6845

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. 2143 *Office No.* H-6845

LOCALITY

State Alaska

General locality Atka Island

Locality Korovin Bay

1943

CHIEF OF PARTY

Elliott B. Roberts (E. LESTER JONES)

Casper M. Durgin (SURVEYOR)

W. M. Scaife (U.S.S. HYDROGRAPHER)

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Form 537
Ed. Dec. 1930

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.

Field No. 2143

REGISTER NO. H-6845

State Alaska

General locality Aleutian Islands

Locality Atka Island - Korovin Bay
Insert scale 1:10,000

Scale 1:20,000 Date of survey May - August, 1943

Vessel SURVEYOR, E. LESTER JONES and U.S.S. HYDROGRAPHER

Chief of Party C. M. Durgin, E. B. Roberts and W. M. Scaife

Surveyed by L.W.Wilder, E.B.Roberts, L.S.Hubbard, W.F.Malnate, C.A.George and Officers of the U.S.S. HYDROGRAPHER

Protracted by R. M. Sylar

Soundings penciled by R. M. Sylar

Soundings in fathoms ~~XXXX~~

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by A. R. Stirni

Verified by A. R. Stirni

Instructions dated 2/5/38; 3/1/38; 4/3/39; 6/7/39; 5/8/40; 4/16/43; 4/19/43., 19

Remarks:

Smooth sheet and plotting by the Seattle Processing Office

U. S. GOVERNMENT PRINTING OFFICE

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USS HYDROGRAPHER

AGS2/H1 (AGS 2) 11/Pr

% Fleet Post Office,
San Francisco, Cal.,
23 June 1943

Descriptive Report for Hydrographic and Topographic Surveys - Korovin Bay, Atka Island, Alaska.

USS HYDROGRAPHER - March - April, 1943

Control:

The datum used on boat sheets and topographic sheet is approximately the Atka I. 1925-34 datum. The triangulation was extended from stations Isle and Atka NE Base as shown on the triangulation sketch. A delay in receiving the correct geographic positions of these stations necessitated using the best data available which was a blue print of one of the 1934 hydrographic sheets of Nazan Bay which was borrowed from U.S. Army Engineers stationed at Atka. The geographic positions of stations Isle and Atka NE Base were scaled from this blue print and the length and azimuth between the two scaled positions was computed. This line was used for the datum for all surveys in Korovin Bay. Positions of all stations on boat sheets and topographic sheets were computed and plotted on this datum. After later receipt of the correct geographic positions of Isle and Atka NE Base on the 1925-34 datum the triangulation was recomputed. The geographic positions submitted with the records are these recomputed values and are not the positions plotted on the sheets.

Accompanying this report is an abstract of preliminary positions and positions on the 1925-34 datum. The preliminary datum is in error about 35.5 seconds in azimuth and has a scale factor of approximatley 1.02. The maximum error in position in the area covered by these surveys is at Cape Korovin and the error is about 50 meters. The correction to boat sheet positions at Cape Korovin is about plus 30 meters in latitude and plus 40 meters in longitude.

Soundings:

Ship soundings were obtained with a standard Navy NJ-3 or NMB-2 fathometer. The sounding records indicated which was being used. Both fathometers were calibrated for a velocity of 4800 feet per second. The NJ-3 fathometer is designed to give the depth below the oscillators. A constant correction of plus 2 fathoms was added to all NJ-3 soundings on the boat sheet. The NMB-2 fathometer was adjusted to give approximate true depths and no correction

AGS2/H1 11/Pr

23 June 1943

Descriptive Report for Hydrographic and Topographic Surveys - Korovin Bay, Atka Island, Alaska.

- -

to NMB-2 soundings was applied on the boat sheet. Comparisons between wire soundings (vertical casts) and each fathometer are recorded in the sounding records.

Launch soundings were obtained with a standard Navy NK-1 fathometer which is similar to a Submarine Signal Co. 808 fathometer. The fathometers were set to give true depths by bar checks and lead line soundings on the bottom.

None of the soundings on boat sheets were corrected for tide.

Remarks:

These surveys were made for a specific purpose in a limited time and are not considered complete surveys even in the areas covered by the surveys. The head of the bay north of △ Dan is believed to be free of any dangers. The central part of the bay west of △Dan is also believed to be free of dangers but was not thoroughly developed as would have been done if a complete survey were made. Along the southern limits of the soundings west of △Dan the bottom is very irregular. Dangers may exist in this area of rough bottom and it should be further developed.

Developed later by the E. LESTER JONES

C. W. Clark
C. W. CLARK.

Approved:

W. M. SCAIFE.

Surveys by USS HYDROGRAPHER
Korovin Bay, Atka I. Alaska
Abstract of differences between preliminary datum used on boat sheets and Topo. sheet and Atka I. 1925 - 34 datum.

Station	Correct Position o '	"	Meters	Preliminary Position o '	"	Meters	Correction Meters
IS	52-14	59.36	1834.8	52-14	58.95	1822.1	+ 12.7
	174-15	08.70	165.1	174-15	08.03	152.3	+ 12.8
FRONT	52-14	38.20	1180.7	52-14	37.83	1169.3	+ 11.4
	174-15	43.55	826.3	174-15	42.81	812.3	+ 14.0
DAN	52-15	26.22	810.5	52-15	25.75	795.9	+ 14.6
	174-16	49.90	946.6	174-16	49.03	930.1	+ 16.5
SKI	52-16	44.428	1373.2	52-16	43.80	1353.9	+ 19.3
	174-15	51.039	967.7	174-15	50.31	953.9	+ 14.8
WEST	52-14	07.76	239.8	52-14	07.45	230.2	+ 9.6
	174-16	20.82	395.2	174-16	19.99	379.4	+ 15.8
MARTIN	52-13	54.249	1676.8	52-13	53.96	1667.8	+ 9.0
	174-17	51.003	968.0	174-17	49.98	948.5	+ 19.5
VIN	52-17	07.210	222.8	52-17	06.50	200.9	+ 21.9
	174-22	00.880	16.7	174-21	59.39	1125.8 (11.6)	+ 28.3
MID	52-13	24.90	769.6	52-13	24.64	761.5	+ 8.1
	174-22	39.38	747.5	174-22	37.76	716.8	+ 30.7
EGG	52-13	29.33	906.5	52-13	29.03	897.3	+ 9.2
	174-27	25.72	488.2	174-27	23.50	446.1	+ 42.1
RAD	52-13	05.053	156.1	52-13	04.89	151.1	+ 5.0
	174-13	58.261	1105.6	174-13	57.70	1095.5	+ 10.1
SPOT	52-15	39.513	1221.3	52-15	39.04	1206.8	+ 14.5
	174-12	19.714	374.0	174.12	19.40	368.0	+ 6.0
ISLE	52-12	34.691		52-12	34.62		+ 2.2
	174-08	59.956		174-09	00.00	0.0	- 0.8
ATKA	52-14	22.516		52-14	22.21		+ 9.4
NE BASE	174-11	02.458		174-11	02.28		+ 3.5

Report by the

Party of the

E. LESTER JONES

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET
FIELD NO. 2143 ALEUTIAN ISLANDS, KOROVIN BAY,
PROJECT CS 218.

5

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Original Instructions: 2/3/38; Supplemental Instructions: 3/1/38, 4/3/39, 6/7/39. 5/8/40, 4/16/43, 4/19/43.

Survey methods: Standard practice was followed throughout, using the 808A depth recorder. Sending and receiving units for that portion of the survey performed by the MV E LESTER JONES were inside the bilge of the vessel. Units of the launches concerned were overside in the standard fishes. Bar checks in both cases were systematically made. Application of velocity corrections depended on serial temperature observations made at and near the site of the hydrography, a copy of the correction tabel being appended hereto. Scale factor corrections for that portion of the work performed by the E. LESTER JONES depended upon comparisons made in the field, a tabulation and summary of which is appended hereto. Fixes depended throughout upon sextant observations. The hydrography throughout the central portion and approach to the bay was correlated with work performed in March 1943 by the USS HYDROGRAPHER. Development of the anchorage area at the head and north side of the bay having been completely performed by the HYDROGRAPHER, this area was not resurveyed except for the obtaining of bottom samples. The hydrographic survey of Martin Harbor was not repeated. Original records of USS HYDROGRAPHER were field numbered; Korovin Bay, 101; N. side Korovin Bay, 102; Martin Harbor, 103; Head of Korovin Bay, 104. (Launch party of SURVEYOR subsequently added hydrographic area on latter boat sheet.

No noteworthy discrepancies were noted during performance of the work.

Principal danger is the rock (station DAN 1943) in approximately mid-bay at the entrance to the anchorage area, lat. 52° - 15.4, long. 174° - ~~16.8~~ 17.0*. This rock is visible at all stages of the tide. Rocks and shoal areas lie in the area bounded by the aforementioned rock and lines from it to the east side of Martin Harbor entrance and to the south end of the sand beach at head of the bay. See sheet. Pinnacle rocks are found northwest of the point at the west side of Martin Harbor entrance and generally near the south shore of Korovin Bay, which should be considered a dangerous area. The chart is the best guide to these rocks. A rock at lat. 52° - 12.9, long. 174° - 21.2*, off the west shore of the bight outside Sarana Bay, bares at low water, and is considered a danger. Sarana Bay, while navigable with

C.P. Rej. 223.0
25

* Cor. to Unalaska Datum

local knowledge by small craft of not over 10-feet draft, abounds in sunken rocks and has so tortuous an entrance that is not considered generally navigable.

Channels as such do not exist within the surveyed area, with the exception of Sarana Bay entrance, mentioned above.

Anchorages are as follows:

Anywhere in 5 to 15 fathoms, 400 m. to 1 mi. off the sand beach at head of the Bay, having regard to the rock shoals near the southern end of the area, in sand and gravel bottom, tending toward muddiness at the northern end. Available for any size ships.

Best anchorage for vessels not greatly more than 100 feet in length is Martin Harbor, which opens out of the south shore of Korovin Bay about 2 miles from the head thereof. Excellent shelter and freedom from williwaws can be found here. Depth is 11 fathoms, sand and mud bottom, about the middle of the Harbor ¾ mile inside its entrance.

About lat. 52° - ~~17.1~~ 16.8, long 174° - 19.2 * in 6 - 10 fathoms, sand and gravel bottom, in the bight approaching the lagoon opening out of the north shore of Korovin Bay.

About lat. 52° - 17.3, long. 174° - 23.4 * sand and gravel bottom in 10 fathoms in the entrance to the small bay on the north shore of Korovin Bay just well inside Cape Korovin. Much less protection is afforded here than in the two previously named anchorages.

At about lat. 52° - 12.5, long. 174° - 20.8 *, in 10 fathoms, sand bottom, in the outer bight at Sarana Bay entrance. Regard must be had for the rock bare at low water off the west shore of this bight. Better protection may be had here from southwest weather than in the two previously mentioned.

All the foregoing are available and suitable for medium sized ships, however, heavy ground swells may make in during westerly weather. Anchors hold reasonably well in all anchorages named.

The work performed by the USS HYDROGRAPHER showed nothing seriously at variance with the findings of the present survey.

* Corrections to Unalaska Datum

C.P.R.-f. 223.0

No wire drag investigations were performed.

No new geographic names were assigned.

Statistics: Field No. 2143

Positions:	2557
Stat. mi. sounding lines:	663.6

(Exclusive of USS HYDROGRAPHER)

Submitted,

Elliott B. Roberts,
Lieut. Comdr., USCGS.

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. C[illegible] T AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED
TO BE DELETED
} STRIKE OUT ONE

Seattle, Washington 12 January 1944, 193

I recommend that the following objects which have (*have not*) been inspected from seaward to determine their value as landmarks, be charted on (*deleted from*) the charts indicated.

The positions given have been checked after listing.

Elliott B. Roberts *Chief of Party.*

GENERAL LOCALITY / NAME AND DESCRIPTION	POSITION					METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM						
	° ′	D. M. METERS	° ′	D. P. METERS							
Pyramidal Rock	52 14	1385	174 15	403	Un-Alaska	Triang.	Mar.43		x		
Prominent from westward											

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 69675

FINAL FATHOMETER CORRECTIONS

SURVEYOR'S Launches & E. LESTER JONES
Project CS-218, Atka I.
Portable Recorders - Type 808A

Depth (fms)			Cor. (minus)	
0	to 2		-0	feet
2	" 6		-½	"
6	" 10		-1	"
10	" 13½		-1½	"
13½	" 17½		-2	"
17½	" 21½		-2½	"
21½	" 25		-3	"
25	" 28½		-3½	"
28½	" 32½		-4	"
32½	" 36		-4½	"
36	" 39½		-5	"
39½	" 43		-5½	"
43	" 47		-6	"
47	" 50		-6½	"
50	" 53½		-7	"
53½	" 56½		-7½	"
56½	" 60		-8	"
60	" 63		-8½	"
63	" 66½		-9	"
66½	" 70		-9½	"
70	" 73½		-10	"
73½	" 76½		-10½	"
76½	" 80		-11	"
80	" 83		-11½	"
83	" 86½		-12	"
86½	" 90		-12½	"
90	" 93		-13	"
93	" 96½		-13½	"
96½	" 100		-14	"
100	" 103		-14½	"
103	" 106		-15	"
106	" 112½		-16	"
112½	" 119		-17	"
119	" 125		-18	"
125	" 132		-19	"
132	" 139		-20	"
139	" 145		-21	"
145	" 151		-22	"
151	" 158		-23	"

TIDAL NOTE TO ACCOMPANY DESCRIPTIVE REPORT SHEET FIELD NO. 2143

Tide reducers were applied in accordance with the records of a portable automatic tide gage maintained during the progress of the hydrography at Martin Harbor. That portion of the hydrography performed by the USS HYDROGRAPHER was reduced from portable automatic tide records obtained at another station on the opposite shore of Martin Harbor. The bench marks at these two stations have been connected by spirit levels. No difference in datum plane between the two stations can exist.

See also Page 25

STATEMENT OF CHIEF OF PARTY TO ACCOMPANY DESCRIPTIVE REPORT SHEET FIELD NO. 2143.

The sheet and accompanying records have been inspected, and are approved to the extent that they originated or emanated from the MV E LESTER JONES. Close supervision of field and office work was exercised.

Elliott B. Roberts

Elliott B. Roberts.

E. Lester Jones

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PROJECT HT-218, N. COAST ATKA ISLAND, Aleutian Islands, Alaska.
May - August 1943

DETERMINATION OF DEPTH RECORDER No. 47 SCALE FACTOR CORRECTIONS.

Comparative depth readings:

A scale	B scale	Diff.	Condition	Pos. No.	Sdg. Day	Date	Remarks
49-3	46-2	3-1	Ex.	20-21	A(2143)	5/19	Contact
54-3	51-1	3-2	Fair	32-33	"	"	break
42-3	39-2	3-1	Fair	84-45	"	"	about
43-4	40-4	3-0	Fair	129-130	"	"	16-4 (A)
54-4	51-3	3-1	Poor	28-29	B(2143)	5/20	
53-4	50-4	3-0	Poor	77-78	"	"	
41-2	38-1	3-1	Good	137-138	"	"	
53-2	50-2	3-0	Poor	181-182	"	"	
43-3	40-3	3-0	Fair	224-	"	"	
53-0	49-5	3-1	Ex	3-4	D(2143)	5/26	
44-0	41-0	3-0	Fair	42-43	"	"	
53-2	50-0	3-2	Fair	58-59	"	"	
38-0	34-5	3-1	Good	87-88	"	"	
46-2	43-2	3-0	Good	39-40	E(2143)	5/27	
50-2	47-0	3-2	Fair	77-78	"	"	
44-5	41-4	3-1	Good		time 1435	5/29	Sheet (2143)
44-5	41-5	3-0	Good		"	"	
43-4	40-4	3-0	Ex		1607	"	
43-5	40-4	3-1	Good		"	"	
	Mean plus	3-1					

B scale	C scale	Diff	Condition	Pos. No.	Sdg. Day	Date
77-4	75-0	2-4	Poor	43-44	C(2143)	5/24
76-1	73-4	2-3	Fair	187-188	D(2143)	5/26
88-4	86-4	2-0	Good	90-91	E(2143)	5/27
72-3	70-1	2-2	Fair	92-93	"	"
	Mean plus	2-2				

On 1 June, adjustment was made to depth recorder 47, changing the time of the contact break, thereby altering the angular relationship between the recording stylus and the direction of eccentricity of the phasing head, and consequently also the scale factor corrections.

Conclusions: For all work prior to 1 June, add 19 feet to all B scale soundings (depth recorder 47) and add 33 feet (19 plus 14) to all C scale soundings.

See page 29 for add'l remarks on above

Report by the

Party of the

SURVEYOR

DESCRIPTIVE REPORT TO ACCOMPANY SHEET FIELD NO. 2143 H-6845
ALEUTIAN ISLANDS, KOROVIN BAY, PROJECT HT 218.

Original Instructions: 2/3/38

Supplemental Instructions: 3/1/38; 4/3/39; 6/7/39; 5/8/40; 4/16/43; 4/19/43

Survey Methods:

Standard practice in use of the 808A depth recorder was followed. Unless otherwise noted in the sounding records, the instrument was maintained at correct speed as verified by continuous watch upon the tachometer. Gain was kept at the practicable maximum. Battery voltage was maintained at approximately 12 volts. No manipulation of the initial cutout was performed. In the case of work performed by the E. LESTER JONES, all use of the 808A depth recorder was with the transmitter and receiver units of the fish dismounted and installed in the ship's bilge. Several methods were used, the final and satisfactory arrangement having the units in sealed sheet metal containers full of fresh water, same being laid in a few inches of bilge water. Results were superior to those using the outboard fish, largely because of the consequent avoidance of vibration and water turbulance about the units.

Discrepancies: None were noted.

Dangers: Outstanding danger within the surveyed area is the rock . . .
△ (Dan) φ 52° 15.2, λ 174° 17.05

Etc! Etc.

Channels: There are no channels, as such, in the waters and tributary waters of Korovin Bay, except that to Sarana ~~Bay~~ Cove, opening from the south shore of Korovin Bay. This ~~passage~~ has a limiting depth of 8 2½ fathoms, but since it is extremely narrow, tortuous, hemmed in by sunken rocks, and leads only to a shallow bay also containing hidden dangers, it is not recommended that it be used except by persons having complete local knowlege. The entrance to Martin Harbor is wide and clear.

Anchorages: (refer to Coast Pilot notes for this information) C.P. Ref. 223.0

Comparison with previous surveys: No previous surveys exist, except for a partial survey made in March 1943 by USS HYDROGRAPHER. Field records being available, it is proposed that these be used together with the records of this party in plotting smooth sheets. No discrepancies were noted beyond slight evidences of shift in the positions of soundings made with less complete control by the HYDROGRAPHER.

FINAL FATHOMETER CORRECTIONS

SURVEYOR'S Depths to 100 fathoms

Hydrographic Surveys H-6845, 6846, 6847, 6848 & 6850

Portable Recorders - Type 608A & Dorsey III

Depth (fms)			Cor. (minus)	
0	to	4	-0	feet
4	"	7½	-½	"
7½	"	13	-1	"
13	"	17	-1½	"
17	"	20	-2	"
20	"	23½	-2½	"
23½	"	27	-3	"
27	"	30½	-3½	"
30½	"	34	-4	"
34	"	37½	-4½	"
37½	"	41	-5	"
41	"	44	-5½	"
44	"	48	-6	"
48	"	51	-6½	"
51	"	55	-7	"
55	"	62	-8	"
62	"	68	-9	"
68	"	75	-10	"
75	"	82	-11	"
82	"	88	-12	"
88	"	95	-13	"
95	"	101	-14	"
101	"	107	-15	"

H-6845 (Field No. 2143)

Aleutian Islands - North Shore Atka Island - Korovin Bay

PROCESSING OFFICE NOTES

DATUM

The four boat sheets made by the U.S.S. HYDROGRAPHER are approximately on the Atka 1925-1934 datum, being based on a position scaled from a print.

The other three boat sheets are on the Atka 1925-1934 datum as determined from field computations of 1943 triangulation.

The smooth sheet is on the Unalaska Datum as determined by a recomputation of the triangulation (unadjusted) made by the Washington Office.

CONTROL

Based on 1943 triangulation. Most of the signals used were located by topographic surveys during the season. There are a few hydrographic locations of signals, recorded in sounding volumes 13 and 19.

Signal NOT

Signal NOT is on the point at the east side of the approach to Egg Bay. There are three sharp rocks or pinnacles on this point. See following sketch prepared by Lt. E. B. Brown of the E. LESTER JONES. next page

The HYDROGRAPHER'S party when observing on EGG found they were using the wrong point. They cut in the point being used, marked the previous record "not EGG"; and called the new point "NOT".

The cuts intersected close to the topographic position of the pinnacle (T-6918b) which has been located but not named by the topographer. This topographic position was accepted as the proper location on the recommendation of Lt. Brown.

174 – 28

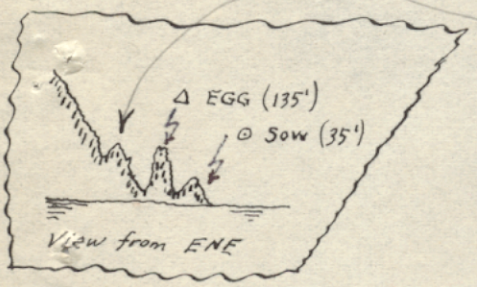
174 – 27

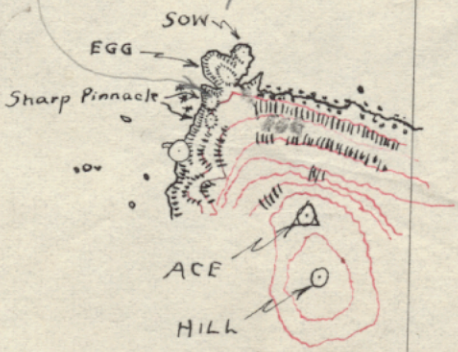
52-14

Hydro signal "NOT" used by Scaife's party instead of △ EGG RKS.

It is believed that this is the pinnacle that was used as hydro signal by Scaife's party

EBB





52-13

T6918 a&b

Topo Sheet No. "G" & "F"

No. Shore Atka Id.

Proj. CS 218

SHORELINE

Shoreline is taken from T-6917a (1943), T-6918a & b (1943). Transfer to smooth sheet checked Dmg.

INSERT

On account of close development, Martin Harbor was plotted as an insert on scale of 1:10,000, which is twice as large as the rest of the sheet.

BUOYS

The three buoys in the vicinity of Lat. 52° 17', Long. 174° 20' are temporary moorings for seaplanes.

ROCKS

The rock located as triangulation station DAN is noted as the principal danger in the bay. On T-6917 (1943) the extent of this rock is not delineated but the height above H.W. is given as 5 ft. In sounding Vol. 7, page 45, pos. 100b, with plus 1/2 foot tide reducer, the sounding party notes it is 6 feet above water level. The mean tide range is approximately four feet which would make the rock about 1½ to 2 feet above H.W. Near the bottom of page it is noted that "This rock is visible at all stages of the tide". It is probably from two to five feet above M.H.W. Used 3' at MHW H.W.M.

In Vol. 7, page 45 is the note "rock just west of DAN bare 4 feet at this stage of tide". Tide reducer plus 1/2 foot. On page 46 the same note appears for the rock at Lat. 52° 15'.1, Long. 174° 16'.7. These two rocks are then 3½ feet above MLLW. Used awash MHW

HYDROGRAPHER'S FATHOGRAMS

These were rescanned in the Processing Office by Lt. E. E. Jones and Ens. E. A. Dorner, officers of the SURVEYOR.

ADDITION OF SOUNDINGS TO HYDROGRAPHERS RECORDS:

In some of the launch records, soundings had been entered at positions only. Additional soundings were interspaced at the usual intervals and the work was checked by the officers named above.

DRAFT CORRECTIONS - HYDROGRAPHER'S RECORDS:

The two fathoms draft correction to fathometer NJ-3, noted in the HYDROGRAPHER'S report on page | , was applied where proper. It was combined with the initial correction where such appeared on the fathogram.

ECHO CORRECTIONS - HYDROGRAPHER'S RECORDS:

No echo corrections were supplied by this party. All sonic sounding devices of the HYDROGRAPHER were calibrated for a sound speed of 800 fathoms per second. A schedule of corrections for the ONONDAGA for July and August, for fathometers with the same calibration, furnished by the EXPLORER, showed very small corrections within the depths sounded. The corrections were deemed neglible and none were applied. See ONONDAGA'S corrections following.

FATHOMETER CORRECTIONS
for
HUGHES & R.C.A. on ONONDAGA
800 Fms. (1463 Meters) Per Sec.
JULY & AUGUST 1943

Fathoms			Ft.
0	to	30	0
30.1	to	100	-1
101	to	129	0

			Fms.
130	to	290	+1
291	to	420	+2
421	to	525	+3
526	to	630	+4
631	to	699	+5
700	to	785	+6
786	to	855	+7
856	tp	920	+8
921	to	975	+9
976	to	1030	+10
1031	to	1080	+11
1081	to	1135	+12
1136	to	1180	+13
1181	to	1220	+14
1221	to	1265	+15
1266	to	1305	+16
1306	to	1345	+17
1346	to	1385	+18
1386	to	1420	+19
1421	to	1450	+20
1451	to	1485	+21
1486	to	1520	+22

H-6845 (Field No. 2143)

Aleutian Islands - North Shore Atka Island - Korovin Bay

BAD CROSSINGS

Lat. °	Lat. '	Long. °	Long. '	Day Letter & Pos. No.	Fathoms	Remarks
				80-81J	56	
52	17.6			102-103J (r)	56	
174	29.2			148D (b)	59	on slope, ok
				54-55H (b)	58	
52	17.6			103-104J (r)	59	Indication of shoaler sdg
174	29.9			101-102D (b)	62	on 101-102 D
52	16.3			113-114J (r)	95-92	Weak trace due to roll of ship
174	30.6			102E (b)	98-98	line 102-105E omitted
52	16.0			114J (r)	86-85	
174	30.5			97-98E (b)	88	Same as above
52	14.5			117-118J (r)	40	
174	26.0			20-21E (b)	42	117-118J read too shoal
52	13.6			77-78e (p)	43	
174	21.7			14-15b (p) 188-189 B (6)	38	steep slope here
52	12.8			139-140e (p)	26	
174	19.3			21-22d (p)	28 27	OK
52	16.6			111a (r)	15	
174	21.7			109a (r)	14	on slope
				97a (r)	13	
52	16.7			27-28b (r)	8¼ - 15 18	slope here
174	19.0			58b (r)	18	
52	16.2			48d (r)	3-4/6 4 4/22	
174	14.6			24-25d (r)	4-2/6 to 4 5/6	Improved by adding speed correction of +19%
52	16.5			65-66d (r)	24 19	
174	19.0			24-25b (r)	29	
				26-27b (r)	29	
52	16.6			88-89d (r)	19 & 20 23 + 24	
174	19.0			24-25b (r)	23	
				27-28b (r)	23	

(continued)

BAD CROSSINGS (continued)

Lat. & Long. °	'	Day Letter & Pos. No.	Fathoms	Remarks
52	16.5	93-94d (r)	13-18	smoothed out
174	17.8	61-62d (r)	$10\frac{3}{4}$ - 11	
52	16.6	21-22e (r)	$10\frac{3}{4}$ - 12	
174	19.3	87-88d (r)	~~9 - 9½~~ 11 - 11	OK, added speed cor.
52	16.5	21-22e (r)	29 - 31	
174	19.2	66-67d (r)	~~23 - 24~~ 29 - 28	OK, added speed cor.
52	13.2	105-106e (r)	$8\frac{3}{4}$	
174	17.2	59-60a (r)	3-4/6	OK, shoal on side
52	13.8	41-42E (b)	31-36	
174	23.1	123-124B (b)	37	on slope

In general, D day (r), (HYDROGRAPHER Launch No. 2) appears to be 1 to 3 fms. too shoal at many crossings, but not all. The trend of the entire day is toward the shoaler side. Improved by adding speed correction

Processing Office Notes by:

Edgar E. Smith
Assoc. Cart. Engr.

Approved and forwarded:

F. H. Hardy, Capt., C&GS,
Officer in Charge
Seattle Processing Office

H-6845 (Field No. 2143)

Aleutian Islands - North Shore Atka Island - Korovin Bay

STATISTICS

	Statute Miles Sounding Line	No. of Positions
HYDROGRAPHER	406.6	1580
SURVEYOR	245.4	1389
E. LESTER JONES	414.8	1158
Totals	1066.8	4127

Area in square statute miles 78.5

TIDAL NOTE

To Accompany

HYDROGRAPHIC SURVEY

H-6845 (Field No. 2143)

Aleutian Islands - North Shore Atka Island - Korovin Bay

- -

The portable automatic gages at Martin Harbor were used for the reduction of all soundings.

The plane of mean lower low water corresponds to a reading of 3.0 feet on the tide staff used by the SURVEYOR and E. LESTER JONES; and to 3.7 feet on the staff used by the U.S.S. HYDROGRAPHER. (See special report on tidal data, Project CS-218, 1943, herewith).

Highest tide - - - 7.7 feet on July 15, 1943, on gage used by SURVEYOR and E. LESTER JONES

Lowest tide - - - 1.8 feet on Aug. 14, 1943, on above gage.

Authority - - - - Director's letter dated July 12, 1943.

	SURVEYOR & E. LESTER JONES	HYDROGRAPHER
Latitude	52° 13.5' N	52° 13.1' N
Longitude	174 17.8 W	174 16.7 W

Unalaska Datum

The bench marks of the two stations were connected by levels and have the same datum plane.

H-6845

Korovin Bay - Atka I. - Alaska

LIST OF SIGNALS

Station	Origin
Abe	T-6917a
Ack	T-6918a
Aim	Vol. 19
Ale	T-6918a
All	"
Alpha	"
An	"
Ant	"
Any	"
Argo	"
Art	T-6950
Barto	T-6917a
Bar	"
Bat	"
Bea	T-6950
Bet	T-6917a
Beta	T-6918a
Bid	T-6918b
Big	Vol. 13
Bill	T-6950
Bing	T-6918a
Block	"
Bluff	Vol. 23
Bob	T-6950
Boy	"
Boot	BOOT 1943
Boy	T-6918a
Break	T-6917a
Buck	"
Bur	T-6918a
Buz	"
Cal	T-6918b
Cam	T-6917a
Cat	T-6918a
Cave	"
Clif	"
Cor	T-6917a
Cor	T-6950
Corn	T-6918a
Cow	T-6917a
Cran	T-6950
Cros	T-6918a

Station	Origin
Dan	DAN 1943
Del	T-6917a
Delco	T-6918a
Delta	"
Dia	"
Doc	"
Dome	T-6918b
Dom	"
Dot	T-6950
Drum	Vol. 19
Duck	T-6918b
Rag	T-6918b
East	EAST 1943
Ed	T-6950
Egg	EGG 1943
Elba	T-6918b
Eta	T-6917a
Fag	T-6918a
Fin	T-6918b
Fire	T-6918a
Flag	T-6950
Flor	Vol. 2
Fork	T-6918a
Fran	T-6917a
Front	FRONT 1943
Gaf	T-6918a
Gag	T-6918b
Gal	T-6917a
Gamma	T-6918a
Git	T-6917a
Gon	T-6918b
Gull	"
Hart	T-6918a
Hay	T-6950
Head	"
Hedy	T-6918a
Hep	"
Her	T-6950
High	T-6917a
Hoe	T-6918a
Hop	T-6917a
Hope	T-6918a
Hor	"

Station	Origin
Ice	Vol. 13
Ink	T-6918a
Is	IS 1943
Jack	T-6918b
Jap	T-6917a
Jan	T-6950
Jew	T-6918a
Jim	"
Jive	"
Josh	"
Joy	T-6950
Jug	T-6918b
Kim	T-6917a
Kor	KOROVIN 1943
La	T-6918a
Lan	T-6918b
Las	T-6918a
Leg	T-6918b
Lee	T-6918a
Lic	"
Lit	T-6950
Long	T-6918a
Lone	T-6918b
Lot	T-6917a
Lov	T-6918a
Low	T-6917a
Mars	T-6918a
Mar	MARTIN 1943
Meg	T-6918b
Mid	MID 1943
Mint	T-6918b
Miss	T-6950
Miss	T-6918a
Nan	T-6918a
Nap	"
Noe	"
Nor	"
Not	(see Report)"
Nik	"
Nix	T-6917a

(continued)

H-6845

LIST OF SIGNALS - continued

Station	Origin
Obo	T-6918b
Old	T-6950
Ox	"
Pas	T-6918b
Peak	Vol. 5
Pep	T-6950
Pic	T-6918a
Plane	"
Po	"
Pol	T-6918b
Pup	T-6918a
Quad	T-6918b
Quail	T-6918a
Que	"
Rad	RAD 1943
Ray	T-6918b
Rear	Vol. 13
Rex	T-6950
Rip	T-6918a
Riv	T-6918b
Rok	"
Roy	"
Rub	T-6918a
Salt	SALT 1943
Sam	SAM 1943
Saw	T-6918a
Sharp	"
Sho	"
Sin	T-6918b
Sing	T-6917a
Sis	T-6918a
Sis	T-6950
Ski	SKI 1943
Slip	T-6918a
Slit	"
Sow	"
Sox	"
Spot	SPOT 1943
Star	T-6918b
Take	T-6918a
Term	"
Tent	"
Tes	T-6918b
Tet	"
Tide	T-6950
Tip	T-6918b
Tit	T-6918a
To	"
Us	T-6917a
Uno	T-6918b
Var	T-6918a
Vel	"
Ver	"
Von	T-6917a
Vin	VIN 1943
We	T-6918a
Wes	T-6918b
Why	"
Wig	T-6918a
Wop	"
Wop	Vol. 19
Xit	Vol. 19
Yak	T-6918b
Yum	Vol. 19
Zed	Vol. 19
Zo	T-6918b

Hydrographic Sheet H-6845 Field No. 2143

Origin of Hydrographic Signals

HOT		Located from 2 cuts, pages 51 and 54, Vol. 13, and pinnacle located on Topographic Sheet T-6918b. See sketch furnished by E. B. Brown. See also Descriptive Report. Sq. 17 & 18.
REAR	Cuts	Vol. 13, pages 4, 25, 32, 51 & 52.
BIG	Cuts	Vol. 13, pages 11, 37, 70; Vol. 16, pages 17 & 19.
ICE	Cuts	Vol. 13, pages 15, 32, 38.
BEAR	Cuts	Vol. 15, page 15, and transfer of position from B.S.
WOP	Fix	Vol. 19, page 23.
KIT	Fix	Vol. 19, page 23.
YUM	Fix	Vol. 19, page 23.
ZED	Fix	Vol. 19, page 23.
AIM	Fix	Vol. 19, page 23.
DRUM	Cuts	Vol. 19, pages 5, 7 & 10.
BAR	Fix	Vol. 19, page 23
AMY	Cuts	Vol. 13, pages 8, 15, 31, 32, 34 & 37.
FLOR	Cuts	Vol. 2, pages 8, 9, 10, 11, 12
PEAK	Cuts	Vol. 5, pages 23, 24, 25, 26, 27
BLUFF	Cuts	Vol. 2, page 13

H-6845 (1943)

The list of discrepancies in sounding line crossings on pages 22 and 23 of the descriptive report cites five instances which included "d" day, launch No. 2, April 11, 1943. Inspection of the graph for "d" day revealed a constant 16% reduction in paper speed between position 27 "d" and the end of the day which was 105 "d". This speed change took place after a break in the line where the fathometer was stopped and the record patched. A +19% correction was added to all soundings between 27 "d" and 105 "d". This eliminated all bad crossings and smoothed out the curves affected. The fathometer used was the NK-1. A bar check was made at the beginning of the day but not at the end because of rough seas.

The 808A fathometer No. 47 used aboard the M.V. E. LESTER JONES recorded considerable differences in phase changes throughout the entire period of its operation. These discrepancies in phases are discussed in detail on page 12 of the report. However, the field party mentions that the fathometer was adjusted on June 1, 1943 and that all work prior to June 1 should be corrected as noted, leaving the impression that work after June 1 was correct. Work done after June 1 also required corrections to bring the phases into agreement. These corrections were added by the Processing Office. All corrections have been checked in detail by the verifier. The corrections applied before June 1 are +19 feet on "B" phase and +33 feet on "C" phase. They appear to be constant. After June 1, the differences were smaller but nevertheless appreciable. They were as follows:

F day	June 3, 1943	+ 7 on B
H day	June 19, 1943	+ 7 on B
		+23 on C
K day	July 17, 1943	+ 9 on B
L day	July 30, 1943	+ 9 on B

A. P. Stirni, Nov. 2, 1944
Verifier, Washington Office

RQC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 20, 1944.

~~Division of Hydrography and Topography~~:

Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in
19 volumes of sounding records for

HYDROGRAPHIC SHEET 6845

Locality Korovin Bay, North Coast Atka I., Aleutian Islands

Chief of Party: C. M. Durgin, E. B. Roberts and W. M. Scaife in 1943
Plane of reference is mean lower low water
3.7 ft. on tide staff at Martin Harbor (east side)
7.9 ft. below B. M. 1 (1943) at east side station
3.0 ft. on tide staff at Martin Harbor (west side)
9.1 ft. below B. M. 1 (1943) at west side station

Height of higher high water above plane of reference is 3.3 feet.

(Tide is chiefly diurnal.)

Condition of records satisfactory except as noted below:

C. K. Green

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154827

GEOGRAPHIC NAMES

Survey No. H6845

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Alaska										1
Aleutian Islands										2
Bering Sea								(USGB)		3
Cape Korovin			(520	740)						4
Korovin Bay			"					"		5
Martin Harbor			"		(Also location of tide staff)					6
Sarana Cove			"							7
Egg Pt.			"							8
Egg Bay			(520	745)						9
Egg I.			(520	740)						10
Starichkof Reef			(520	745)						11
Banner Pt.			"							12
Salt I			"							13
Atka I			(520	740)				(U.S.G.B)		14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27
										M 234

L. Heck 12/6/44

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H6845

Records accompanying survey:

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

bomb vols. .....; graphic recorder rolls .....;

special reports, etc. .....

.....

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

Number of positions on sheet		4127	
Number of positions checked		41	
Number of positions revised		3	
Number of soundings recorded		25000	(Estimate)
Number of soundings revised (refers to depth only)		63	
Number of soundings erroneously spaced		24	
Number of signals erroneously plotted or transferred		—	
Topographic details	Time	16 hrs.	
Junctions	Time	.....	
Verification of soundings from graphic record	Time	24 hrs	

Verification by A. R. STIRNI Total time 203 Date Nov. 2, 1944

Review by Harold W. Murray Time 43" Date Dec. 6, 1944

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 6845

Field No. 2143

Alaska, Aleutian Islands, Atka Islands, Korovin Bay
Surveyed May - August 1943; Scales 1:10,000 and 1:20,000
Instructions dated February 3, 1938
Project 218

Soundings:

Hand lead
808 Fathometer
Dorsey Fathometer

Control:

Three-point fix on shore signals

Chief of Party - C. M. Durgin; E. B. Roberts, W. M. Scaife
Surveyed by - L. C. Wilder; E. B. Roberts; L. S. Hubbard; W. F. Malnate; C. A. George
Protracted by - R. M. Sylar
Soundings plotted by - R. M. Sylar
Verified and inked by - A. R. Stirni
Reviewed by - Harold W. Murray
Inspected by - H. R. Edmonston, November 13, 1944

1. Shoreline and Signals

The shoreline and signals originate with plane table surveys T-6917a, T-6918a&b, and T-6950 of 1943.

2. Depth Curves and Submarine Relief

The usual depth curves are satisfactorily delineated. The 75-fm. curve was added in brown and delineates the deeper portion of the bay. The developed 57-fm. shoal rising from depths of about 100 fm. in Lat. 52°16.7', Long. 174°30.75' is most unusual in that it rises from the bottom axis of the entrance to the bay.

3. Sounding Line Crossings

Agreement of sounding line crossings is satisfactory. (See notes in Descriptive Report, pages 22 and 23)

4. Junctions with Adjacent Surveys

Junctions with other surveys will be considered when that work is received from the field.

5. Comparison with Prior Surveys

No prior surveys have been made in this area.

6. Comparison with Chart 9136 (New Print date 10-25-43)

a. Hydrography

Charted hydrography originates with advance information from the present survey boat sheets (Bps. 37173, 37489, 37490 (1942) and Chart Ltr. 516 of 1943). The foregoing material is unreduced for tides; however, an approximate correction of 3 feet was applied arbitrarily to critical soundings when applied to the chart. Comparison with the completed smooth sheet reveals a number of discrepancies of 1 to 10 fathoms, the more important of which are listed below. It may be stated generally that the present survey depths are usually deeper.

Charted Sdg.	Present Survey	Latitude	Longitude
83 fm.	93 fm.	52°16.7'	174°30.1'
112 "	108 "	15.7'	28.5'
9 "	11 "	16.6'	19.36'
12 "	14 "	16.0'	15.3'
7 "	8½"	13.48'	16.84'
6 "	9¼"	12.79'	17.0'
59 "	64 "	14.85'	20.6'
40 "	48 "	14.5'	23.7'
28 "	38 "	13.8'	28.0'

Variations of 1 or 2 fm. are also noted in least depths on shoals and in the inshore depths fringing the shoreline. Variations also exist in plotting of soundings at ends of lines or on turns and also rock details and portions of low water lines. The present survey supersedes the foregoing charted material.

b. Aids to Navigation.

The present survey shows several aids to navigation (not charted) which may or may not be currently maintained. Three temporary mooring buoys for seaplanes are shown in Lat. 52°17', Long. 174°20'. In the south arm of Sarana Cove, one mooring buoy and three standard buoys are shown. The latter mark important shoal areas.

7. Compliance with Project Instructions

Satisfactory.

8. Condition of Survey

It is of interest to note pages 12 and 29 of the Descriptive Report wherein it is noted that the change of phase from A to B scales and B to C required corrections of plus 19 and 33 feet, respectively, on the 808A Fathometer No. 47 used aboard the M.V.E.LESTER JONES.

9. Additional Field Work Recommended

The present survey is the result of the cooperation of several field parties and the results obtained are excellent. Since the hydrographer, however, apparently did not have sufficient time to develop the following shoal areas, it would be desirable to develop or wire drag them at some future period.

		Latitude	Longitude
a.	10-1/4 fm.	51°13.3'	174°20.34'
b.	10-1/2 "	13.07'	20.97'
c.	11 "	13.67'	24.92'
d.	11 "	13.62'	26.18'
e.	9 "	13.76'	26.86'

10. Superseded Surveys

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

Examined and approved:

Robert W Ward
Chief, Surveys Branch

T. S. Gordon
Chief, Division of Charts

Earl O. Heaton
Chief, Section of Hydrography

G Rude
Chief, Division of Coastal Surveys

applied to Chart Cor. 8862, and 9107 Jan. 1946 H.E.M.

Partially " " " 9136 Apr. 14, 1945 J. M. A.

Fully applied to chart 9136 11/13/69 H. Schantz