

6718

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Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. 1141

Register No. H-6718

State S.E. ALASKA

LOCALITY

Yakutat Bay,
~~WESTERN PART OF MONTI BAY~~

~~AND APPROACHES TO MONTI BAY -~~

~~YAKUTAT BAY - GULF OF ALASKA~~

1941

CHIEF OF PARTY

G. C. MATTISON

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO.

H 6718

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. 1141

REGISTER NO. H-6718

State S. E. Alaska

General locality YAKUTAT BAY

Locality MONTI BAY and APPROACHES

Scale 1:10 000 Date of survey June-July, 1941

Vessel Launch No. 3 (STR. SURVEYOR)

Chief of Party G. C. MATTISON

Surveyed by A. C. THORSON

Protracted by R. H. Woodcock

Soundings penciled by R. H. Woodcock

Soundings in fathoms ~~1647~~

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by P. H. Andras

Verified by P. H. Andras

Instructions dated Feb. 2, 1940 Sup. April 1, 1941

Remarks: Smooth sheet and plotting by Seattle Processing Office

DESCRIPTIVE REPORT
to accompany

HYDROGRAPHIC SHEET

REGISTER NO. H-6718

FIELD NO. 1141

APPROACHES TO MONTI BAY (S. SIDE OF YAKUTAT BAY) ALASKA
STR. SURVEYOR

G. C. MATTISON, COMMANDING

JUNE - JULY 1941

SCALE 1:10 000

PROJECT HT-245

INSTRUCTIONS:

The survey was made in accordance with Director's Instructions dated Feb. 2, 1940 and Supplemental Instructions dated April 1, 1941 for project HT-245.

SURVEY METHODS:

Standard methods for launch hydrography were used in the execution of this survey. Soundings were obtained with the 808 depth recorder and reduced in the usual manner for temperature and salinity corrections. (Corrections indicated on Page 2 Vol. 1)

Predicted tides for Sitka, with time and range corrections for Port Mulgrave, were used to reduce soundings for boat-sheet.

LIMITS OF SHEET:

This survey covers the western part of Monti Bay and the approaches from Yakutat Bay to Monti Bay.

The area is bounded by a line from Ocean Cape west to Longitude $139^{\circ} - 55'$, thence north to Latitude $59^{\circ} - 33'$, thence northeast on an irregular line to Latitude $55^{\circ} - 35.5'$ and Longitude $139^{\circ} - 51'$, thence southeast to Latitude $59^{\circ} - 35'$ and Longitude $139^{\circ} - 50'$, thence northeast to Latitude $59^{\circ} - 36.5'$ and Longitude $139^{\circ} - 46.5'$, thence south to Khantaak Island.

The area covered extends into Monti Bay to a junction with Field Sheet 541, on a line from a point on the south shore about 0.7 mile east of the entrance to Ankau Creek to the point on the east side of the entrance to Yakutat Roads.

CONTROL:

The survey was controlled by second and third order triangulation executed during the current field season supplemented by plane table traverses.

DISCREPENCIES:

There were no important discrepancies in soundings noted while executing the survey. The soundings on cross lines checked closely with those on the regular system of

lines. Small discrepancies were probably due to differences between actual and predicted tides.

Some changes should be made in the low water line as transferred from the topographic sheets covering the area where the inshore hydrography was completed. This will include the west coast of Khantaak Island and a short stretch of shoreline just north of the entrance to Ankau Creek.

change made on hydro sheet

ADDITIONAL WORK REQUIRED:

The inshore development was not completed, due to closing the field season for work elsewhere. Additional inshore work required on north side of Khantaak Island and around Ocean Cape and Point Carrew. Off Ocean Cape heavy ground swells prevail even in calm weather and development close to shore will be difficult. At Point Carrew, in heavy weather, breakers were observed as much as 400 meters out from the high water line - point indicated on boat sheet is from sextant cuts taken from points to the eastward. The low water line at Point Carrew extends farther off-shore than indicated on the topographic sheet. Inner line of soundings between Ocean Cape and Point Carrew was close to breaker line.

See item 9 of the review

On the large shoal extending north from Ocean Cape and Point Carrew some additional splits should be run.

The 7 $\frac{1}{2}$ fathom shoal in Latitude 59°- 34.1' and Longitude 139°- 50.6' additional development is required.

DANGERS:

The only dangers to be avoided in entering Monti Bay are the extensive shoals extending north from Point Carrew and Ocean Cape and the shoal extending west from the northwest point of Khantaak Island. The deep-water channel between these two shoal areas is free of dangers.

ANCHORAGES:

The best anchorage is about 1/4 mile east north-east of the entrance to Ankau Creek in about 27 fathoms of water. In heavy northwest weather smaller steamers can anchor in Yakutat Roads.

JUNCTION WITH ADJOINING SHEETS:

Satisfactory junctions were made with Field Sheet 541 in Monti Bay and with 2341 to the north.

the south-west Δ H-6721 (1941)

SHOALS AND COMPARISON WITH PREVIOUS SURVEYS:

charted sdgs mentioned have been replaced by depths from present survey.

(See Chart USC&GS No. 8455)

At the northern end of shoal extending north from Ocean Cape in Latitude $59^{\circ}-35.4'$ and Longitude $139^{\circ}-51.2'$ a charted shoal of $8\frac{1}{2}$ fathoms, - least depth found by this party was $7\frac{1}{2}$ fathoms in this area. The ~~maps~~ ^{parigrams} indicate echos coming in at 5 fathoms but investigation showed them to be kelp strays. Buoys were planted and hand lead soundings taken while the 5 fathom returns were coming in indicated the depth to be just greater than 7 fathoms. ✓

In Latitude $59^{\circ}-34.3'$ and Longitude $139^{\circ}-51.65'$ a depth of ~~5- $\frac{2}{16}$~~ fathoms was found. This shoal was not previously charted. ✓

The $6\frac{3}{4}$ fathom charted shoal in Lat. $59^{\circ}-34.73'$ and Longitude $139^{\circ}-52.0'$ was verified. Least depth found was $6\frac{1}{8}$ fathoms. ✓

The $7\frac{1}{4}$ fathom shoal in Latitude $59^{\circ}-34.1$ and Longitude $139^{\circ}-50.6'$ was not previously charted. This area needs additional developement. ✓

The charted shoal, 5 fathoms, in Latitude $59^{\circ}-33.23'$ and Longitude $139^{\circ}-53.8$ was not verified. The bottom in this immediate area is flat with depths of ~~14~~ to 16 fathoms and no indication of a shoal. *5 fm. sdg erroneous. should be 15 fm.* ✓

Outside of the charted 10 fathom curve in the vicinity of a charted $9\frac{3}{4}$ fathom shoal in Lat. $59^{\circ}-32.8'$ and Longitude $139^{\circ}-55'$, there is an extensive shoal with least depth of $6\frac{2}{6}$ fathoms. Additional developement in this area was made by the Str. Surveyor on Field Sheet No. 2441. *H-6721 (1941)* ✓

An extensive shoal lies west of the west end of Khantaak Island. Least depth of $2\frac{4}{6}$ fathoms on this shoal lies in Latitude $54^{\circ}-34.8'$ and Longitude $139^{\circ}-48.7'$. ✓

Southeast of Point Turner in mid-channel the bromide of previous survey indicates greater depths than those found by this survey party. ✓

Respectfully submitted,

A. C. Thorson

A. C. Thorson,
H. & G. Engr.

Approved and forwarded:

G. C. Mattison
G. C. Mattison, H&G Engr.
Chief of Party.

* Changes in red by Processing Office from smooth sheet.

TABLE OF STATISTICS

| <u>Date</u> | <u>Day</u> | <u>Letter</u> | <u>Number of Soundings</u> | <u>Number of Positions</u> | <u>Statute Miles Of Sounding Lines</u> |
|-------------|------------|---------------|----------------------------|----------------------------|--|
| June | 22 | a | 543 | 94 | 18.5 |
| " | 23 | b | 634 | 85 | 15.4 |
| " | 24 | c | 1602 | 233 | 43.2 |
| " | 25 | d | 1579 | 251 | 39.6 |
| " | 26 | e | 356 | 45 | 9.4 |
| " | 27 | f | 321 | 50 | 7.0 |
| " | 28 | g | 1052 | 182 | 34.2 |
| " | 29 | h | 1798 | 304 | 44.3 |
| " | 30 | j | 728 | 136 | 17.7 |
| July | 9 | k | 1827 | 282 | 45.4 |
| " | 10 | l | 1339 | 219 | 31.5 |
| " | 11 | m | 1647 | 312 | 39.0 |
| " | 12 | n | 547 | 96 | 12.7 |
| " | 15 | p | 527 | 96 | 11.6 |
| <hr/> | | | | | |
| TOTALS | 14 | | 14505 | 2385 | 369.5 |

Square Statute Miles of Hydrography..... 12.0

T I D A L D A T A

HYDROGRAPHIC SHEET

FIELD NO. 1141

MONTI BAY AND APPROACHES

YAKUTAT, S.E. ALASKA

Standard Tide Gage No. ⁴⁰³~~362~~

Yakutat, Alaska

Latitude 59°- 32.8'

Longitude 139°- 44.1'

Mean Lower Low Water on Staff..... 3.3 Feet

Highest tide on Staff

Lowest Tide on Staff

Sheet 1141 (H-6718)

YAKUTAT, ALASKA, 1941, SURVEYOR

Additional Notes by Processing Office.

SURVEY METHODS:

As noted under this heading the predicted tides were used for the boat sheets. For the smoth sheet the actual tides as recorded on the Standard Gage on the cannery dock at Yakutat were used.

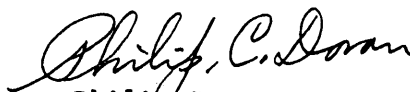
GEOGRAPHIC NAMES:

No new names are needed in this area. All names used are as shown on Coast Survey charts or Coast Pilots.

NOTES :

This report was just written by Mr. Thorson while in the Processing Office and covers the matter of shoals and additional work very completely. Records were in good order.

This is the 2nd sheet of the Yakutat group sent to the office under the priority orders. It connects the 5,000 sheet (H-6717), (1941) inner Monti Bay, with the 20,000 sheets in the large body of Yakutat Bay.



Philip C. Doran,
Officer in Charge,
Seattle Processing Office.

CROSSINGS :

Cross line 86"j" to 90"j" seems to run about
1 fathom too shoal in comparison with the lines it crosses
(59°-33.3' and 139°-46.5' to 59°-32.88' and 139°-47.4')

*shoaler
sides
plotted*

Line 308m to 309m seems to be too close to the
shore. The 2-5-71/4-9 and 9½ fathom soundings look as though
they should be further off shore. (59°-32.7' and 139°-47.6')

*shoaler
sides
plotted*

SHEET 1141 (H-6718)

YAKUTAT, ALASKA, 1941 SURVEYOR

SIGNALS USED ON HYDRO SHEET.

Triangulation Stations

Arest 1941
Davis 1941
Near 1941
Khantaak Id. Lt. 1941 Lit
Duck 1941
Blood 1941
Monti 1941
ard 1941
Carrow-2, 1941
Ocean Cape-2, 1906-1941
Ankau-2, 1941

T-6830 a

Topo Sheet "A" 1941

| | | | |
|-------|-----|-----|-----|
| Zim | Der | Bul | Gib |
| Bet | Wat | Ump | Net |
| Ø Dar | Leg | Sam | |

T-6830 b

Topo Sheet "B" 1941

| | | | | | |
|------|-----|--------------------|-------|------|-------------------|
| Rum | La | Old | Drum | Tree | Too |
| Twin | No | Say Spy | Cross | Out | Um |
| Sal | Squ | Fish | Stu | Ø Nu | <u>Lighthouse</u> |
| | | | | | <u>HI</u> |

Topo Sheet "C" 1941

| | | | |
|-----|------|-----|------|
| Cus | Red | Tip | Flag |
| Win | Per | Tri | Sam |
| Bac | Lean | Rec | |

RCC
HAR

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 10, 1942

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: Mr. H. R. Edmonston.

Plane of reference approved in
10 volumes of sounding records for

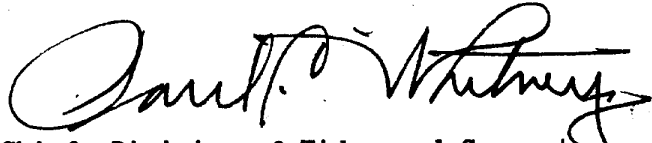
HYDROGRAPHIC SHEET 6718

Locality Monti Bay and Approaches, Yakutat Bay, Southeast Alaska.

Chief of Party: G. C. Mattison in 1941
Plane of reference is mean lower low water reading
3.3ft. on tide staff at Yakutat
28.3ft. below B. M. 1

Height of mean high water above plane of reference is 9.2 feet.

Condition of records satisfactory except as noted below:


Chief, Division of Tides and Currents

GEOGRAPHIC NAMES
 Survey No. **H6713**

| Name on Survey | On Chart No. | | On previous survey No. | | On U. S. quadrangle Maps | | From local information | | On local Maps | | P. O. Guide or Map | | Rand McNally Atlas | | U. S. Light List | |
|------------------------------|--------------|----|------------------------|---|--------------------------|---|------------------------|---|---------------|--|--------------------|--|--------------------|--|------------------|----|
| | A, | B, | C, | D | E | F | G | H | K | | | | | | | |
| <u>Ankau Creek</u> ✓ | | | | | | | | | | | | | | | | 1 |
| <u>Cape Phipps Peninsula</u> | | | | | | | | | | | | | | | | 2 |
| <u>Carrew Point</u> | | | | | | | | | | | | | | | | 3 |
| <u>Khantaak Island</u> | | | | | | | | | | | | | | | | 4 |
| <u>Ocean Cape</u> ✓ | | | | | | | | | | | | | | | | 5 |
| <u>Phipps Peninsula</u> | | | | | | | | | | | | | | | | 6 |
| <u>Point Turner</u> | | | | | | | | | | | | | | | | 7 |
| <u>Monti Bay</u> | | | | | | | | | | | | | | | | 8 |
| <u>Yakutat</u> | | | | | | | | | | | | | | | | 9 |
| <u>Yakutat Bay</u> | | | | | | | | | | | | | | | | 10 |
| <u>Yakutat Roads</u> | | | | | | | | | | | | | | | | 11 |
| <u>Pt. Munoz</u> | | | | | | | | | | | | | | | | 12 |
| | | | | | | | | | | | | | | | | 13 |
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| | | | | | | | | | | | | | | | | 26 |
| | | | | | | | | | | | | | | | | 27 |

Names underlined in red approved
 by L. STECK on 8/25/42

Remarks

Decisions

| | | |
|----|---|----------------|
| 1 | | 595395 U.S.G.B |
| 2 | | " |
| 3 | | " |
| 4 | | 595395 |
| 5 | | " |
| 6 | | |
| 7 | | " |
| 8 | Pending with U.S.G.B for Montic Bay or De Montic Bay | 595395 |
| 9 | Location of tide staff | " |
| 10 | | U.S.G.B |
| 11 | | " |
| 12 | | " |
| 13 | | |
| 14 | | |
| 15 | | |
| 16 | | |
| 17 | | |
| 18 | | |
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| 20 | | |
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| 24 | | |
| 25 | | |
| 26 | | |
| 27 | | |

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6713**

Records accompanying survey:

Boat sheets ^{one}.; sounding vols. ⁽¹⁰⁾.; wire drag vols.;
bomb vols.; graphic recorder rolls ⁽³⁾.;
special reports, etc. ~~..1 overlay tracing filed with descriptive report.~~

.....

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

| | |
|---|-------------------|
| Number of positions on sheet | 2385. |
| Number of positions checked | .166. |
| Number of positions revised | ..8.. |
| Number of soundings recorded | 14,505 |
| Number of soundings revised (refers to depth only) | ..20. |
| Number of soundings erroneously spaced | ..7.. |
| Number of signals erroneously plotted or transferred | ..0.. |
| Topographic details | Time ..3.. |
| Junctions | Time ..12.. |
| Verification of soundings from graphic record | Time ..7.. |

Verification by *P.H. Andrus*..... Total time *228 hrs.* Date *6-23-42.*

Review by *R.H. Carstens*..... Time *22^{4r}*..... Date *Aug 17, 1942*

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H **H6713**
~~No. 6713~~

received March 30, 1942
 registered April 9, 1942
 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 |
|-------|------|-----------|--------------------------|
| 20 | | | |
| 22 | | | |
| 24 | | | |
| 25 | | | |
| 26 | | | |
| 30 | | | |
| 40 | | | |
| 62 | | | |
| 63 | | | |
| 82 | | | |
| ✓ 83 | Pg 3 | <i>RW</i> | <i>Note on Standard.</i> |
| 88 | | | |
| 90 | | | |
| | | | |
| | | | |

RETURN TO

| | |
|----|------------|
| 82 | R. W. Knox |
|----|------------|

RW

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTER NO. 6718

Field No. 1141

S. E. Alaska; Yakutat Bay; Monti Bay and Approaches
Surveyed in June - July 1941; Scale 1:10,000
Instructions dated February 2, 1940; April 1, 1941

Soundings: Depth
Recorder 808

Control: Visual Fixes on
Shore Signals

Chief of Party - G. C. Mattison
Surveyed by - A. C. Thorson
Protracted by - R. H. Woodcock
Soundings plotted by - R. H. Woodcock
Verified and inked by - P. H. Andros
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston

1. Shoreline and Signals

The shoreline and signals originate with T-6830a&b (1941) and topographic sheet field No. C-1941 (only tracing of sheet is available - sheet not registered).

2. Sounding Line Crossings

Satisfactory.

3. Depth Curves

Satisfactory except in uncompleted inshore areas.

4. Junctions with Contemporary Surveys

Satisfactory.

5. Comparison with Prior Surveys

H-2157 (1892) 1:20,000

This survey covers the entire area of the present survey. Depth agreement is only fair. In a number of places there are differences in depth of 6-8 fms. and as much as 16 fms. in Lat. $59^{\circ}34.4'$, Long. $139^{\circ}49.3'$. Over the shoal areas, present survey depths are in general 1-3 fms. less than former depths.

The present survey is adequate to disprove the following uncharted shoal soundings:

- (a) A sounding of 6-1/2 fms. falling in present depths of 9-9 $\frac{1}{4}$ fms. in Lat. 59°32.75', Long. 131°53.3'
- (b) A sounding of 6-1/2 fms. falling in present depths of 17-19 fms. in Lat. 59°34.0', Long. 139°51.05'
- (c) A sounding of 11-3/4 fms. falling in present depths of 18-21 fms. in Lat. 59°34.1', Long. 139°51.1'
- (d) A sounding of 30 fms. falling in present depths of 34-36 fms. in Lat. 59°34.35', Long. 139°53.6'
- (e) A sounding of 7 fms. falling in present depths of 10-1 $\frac{1}{4}$ -10 $\frac{3}{4}$ fms. in Lat. 59°35.0', Long. 139°51.85'
- (f) A sounding of 12-3/4 fms. falling in depths of 15-17 fms. in Lat. 59°33.9', Long. 139°50.3'
- (g) A sounding of 5-3/4 fms. falling in present depths of 19-22 fms. in Lat. 59°34.25', Long. 139°48.35'

The present survey is much more closely developed than the previous survey and except for additional bottom characteristics should supersede it in the common area.

6. Comparison with Chart 8455 (Latest Print date 12-19-41)

a. Hydrography

The charted hydrography originates with blueprint 35554 which is a compilation of the soundings from the boat sheets of the present and contemporary surveys. In some cases soundings on the smooth sheet differ by as much as 1 fm. with those on the boat sheet. The sunken rocks charted in Lat. 59°35.7', Long. 139°47.1' and Lat. 59°35.4', Long. 139°47.9' are shown as rocks awash on the smooth sheet.

b. Aids to Navigation

The aids to navigation are in agreement with the charted positions and notations except the buoy C-1, in Lat. 59°33.48', Long. 139°47.1', which has been changed to lighted buoy (FLG)"1" since the survey was accomplished. The buoys satisfactorily mark the features intended.

7. Condition of Survey

Satisfactory.

8. Compliance with Instructions for the Project

Satisfactory except that few bottom characteristics were taken in areas other than in a portion of Monti Bay.

9. Additional Field Work Recommended

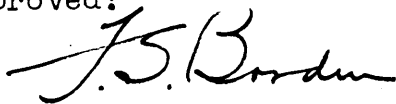
For the completion of this survey sounding lines should be run in the holidays inshore to the north of Khantaak Island and in the vicinity of Ocean Cape and Carrew Point. Additional development is desirable on the shoal in Lat. $59^{\circ}34.1'$, Long. $139^{\circ}50.7'$; and split lines should be run in Lat. $59^{\circ}33.7'$, Long. $139^{\circ}51.4'$ and Lat. $59^{\circ}36.55'$, Long. $139^{\circ}47.0'$.

10. Superseded Surveys


H-2157 (1892) 1:20,000 in part with the exception of bottom characteristics.

Examined and approved:


Chief, Surveys Section


Chief, Division of Charts


Chief, Section of Hydrography


Chief, Division of Coastal Surveys

Applied to chart 8455 - July 1942 - D.V. P. G.
Applied to 10,000 scale plan of 8455 3-19-45 P.H.L.
Examined after review for relation to
application to chart 8455 - ^{minor} ~~see~~ corrections
4-9-45 P.H.L.
Applied after review to chart 8002. May 9, 1947 D.H. Benson