at Adak was checked and the harbor bottom had silted around the wall so that it was bare at about one quarter tide. Conference was held with the Naval authorities regarding new location for the tide station and it was decided that Pier 7 would make a good location both for the station and for ease of tending the gage. The Navy moved a house on the site and put in a pipe float well, outlets were provided and heater and lights and installed. The gage was moved, new bench marks established and level connections to old bench marks were made.

The flights to Attu from Adak were made at very irregular intervals, and as a rule remained there only an hour or so, for that reason I did not want to leave Adak until all work there was completed. Air transportation advised me that without a special flight to Attu the only way I could make the trip was to go by unscheduled plane from Adak to Shemya (which flew at irregular intervals) Shemya to Attu by Navy Tug and return to Shemya, then plane from Shemya to Anchorage and then plane to Kodiak but on this trip scheduled planes would not permit me to return to Kodiak until 7 August. This was when I sent a radio requesting authority to omit the inspection at Attu. Then on 28 July they advised me that there was a special flight going to Attu on 30 July which they would hold at Attu for me for three hours if necessary. I requested permission for Ensign Lanier to accompany me in order that we could run the levels and check the gage at the same time. This was approved and the trip was made. The gage was operating satisfactorily and a few minor adjustments were made and the observer directed as to his duties. The short time that we were there permitted us to level between the staff and only two bench marks but no difference was noted in the new and last year's levels.

While in Adak conference was held with Communication Officer regarding the transmission of the seismic seawave messages and he advised that there would be no change in the communication system due to the change over at Attu.

The party returned to Kodiak in two sections and all reported aboard upon arrival of ship in Kodiak.

Edgar F. Hicks, Jr.
Lieut. Comdr., USC&GS

First Endorsement:

Conference will be held with the Navy in Kodiak and the boat sheet of Sweeper Cove will be turned over to them for photostating if desired. The records will be retained on board and processed in usual manner unless otherwise instructed. The tide reports will be sent in when completed.

Glendon E. Boothe
Commander, USC&GS
Comdg., USC&GSS SURVEYOR

C
O
P
Y

USC&GSS SURVEYOR - 705 Federal Office Bldg., Seattle 4, Wash.

6 August 1951

To: Director
U. S. Coast and Geodetic Survey
Washington 25, D.C.

Subject: Chart corrections

In the resurvey of Sweeper Cove significant soundings which should be charted were found at below listed positions. It is to be noted that these postions are on N.A. 1927 Datum while the chart is not on this datum.

Sounding	Latitude	Longitude
5.3 fathoms	51° - 51' plus	1269 meters
	176° - 38' plus	184 meters
5.3 fathoms	51° - 51' plus	1255 meters
	176° - 38' plus	247 meters
5.2 fathoms	51° - 51' plus	1262 meters
	176° - 38' plus	384 meters
5.2 fathoms	51° - 51' plus	1263 meters
	176° - 38' plus	342 meters
8.6 fathoms	51° - 51' plus	1119 meters
	176° - 38' plus	22 meters
7.7 fathoms	51° - 51' plus	1068 meters
	176° - 38' plus	264 meters

Attached is a print of a tracing furnished the Navy at Adak showing the results of this survey.

Glendon E. Boothe,
Commander, USC&GS
Comdg., USC&GSS SURVEYOR

APPROVAL SHEET

The field work on this survey was conducted under the supervision of Commander Glendon E. Boothe who has inspected the records and the boat sheet.

It is believed that the survey is complete and adequate for charting purposes and complies with the instructions.

Riley J. Sipe
Comdr., USC&GS
Comdg. USC&GSS SURVEYOR

RHC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography 24 March 1952

Division of Charts: R. H. Carstens

Plane of reference approved in 3 volumes of sounding records for

HYDROGRAPHIC SHEET 7825

Locality Adak Island, Aleutian Islands

Chief of Party: G. E. Boothe in 1951
Plane of reference is mean lower low water, reading
3.0 ft. on tide staff at Sweeper Cove
7.0 ft. below B. M. 1 (1943)

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

Condition of records satisfactory except as noted below:

E. C. McKay
Section
Chief, ~~Division~~ of Tides ~~and Currents.~~

U. S. GOVERNMENT PRINTING OFFICE 154327

GEOGRAPHIC NAMES

Survey No. H-7825

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Alaska										1
Aleutian Islands										2
Adak Island										3
Sweeper Cove			(location of tide gage)							4
										5
										6
										7
				Names underlined in red are approved. 3-4-52						8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7825...

Records accompanying survey:

Boat sheets .1...; sounding vols. .3...; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 1 Env.;

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		944
Number of positions checked		170
Number of positions revised		4
Number of soundings revised (refers to depth only)		2
Number of soundings erroneously spaced		7
Number of signals erroneously plotted or transferred		0
Topographic details	Time	4
Junctions	Time	4
Verification of soundings from graphic record	Time	2

Verification by J.E. Gearhart ...Total time 178... Date 9-9-52

Reviewed by....D.A. Dinsmore..... Time 24 hrs. Date 9 Oct. 1952

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7825 FIELD NO. SU-025151

Alaska-Aleutian Is., Adak I., Sweeper Cove

Project No. CS-344

Surveyed in July 1951 Scale 1:2,500

Soundings:

808 Fathometer
Handlead

Control:

Sextant fixes on shore signals
Tagline measurements

Chief of Party - G. E. Boothe
Surveyed by - E. F. Hicks, Jr.
Protracted by - W. R. Kachel
Soundings plotted by - W. R. Kachel
Verified and inked by - J. E. Gearhart
Reviewed by - T. A. Dinsmore, 9 October 1952
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with topographic survey T-6998 (1945) supplemented by a minor revision from present survey information.

The signals are from graphic control survey SU-A-51 which has been subsequently destroyed. The Descriptive Report covering the graphic control survey is attached to this Descriptive Report.

2. Sounding Line Crossings

Depths at sounding line crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

Except for minor irregularities in the berthing areas, the bottom is generally smooth. No unusual bottom features are apparent.

4. Adjoining Surveys

Adequate junctions were effected with H-6915 (1943) on the east and south and with H-7084 (1945) on the southwest.

5. Comparison with Prior Surveys

a. H-6889 (1933) 1:15,000

This reconnaissance survey by the U. S. Navy has been compared with and superseded by the surveys discussed in the succeeding paragraph. Further consideration of the survey is, therefore, deemed unnecessary in this review.

b. H-6915 (1943) and H-7084 (1945) at scales of 1:5,000

The present survey falls within the area covered by these prior surveys. Where harbor improvements had changed the bottom in Sweeper Cove, H-6915 was superseded by H-7084.

A comparison between the prior and present surveys reveals some changes in bottom. The most noticeable change has occurred in lat. 51° 51.57', long. 176° 38.23', where prior depths of 14 fms. have since shoaled to depths of 7⅔-9 fms. Further shoaling is evidenced immediately eastward in lat. 51° 51.60', long. 176° 38.03', where prior depths of 12 fms. are now superseded by depths of 8½ fms. Some silting has occurred in the small-boat harbor at the southwestern corner of the survey. In this locality, present depths are a few feet less than prior depths. Except for the examples given, only minor differences in depths are noted elsewhere in the area.

The 3⅔-fm. sounding charted near pier No. 2 in lat. 51° 51.73', long. 176° 37.80', originate with H-7084. Inasmuch as the 4-fm. depth obtained in the vicinity on the present survey resulted from incomplete development of the shoal, the prior 3⅔-fm. sounding has been carried forward to the present survey.

In several areas (unsurveyed or sparsely surveyed) on the present survey, numerous soundings have been carried forward from the prior surveys, 1943-45 to complete the coverage of the area. of

With the indicated additions, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 9119 (Latest print date 10/8/51)

A. Hydrography

Charted hydrography originates principally with the previously discussed surveys. Several critical soundings have been charted from advance information of the present survey contained in Chart Letter 526 and blueprint 47895 of 1951.

The 7-3/4-fm. sounding charted in lat. 51° 51.67', long. 176° 37.86', from blueprint 47895 (copy of boat sheet) should be disregarded. The sounding originated with a stray recording which was subsequently corrected in the sounding volume and now appears as 10.3 fms. on the smooth sheet.

The two obstructions charted in lat. 51° 51.25', long. 176° 39.06', from blueprint 39895 (1945) were not disproved on the present survey and should be retained on the chart.

Except as noted in the preceding paragraph, the present survey supersedes the charted information.

B. Aids to Navigation

The mooring buoys charted within Sweeper Cove are in accordance with information contained in Chart Letter 526 (1951) which is subsequent to the present survey.

Other aids to navigation located on the present survey are in agreement with the charted aids and adequately mark the features intended.

7. Condition of Survey

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

b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The survey meets the requirements of the U. S. Navy by whom it was requested.

9. Additional Field Work

Supplemented by soundings from the surveys of 1943-45 the present survey is considered to be basic for the area covered and no additional field work is recommended.

H. R. Edmonston
Chief, Nautical Chart Branch

Examined and approved:
H. Arnold Karo
Chief, Division of Charts

L. S. Hubbard
Chief, Section of Hydrography

Earl O. Heaton
Chief, Division of Coastal Surveys

ORIGINAL

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. SU - A -51 *Office No.*

LOCALITY

State Alaska

General locality Aleutian Islands

Locality Adak Island, Sweeper Cove

Glendon E. Boothe

1951

CHIEF OF PARTY

LIBRARY & ARCHIVES

DATE MAR 8 1952

B-1870-1 (1)

Form 537a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

Each Topographic and Graphic Control Sheet, and each Air Photographic Drawing should be accompanied by this form, completed so far as practicable, when forwarded to the Washington office.

REGISTRY No. .....

Field No. SU-A-51

Scale 1:2500

State Alaska General locality Aleutian Islands

Specific locality Sweeper Cove, Adak Island

Dates: Survey began 9 July 1951 Completed 10 July 1951

Photography....., Supplemented by ground surveys to .....

Project No. ..... Instructions dated 8 March 1951 and 19 June 1951

Vessel / Party or SURVEYOR Chief of party Glendon E. Boothe

Field work by Roger F. Lanier Office work by Roger F. Lanier

Final inking by Roger F. Lanier

Ground elevations / Treetop elevations in feet above { M. H. W. / or / ----- }

Contours / Approximate contours / Form lines by { Planetable / Multiplex / ----- } Interval ..... ft.

REMARKS .....

U. S. GOVERNMENT PRINTING OFFICE 16—38129-1

DESCRIPTIVE REPORT

TO ACCOMPANY

TOPOGRAPHIC SHEET

Glendon E. Boothe, Commander, C&GS
Chief of Party

AUTHORITY:

Authority for this survey was the Director's Instructions Project CS-344, 8 March 1951 and Resurvey Sweeper Dove, 19 June 1951, to the Commanding Officer, Ship SURVEYOR.

The topography was done for the purpose of locating signals to be used in the hydrographic survey.

LIMITS:

The sheet extends west from Sweeper Cove Jetty Light and covers all of Sweeper Cove.

CONTROL:

The control for this survey was furnished by previously completed third order triangulation.

SURVEYING METHODS:

Signals were located by intersection and resection. Standard practice was followed throughout the sheet.

Signal location was given priority and only that shoreline which could be rodded in without additional plane table setups was located.

GENERAL DESCRIPTION OF THE COAST:

The north and west sides of Sweeper Cove and developed areas with numerous docks, buildings and surfaced roads in good condition. The south side of the cove is generally undeveloped and is steep and rocky. There is a small boat landing in Hammerhead Cove on the south side of Sweeper Cove. Signal GAB is on the dock. (offshore gable of old tide house)

GEOGRAPHIC NAMES:

The geographic names that appear on Chart No. 9119 are adequate.

COMPARISON WITH PREVIOUS SURVEYS:

The survey was compared with a photostat of H-7084, 1945 and the shoreline generally agrees.

STATISTICS:

Number of hydrographic signals located	62
Statute miles of shore line	3.2

Respectfully submitted

Roger F. Lanier
Ensign, USC&GS

Approved and Forwarded:

Glendon E. Boothe
Commander, USC&GS
Commanding Ship SURVEYOR

Inasmuch as this planetable survey only covers a portion of ~~the~~ Sweeper Cove and is in good agreement with T-6998 (1945), it has been destroyed. Only minor changes in the piers have been made and these are shown on H-7825 in red.

J. A. Dinsmore
9 Oct. 1952

NAUTICAL CHARTS BRANCH

SURVEY NO. - H-7825

Reviewed 9 Oct. 1952

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
9/12/52	9141	L. L. Evans	~~Before~~ After Verification and Review (before) partial application (critical sdgs. only)
4/2/53	9119	"	~~Before~~ After Verification and Review partial appl'c'n
6/15/53	9193	R.D. Goodrich	~~Before~~ After Verification and Review completely applied
11/26/58	5363	J.F.W	Before After Verification and Review
6/7/60	9119 9141	WE	~~Before~~ After Verification and Review add'l. partial application - to be considered final until chart is reconstructed.
			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.