

5761

U. S. COAST & GEODETIC SURVEY
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FORM 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
....., Director

State: ALASKA ✓

DESCRIPTIVE REPORT

Topographic } Sheet No. 4234 ✓
Hydrographic }

LOCALITY

ALEUTIAN ISLANDS, ~~NORTHWEST OF~~
~~KRENITZEN ISLANDS~~

Unimak Pass to Avatonak Strait

U.S.C. & G.S.S. SURVEYOR

1934 ✓

CHIEF OF PARTY

A.M. SOBIERALSKI,

U. S. GOVERNMENT PRINTING OFFICE: 1928

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. 4234

REGISTER NO. 5761

State ALASKA

General locality ALEUTIAN ISLANDS

Locality Unimak Pass to Avatonak Strait
~~NORTHWEST OF KODIAK ISLANDS~~

Scale 1/40,000 Date of survey August to October, 1934

Vessel U.S.C. & G.S.S. SURVEYOR

Chief of Party A.M. SOBIERASKI

Surveyed by A.M.S., L.C.W., and R.C.R.

Protracted by E.H. SHERIDAN

Soundings penciled by E.H. SHERIDAN

Soundings in fathoms feet

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by Mrs. Olsen

Verified by H. Evans

Instructions dated APRIL 13, 1934

Remarks:

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET H-4234 ✓

SCALE 1/40,000 ✓

UNIMAK PASS, SOUTHERN PART.

U. S. C. & G. S. S. SURVEYOR -o- A.M.SOBIERALSKI, COMMANDING.

Date of instructions: April 13, 1934, Project HT-176, 1934.

Limits: This sheet covers the southern part of Unimak Pass, from Akun Island to Unimak Island, northward of Tigalda and Ugamak Islands. The inshore areas along the northern shores of these islands and along the Unimak Island shore have not been surveyed.

Methods: The work was done on a scale of 1/80,000 but smooth plotting was done on a scale of 1/40,000 which necessitated a sheet slightly in excess of 60 inches in length. Much of the work was done with approximate locations of signals, before final positions had been determined. This fact combined with the strong currents, made it difficult to run straight lines.

All sounding on this sheet was done with fathometer with occasional vertical casts for comparison and to obtain bottom specimens.

The fathometer soundings were corrected for temperature and salinity in accordance with the Hydrographic Manual.

Hydrographic Features: The general character of the configuration of the bottom agrees with H-2542. The deep extending northeastward from Derbin Strait was found not to be continuous. Comparison with chart 8860 however, indicates that the line of soundings extending northwestward from the east end of Ugamak Island is erroneous. The source of these soundings is unknown, as they do not appear on H-2542. As the latter sheet contains only a few scattered soundings, it is recommended that this survey supersede it in part.. *H3307

As the soundings in Unimak Pass will be of very great importance to shipping it is recommended that the verification of this sheet and the charting of the soundings be expedited. ✓

Important Soundings: In Latitude $54^{\circ} 09.8'$ Longitude $165^{\circ} 11.8'$, a 16 fathom sounding falls outside of a 12 fathom sounding shown on H-2542. The development of the area inshore may disclose a danger in this vicinity. *The 12 fath. sounding on H-2542 is outside limits of this sheet. JGL*

In Latitude $54^{\circ} 17.2'$ Longitude $164^{\circ} 56.0'$ a 24 fathom sounding was obtained. This position agrees closely with a 20 fathom sounding on the chart, but it is believed the development is close enough to discredit the other soundings charted in this vicinity. *re-20 fath. see review par. 7a. JGL*

^{14.} An 18 fathom sounding in Latitude $54^{\circ} 10.3'$ Longitude $164^{\circ} 44.7'$ probably defines the eastern limit of a ridge extending off the eastern end of Ugamak Island. ✓

Currents: On account of the influence of the various passes, the direction of the currents is very irregular. A vessel proceeding towards Avatnak Strait will experience a set when off Ugamak Strait and off Derbin Strait. When crossing the deep northward of Derbin Strait which is usually marked by tide rips, a strong set in the direction of the axis of the deep was often experienced. Only weak currents were noted along the north shore of Tigalda Island, but further to the northward strong currents setting towards Avatnak Strait were encountered. ✓

Strong currents sweep around the east end of Ugamak Island and heavy tide rips occur here. It is advisable to give this point a berth of 2 miles. ✓

Hydrographic Signals: The positions of the hydrographic signals Moun, Sharp and Blank were determined on H-8134 (Field number) and transferred to this sheet. ✓

Distortion: Many of the positions on this sheet were plotted with very distant signals. A slight distortion of the sheet may therefore cause a considerable displacement of the positions. It is therefore recommended that if a uniform displacement to any line is noted, a careful examination of the sheet for distortion be made, before shifting the positions. ✓

Respectfully submitted,

A.M. Sobieralski
A.M. SOBIERALSKI, C.

CHIEF OF PARTY, C. & G.S.

Approved, forwarded:

A.M. SOBIERALSKI,
CHIEF OF PARTY, C. & G.S.

STATISTICS

HYDROGRAPHIC SHEET FIELD No. 4234.

DATE	VOLUME	DAY	STATUTE MILES	POSITIONS	SOUNDINGS
8-6-1934	1	A	121.1	195	1409
8-9-1934	1-2	B	85.1	120	841
8-18-1934	2	C	30.5	45	333
8-20-1934	2	D	58.0	98	569
8-21-1934	2-3	E	66.1	111	679
8-22-1934	3	F	64.2	100	658
8-24-1934	3-4	G	130.7	192	1309
8-25-1934	4	H	26.0	28	225
9-6-1934	4	J	6.8	9	83
9-7-1934	4	K	65.0	95	647
9-8-1934	4-5	L	39.0	71	423
9-15-1934	5	M	71.8	135	858
9-17-1934	5	N	34.5	44	237
9-21-1934	5	P	8.6	16	87
10-7-1934	5-6	R	34.5	57	375
10-9-1934	6	S	12.5	22	138
			<u>854.4</u>	<u>1345</u>	<u>8871</u>

HYDROGRAPHIC SURVEY NO. H5761

Smooth Sheet 1

Boat Sheet _____

Sounding Records 6 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes in Vol. 1

Landmarks for Charts (Form 567) See letter 524 (1935)

Statistics Yes

Approved by Chief of Party A. M. Sobieralski

Recoverable Station Cards (Form 524) _____

Special Chart for Lighthouse Service
(Circular Nov. 30, 1933) _____

Remarks _____

FIELD RECORDS SECTION

Verification Report on H-5761

July 9, 1935.

Verified by T. S. Evans
Inked by Mrs. Olsen.

1. The records conform to requirements. However, with the absence of the boat sheet, not yet received, the verifier does not feel that an adequate verification has been made. Positions that appeared doubtful were checked, and one was re-plotted: 3M, lat. 54-12', long. 165-01'. ✓
2. The usual depth curves are complete within the limits of the survey. The curves appearing are the 20, 50, and 100 fm., most of which are broken at the edges of the survey, due to the offshore nature of the sheet. ✓
3. The field plotting was incomplete in the following details: The fathometer sdgs. at VC positions were not plotted. The shoreline was omitted from the sheet. ✓
4. Additional work by the verifier consisted of replotting pos. 3M, para. 1; plotting fathometer sdgs. at VC positions, para. 3; transferring shoreline from 4 topo. sheets: T-2546 & 2547 (both 1901); T-4917 & 4918 (both 1934). Station GAMO, lat. 54-14', long. 164-48', did not fall within the shoreline from T-2546, which is the only available topo. in this location. The plotting of the station was checked, and on the basis of the description of the station, on card #4360, the verifier extended the shoreline east to a point, to include the station. ✓
5. The junctions with contemporary surveys, from which overlaps were transferred to this sheet, were satisfactory, viz. H-5759 (1934), on the SE. & SW., H-5760 (1934), on the N. & SE. The remaining overlaps are to be transferred to the adjoining sheets through difference in scale, and subsequent verification. ✓

Respectfully submitted,

T. S. Evans

T. S. Evans.

POST-OFFICE ADDRESS:

Commanding Officer,
U.S.C. & G.S.S. SURVEYOR,
601 Federal Office Bldg.,
Seattle, Wash.

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

5761
Chief 22

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

20
52-C.K.G.
1935 AUG -10
ANSWERED
AUG 29 1935
DIVISION OF CHARTS

July 26, 1935,
Dutch Harbor, Alaska.

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

From: The Commanding Officer,
U.S.C. & G.S.S. SURVEYOR.

Subject: Hydrographic Sheet 42/34 (Field Number).

A considerable amount of additional work has been accomplished within the area covered by the hydrographic sheet field number 42/34, Unimak Pass. As the additional work includes a number of lines of soundings among those run in 1934, it would be desirable to plot them on the same sheet.

Accordingly, it is requested that the above sheet be forwarded by registered mail. Every effort will be made to expedite the work and return the sheet as soon as possible.

If the sheet has not yet been inked, it is also requested that the records be returned, as the additional work indicates that some changes in the fathometer corrections would be desirable. If the sheet has already been inked, it would hardly be advisable to make any changes.

The fathometer corrections applied to last year's work were based on temperature and salinity, and index correction which was derived from an average of all vertical cast comparisons regardless of depth. A new analysis taking averages of all casts but deriving a value for each 10 fathom interval, it is believed, gives a value closer to the true depth, and would increase the depths on this sheet about 1 fathom, which would make better agreement with the additional work of this season.

A.M. Sobieralski
A.M. SOBIERALSKI.
Commanding Officer,
U.S.C. & G.S.S. SURVEYOR.

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TIDE NOTE FOR HYDROGRAPHIC SHEET

May 24, 1935

Division of Hydrography and Topography:

✓ Division of Charts: Attention Mr. E. P. Ellis

Tide Reducers are approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 5761

Locality Unimak Pass to Avatanok Strait, Aleutian Islands, Alaska

Chief of Party: A. M. Sobieralski in 1934
Plane of reference is mean lower low water reading
4.6 ft. on tide staff at Tigalda Bay
12.5 ft. below B.M. 1

3.7 ft. on tide staff at Trident Bay
5.9 ft. below B. M. 1

Height mean higher high water above plane of reference is 3.2 feet at
Tigalda Bay; 4.3 feet at Trident Bay.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5761 (1934) - FIELD NO. 4234

Unimak Pass to Avatanak Strait, Aleutian Islands, Alaska
Surveyed in August to October, 1934
Instructions dated April 13, 1934 (SURVEYOR)

Fathometer Soundings.

3 Point Fixes on Shore Signals.

Chief of Party - A. M. Sobieralski.
Surveyed by - A. M. Sobieralski, L. C. W. and R. C. R.
Protracted by - E. H. Sheridan.
Soundings penciled by - E. H. Sheridan.
Verified by - T. S. Evans.
Inked by - Mrs. Olsen.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. The "boat sheet" has not been received from the field. However, since it is on a scale of 1:80,000 (see D. R., par. 2, page 1), it probably contains work beyond the limits of the present smooth sheet which is on a scale of 1:40,000, and will probably be submitted with adjoining surveys.

The Descriptive Report is complete and adequately covers all matters of importance.

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project.

3. Sounding Line Crossings.

The cross lines, together with the parallel adjacent lines are in good agreement.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn.

5. Junction with Contemporary Surveys.

Satisfactory junctions are made with H-5759 (1934) on the south, with H-5760 (1934) on the southeast and the north.

Other inshore and offshore adjoining sheets have not as yet been received from the field.

The junction with H-5744 (1934) on the west will be considered in the review of that sheet.

6. Comparison with Prior Surveys.

a. H-2542 (1901) and H-3579 (1913-14).

These surveys contain only a few lines of soundings that come within the limits of the present survey. The agreement is satisfactory.

b. H-3307 (1911).

This survey, on a 1:300,000 scale, has but one line of soundings that fall within the limits of the present survey. It extends from lat. $54^{\circ}16'$, long. $164^{\circ}45'$ to lat. $54^{\circ}18'$, long. $164^{\circ}56'$. The soundings (charted) on this line are consistently about 10 fathoms shoaler than the present ones in depths of from 18 to 34 fathoms. An examination of the sounding records shows that the soundings were obtained with Bassett pressure tubes and that the control is based on tangents to various islands 8 to 10 miles away. It is considered that the soundings are either erroneous or considerably out of position or both. They, therefore, should be disregarded in future charting.

7. Comparison with Chart No. 8860.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs and contains no additional information that needs consideration in this review, with the following exception:

- a. The charted 20 fathom sounding at lat. $54^{\circ}17.0'$, long. $164^{\circ}56.2'$ falls on the present survey in depth of 30 fathoms. An examination of all records failed to disclose any authority for this sounding. However, it appeared on the chart simultaneous with the charting of H-3579 (1914), which shows a 29 fathom sounding in this position. It is believed that the 20 fathom sounding was inadvertently charted instead of the 29 fathom sounding. The 20 should, therefore, be removed from the chart.

8. Field Plotting.

The field plotting was satisfactory.

9. Additional Field Work Recommended.

~~No additional work is necessary.~~

The only additional work recommended is a further development of the 16 fathom sounding appearing in lat. $54^{\circ}09.1'$, long. $165^{\circ}09.85'$. A photostat of this vicinity has been forwarded to the field party calling attention to the 16 in order that it may be developed in connection with the survey of the inshore area.

10. Superseding Old Surveys.

Within the area covered the present survey supersedes the following surveys for charting purposes:

H-2542 (1901)	in part.
H-3579 (1913-14)	" "
H-3307 (1911)	" "

11. Reviewed by - John G. Ladd, July 20, 1935.

Inspected by - R. L. Johnston.

Examined and approved:

C. K. Green, *C. K. Green.*
Chief, Section of Field Records.

L. O. Folbert
Chief, Division of Charts.

B. B. Borden
Chief, Section of Field Work.

G. H. Hude
Chief, Division of H. & T.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. .57.61

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

Number of positions on sheet	1345
Number of positions checked	1%
Number of positions revised	1
Number of soundings recorded	8871
Number of soundings revised	0
Number of signals erroneously plotted or transferred	0

Date: July 9, 1935.

Verification by T.S. Ewins
Inked by Mrs. Olsen
Review by — John G. Ladd

Time: 8 Ds. - 2¹/₂ Hrs.
11 Ds. - 1 Hr.
Time: 2 Ds. - 1 Hr.

KTA
?

88-NM

August 29, 1935.

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

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Hydrographic sheet No. 5761 (Field No. 42/34).

Referring to your letter of July 26th, 1935, this office considers it inadvisable to return Hydrographic smooth sheet No. 5761 to the field. The sheet has been inked and verified and two bromides covering the area are being mailed to you this date.

Upon receipt of the records, the additional work mentioned in your letter will be plotted on H-5761 in the office.

The difference between the fathometer corrections as applied in 1934 and 1935 is noted and will be considered when the 1935 work is plotted.

(Signed) R. S. PATTON

Director.

Applied to Charts 8860, 8802 & 9302 - Oct 10, 1935

P.B. Baxter.

25 Jan. 1935

[Signature]

Applied to compiler's desk no. 8720

April, 1943. G.H.S.

5761

(Add'l. Work - 1935)

U. S. COAST & GEODETIC SURVEY
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Acc. No. _____

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic } Sheet No. H-5761
Hydrographic } Additional Work, 1935

State A L A S K A

LOCALITY

NORTHWEST OF KRENITZIN IDS

ALEUTIAN IDS.

193 5

CHIEF OF PARTY

A. M. SOBIERALSKI, H. & G.E.

U. S. GOVERNMENT PRINTING OFFICE

5761

(Add'l. Work 1935)

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. 4234

REGISTER NO. H-5761, Additional Work 1935

State ALASKA

General locality ALEUTIAN ISLANDS

Locality NORTHWEST OF KRENITZIN ISLANDS

Scale 1:40,000 Date of survey MAY TO SEPT., 19 35

Vessel U. S. C. & G. S. S. SURVEYOR

Chief of Party A. M. SOBIERALSKI

Surveyed by A. M. SOBIERALSKI, G. L. BEAN

Protracted by V. M. G., C. J. W., E. H. S.

Soundings penciled by C. J. WAGNER

Soundings in fathoms ~~feet~~

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by G. H. Everett

Verified by G. H. Everett

Instructions dated APR IL 13, 19 34

Remarks:

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SHEET H-5761
ADDITIONAL WORK 1935
SCALE 1-40,000

U. S. C. & G. S. S. SURVEYOR -o- A. M. SOBIERALSKI, COMMANDING

During the season of 1935, additional work was accomplished in the area covered by H-5761 (1934) consisting of a number of splits and an extension of the work northward into Unimak Pass. The soundings have been plotted on tracing cloth and it is suggested that they be replotted on the smooth sheet H-5761.

A tracing of H-5761 was used as a boat sheet, but as the information contained thereon is required for navigation etc. it has been transferred to the DISCOVERER and therefore no boat sheet accompanies this sheet.

Datum:

It is to be noted that geographic positions of all signals on the smooth sheet except those on Unimak Island, were computed from the 1934 observations, while those on Unimak Island viz Scotch Cap Pinnacle, Flagpole and Cape Khituk were computed from the 1901 observations.

In the 1934 hydrography the position of Flagpole 1901 was assumed to be close enough to the Lighthouse at Scotch Cap, and the work was plotted using the position of Flagpole for the position of the light. The position of Scotch Cap Lighthouse as computed from the 1934 observations differs slightly from the position of the flagpole, but for consistency the 1935 work was plotted continuing to use the position of Flagpole. The difference may be due as much to the slight change due to the new observations as to the actual difference between the objects, and since the other stations on Unimak Island remain in the positions determined in 1901, the relation between these stations is perhaps better maintained by retaining the position.

The Flagpole cannot be recovered, and as the light was not built in 1901, it may have occupied the present site of the lighthouse.

Methods:

All the soundings on this sheet are fathometer soundings, corrected for temperature and salinity. Visual fixes were used exclusively. As the weather conditions in this area limit the time when fixes may be obtained, comparatively few vertical casts were obtained.

Methods - continued:

The soundings obtained in 1935 appear to be about two fathoms ~~shallower~~ ^{deeper} than those obtained in 1934. The vertical cast soundings within the limits of the sheet do not furnish any proof of such a discrepancy, but in the overlap with the launch work in the vicinity of Tigalda Island this discrepancy is noticeable. The soundings taken in 1935 are considered more reliable.

The difference is attributed to several causes. In 1934 the installation of the gyro made it necessary to use the filter and make a number of adjustments in the fathometer circuit and considerable trouble was experienced. In the spring of 1935, before any of the soundings were taken, the draft correction was changed and the fathometer adjustments maintained good operating conditions throughout the season.

A study of all the vertical casts taken in 1934 leads to the conclusion that all soundings below 50 fathoms should have 2 fathoms added to them. This change would involve so much work and since it is based on inconclusive data, the change would hardly be warranted.

Dangers:

In Latitude 54 - 16.6, Longitude 165 - 17.3 there is a small bank least depth $11\frac{1}{2}$ fathoms (between positions 66-F and 67-F). This falls among considerably greater depths on the chart and it may be advisable to publish a notice to mariners. — *no*

The current causes heavy swirls in the vicinity.

No other unusual features were disclosed by the survey.

Respectfully submitted,

A. M. Sobieralski

A. M. SOBIERALSKI, H. & G. E.

Commanding Officer,

U. S. C. & G. S. S. SURVEYOR

*

The field party has been requested to furnish all data pertaining to this matter. Further study will be made upon its receipt. (letter dated Oct. 21, 1936)

STATISTICS

HYDROGRAPHIC SHEET H-5761

ADDITIONAL WORK, 1935

<u>Vol.</u>	<u>Day</u>	<u>Date</u>	<u>Positions</u>	<u>Soundings</u>	<u>Statute Miles</u>
1	A	5-28-35	83	331	29.8
1	B	6-21-35	51	288	27.0
1	C	7-18-35	142	686	76.0
1-2	D	7-19-35	284	1500	137.7
2-3	E	7-20-35	152	784	73.0
3	F	9-22-35	<u>39</u>	<u>197</u>	<u>22.0</u>
		Totals:...	751	3786	365.5

LIST OF SIGNALS TO ACCOMPANY
HYDROGRAPHIC SHEET H-5761
ADDITIONAL WORK, 1935

Triangulation Location

Bay	Bay, 1934	Cut	Cut, 1934
Buc	Buc, 1934	Scotch	Scotch Cap
Gamo	Gamo, 1934		Pinnacle, 1901
Tigalda	Tigalda, 1901-34	Kit	Cape Khituk
Breed	Breed, 1901-34		Hill, 1901
Ugamok	Ugamok, 1901-34	Light	Scotch Cap L.H.1934
Gale	Gale, 1934	Aiktak	Aiktak, 1934
Twin	Tall Twin Pinnacle, 1901-34	Die	Die, 1934
Vitus	Vitus, 1934	Ace	Ace, 1934
Basalt	Basalt, 1901-34	Ro	Round Head, 1901-34
Saber	Saber, 1934	Hump	Hump, 1934
Spike	Spike, 1934	Tim	Tim, 1934
Saw	Saw, 1934	Tain	Tain, 1934
		Flat	Flat, 1934

Hydrographic Location

Pike See Vol. 1 Sounding Record Field Sheet No. 4235.

Topographic Location

Field Sheet Letter K-B-34

Dub

Field Sheet Letter K-B-35

Vic

Wal

Field Sheet Letter K-E-35

Moun

Field Sheet Letter K-F-35

Lion

Sharp

HYDROGRAPHIC SURVEY NO. H5761 (Add'l. Work 1935)

Smooth Sheet Yes

Boat Sheet No

Sounding Records 3 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) No

Statistics Yes

Approved by Chief of Party No

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service _____
(Circular Nov. 30, 1933)

Remarks _____

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H5761 (Add'l. Work 1935)

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

Number of positions on sheet	.751..
Number of positions checked	.136..
Number of positions revised	..22..
Number of soundings recorded	.3786..
Number of soundings revised	..15..
Number of signals erroneously plotted or transferred

Date: *Aug. 20, 1936*

Verification by *G.H. Everett*

Time: *38½ hrs*

Review by *John G. Ladd*

Time: *18 "*

VERIFIERS REPORT ON H-5761 (Additional Work)

- I. Records. The records are complete and conform to the general requirements. ✓
- II. Curves. The 50 fathom ~~curve~~ ^{was revised} ~~was revised~~. This work includes a 20 fathom curve on a shoal not shown on original survey. ✓
- III. Plotting. The work was plotted in the field on a tracing and transferred to the smooth sheet in the office. a large percentage of positions were checked with the Gtometer. There was no boat sheet forwarded with the tracing. Most of the revised positions were due to the fact that the field party used the location of "Flagpole" for Δ light. ✓
- IV. Drafting. The following drafting work was accomplished in the office. On H-5761 signals "Moun" and "Sharp" were used as hydro signals. On T-6458 (1925) plane table survey these signals were located by topography. These signals were scaled from topo sheet and replotted on the hydro sheet as "Relocated signals". ✓
- The same applies to signals "Firn" and "Blank". See [T-6457 (1935)]. However these two signals checked the hydro location. They were only changed to appear as topo signals. ✓
- Δ spike and Δ Scotch Cap L.H. were plotted on this sheet. The geographic positions were obtained from the cahier G T Z (G2419) State No. 945. ✓
- The plotting of the above mentioned stations have not been checked. ✓
- The scaled distances for the signals are

Signal Moun Lat. 54-06 - 508 m
(1344)
Long. 165-05 - 722 m
(370)

Signal Sharp Lat. 54-04 - 1039 m
(812)
Long. 165-02 - 350 m
(740)

Signal Lion Lat. 54-08 - 938 m
(919)
Long. 164-54 - 527 m
(560)

The shore line on H-5761 East of Δ Gal was transferred from a 1901 survey (see Virginia Report for sheet). The large discrepancies shown by a comparison with the 1935 Topo survey were corrected. However the shore line on this sheet is not to be considered as accurate.

The hydro signal "Pike" was transferred from the tracing for additional work. The location of the signal is not included in these records. This signal was only used about once for this sheet.

V. Junctions. Where the additional work affected junctions ^{curves on} the adjoining sheets were revised and the additional overlapping soundings were transferred to these sheets.

VI. Remarks. The day letter in the records for additional work is red. However to avoid confusion, a blue color was used in plotting the junctions on this sheet.

Pr. 96-97F were not plotted on this sheet as it is noted in the records that they have been copied in the volumes for sheet (Field No. 4235). See also note Vol. 9 pg. 31

Submitted Aug. 29, 1936
Geo. H. Everett

Remarks

Decisions

	Remarks	Decisions
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GEOGRAPHIC NAMES

Survey No. H5761
(Add'l. Work 1935)

Name on Survey											
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*All names appeared in our Rep. H5761
for additional names
P.R.B.
6/11/36*

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
 PHOTOSTAT OF

} No. H 5761
 (Additional Work-1935)
 No. T

{ received April 28, 1936
 registered May 25, 1936
 verified
 reviewed
 approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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RETURN TO

82	
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C. K. Great

T

x.a.c.

TIDE NOTE FOR HYDROGRAPHIC SHEET

July 6, 1936

Division of Hydrography and Topography:

✓ Division of Charts: Att: Mr. E. P. Ellis

Tide Reducers are approved in
3 volumes of sounding records for

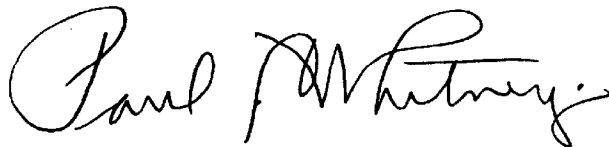
HYDROGRAPHIC SHEET 5761 Additional Work 1935

Locality Northwest of Krenitzin Island, Aleutian Islands.

Chief of Party: A. M. Sobieralski in 1935
Plane of reference is mean lower low water reading
2.5 ft. on tide staff at Tigalda Bay
12.6 ft. below B.M. 1
3.9 ft. on tide staff at Akutan Harbor
13.5 ft. below B. M. 1

Height of mean high water above plane of reference is 2.8 feet at
Tigalda Bay; 3.6 ft. at Akutan Harbor.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5761 (1935) Add'l W'k FIELD NO. 4234

Northwest of Krenitzin Islands, Aleutian Islands, Alaska
Surveyed in 1935 - Scale 1-40,000
Instructions dated April 13, 1934 (SURVEYOR)

Fathometer Soundings

3 Point fixes on shore signals.

Chief of Party - A. M. Sobieralski
Surveyed by - A. M. Sobieralski and G. L. Bean
Protracted by - C. J. Wagner
Soundings Penciled by - C. J. Wagner
Verified and inked by - G. H. Everett

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

The Descriptive Report is complete and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The survey satisfies the instructions for the project except that the new 11 fathom shoal at lat. $54^{\circ}16.65'$, long. $165^{\circ}17.3'$ should have been further developed (see par. 11 this review).

3. Shoreline and Signals.

The shoreline and topographic signals originate with T-2547(1901), T-4917 (1934), T-6456 (1935), T-6457 (1935) and T-6458 (1935). The hydrographic signals originate with H-5761 (1934) and this survey.

4. Soundings Line Crossings.

No regular system of crosslines was run. However the parallel adjacent lines are in good agreement.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn.

6. Junctions with Contemporary Surveys.

- a. The junctions with H-5761 (1934) on the south and west, and H-5760 (1934) on the north are considered in paragraph 10 of this review.
- b. The junctions with H-5948 (1935) on the north and H-5971 (1935) on the northwest are satisfactory although the latter shows a few discrepancies of 1 to 2 fathoms in depth of 80 fathoms.

7. Comparison with Prior Surveys.

a. H-2542 (1901)

This survey on a 1-60,000 scale contains only a single line of soundings that fall within the limits of the present survey. This line, the least depth on which is a 33 fathom sounding at lat. $54^{\circ} 15.85'$, long. $165^{\circ} 15.3'$, falls in depths of about 2 to 3 fathoms deeper on the present survey. From the consistency of the small discrepancies it is apparent that the depths are either slightly in error or out of position. They therefore should be disregarded in future charting.

b. H-3579 (1913-14)

This survey on a scale of 1-180,000 contains only two lines of soundings that fall within the limits of the present survey. The shoaler soundings of these lines are charted of which the shoalest is the 24 fathom sounding at lat. $54^{\circ} 22.8'$, long. $164^{\circ} 58.4'$. These soundings are from 7 to 20 fathoms shoaler than the surrounding depths on the present survey. An examination of the records for H-3579 (1913-14) shows that these soundings were obtained with Bassnett pressure tubes. In view of the known unreliability of soundings obtained by this method together with the complete and adequate development of the area on the present survey, the latter should supersede H-3579 (1913-14) for charting purposes.

8. Comparison with Chart No. 8860 (New Print dated Feb. 21, 1936).

Within the area of the present survey the chart is based on surveys discussed in the preceding paragraphs and contains no additional information that needs consideration in this review.

9. Field Plotting.

The plotting was submitted by the field party on tracing cloth and the transfer of the work to the present smooth sheet was accomplished in the office. The plotting on the tracing cloth was satisfactory.

10. Fathometer Discrepancies.

The junctions with H-5761 (1934) on the south and west and with H-5760 (1934) on the north are not satisfactory. The 1934 work is consistently shoaler than the present survey, the differences averaging about 2 to 3 fathoms in depths of 35 to 80 fathoms. A number of comparative soundings were taken on hydrographic survey H-6110 (1935) along the junction with the 1934 season's work and these comparative soundings tend to verify the correctness of the 1935 work. The Descriptive Report for H-6110 (1935) suggests that the discrepancies may be due to erroneous correction factors used on the 1934 work. The Chief of Party elaborates further on this discrepancy in the Descriptive Report (page 2) for this survey.

He states that a study of all the vertical casts taken in 1934 leads to the conclusion that all soundings below 50 fathoms should be increased by 2 fathoms, but that no actual change is warranted as the deduction is based on inconclusive data. He also suggests that the error in the 1934 work may be due to the number of adjustments made in the fathometer circuit due to the installation of the gyro in 1934. No office verification of the 1934 fathometer correction could be made because the data on which they were based were not submitted. The field party has been requested to furnish this data and the matter will receive further consideration when it is received.

See Note below, Par. 12

11. Additional Field Work Recommended.

- a. The 11 fathom shoal surrounded by depths of 40 fathoms at lat. $54^{\circ}16.65'$, long. $165^{\circ}17.3'$ should be further developed. This is a newly discovered shoal and lies about 6 miles from shore. The shoal was developed with 200 meter lines and without any "feeling around". Adjacent soundings indicate steep slopes, and the least depth may not have been obtained.

Developed. Found 3 1/2 fms. on H-6319 (1937-38). H.W.M. 11/17/36

- b. Note to Compiler. (See below).
~~12.~~ Superseding Old Surveys.

Within the area covered the present survey supersedes the following surveys for charting purposes:

H-2542 (1901) in part
 H-3579 (1913-14) " "

- ⁴
~~13.~~ Reviewed by - John G. Ladd, September 2, 1936.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green
 C. K. Green,
 Chief, Section of Field Records.

L. O. Lobbert
 Chief, Division of Charts.

Fred. L. Peacock
 Chief, Section of Field Work.

Grude
 Chief, Division of H. & T.

12. Note to Compiler.

The compiler's attention is called to the last paragraph of the letter attached to the Descriptive Report of H-6110 (1935) dated Nov. 18, 1936 from the Chief of Party regarding the use of soundings at the junctions of the 1934 and 1935 work. H.W.M. 3/16/38.

- b. The 22 fm. shoal in lat. $54^{\circ}16.8'$, long. $165^{\circ}15.1'$ should be further developed. H.W.M. 5/18/38. Found seven add'l 22's on H-6319 (1937-38). H.W.M. 11/17/36

TIDAL NOTE
TO ACCOMPANY
HYDROGRAPHIC SHEET H-5761
ADDITIONAL WORK 1935

Tides recorded by portable automatic gage No. 135 at Tigalda Bay were used to reduce soundings on sheet through "E" day.

Tigalda Bay:

Latitude 54 - 07.2 N
Longitude 164 - 58.7 W
M L L W (1935)..... 2.5 Ft.
Highest tide recorded: July 15, 1935..... 7.1 "
Lowest tide recorded: Aug. 12, 1935..... 0.7 "

Tides recorded by standard gage No. 212 at Akutan Harbor were used to reduce soundings on this sheet for "F" day.

Akutan Harbor:

Latitude 54 - 07.7 N
Longitude 165 - 48.4 W
M L L W (1934)..... 3.9 Ft.
Highest tide recorded: July 15-16, 1935..... 8.6 "
Lowest tide recorded: June 2-3, 1935..... 2.6 "

Applied to drawing of Chart No. 8860

March 1937 S.B. Maize

Added work 1935, applied to drawing of Chart No. 8802

S.B. Maize June 1937

Applied to compilation chart No. 8720

April 1943. J.H.S.