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Form 501
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: SW Alaska

11-5613

U. S. COAST AND GEODETIC SURVEY
L. & A.
Acc. No.

DESCRIPTIVE REPORT.

Hyd. Sheet No. 4496

LOCALITY:

Alaska Pen.

Thin Pt. to Marzhovoi Bay

1925

CHIEF OF PARTY:

R. F. Luce

Hyd 4496

Location of Hydrographic Signals by Sextant Angles.
Hydrographic Sheet "D" Alaska, 1925 - R.F. Luce, Sta. Pioneer

These signals were located by sextant fixes, and were taken in the order listed from Δ Kelp to Δ Bal.

Note:— The names were later changed by the party doing the hydrography.

Signal "Bal":— Δ Kelp - Δ Amagat 139° 30' ✓
L. Tan. Amagat I. - Δ Amagat 15° 14' ✓
Umga I - Δ Amagat 73° 55' ✓
 Δ Amagat - Δ New 7° 48' ✓
 Δ Amagat - Δ Sankin I 18° 40' ✓

Signal "Big":— Umga I - Δ Amagat 71° 24' ✓
L. Tan Amagat I - Δ " 14° 44' ✓
 Δ Amagat - Δ New 8° 30' ✓
 Δ New - Δ Sankin I 13° 14' ✓

Signal "Hot":— Umga I - Δ Amagat 69° 10' ✓
 Δ Amagat - Δ New 9° 13' ✓
 Δ New - Summit Egg I 50° 40' ✓

Signal "Lon":— Left Tan. Amagat I - Δ New 25° 24' ✓
 Δ Amagat - Δ New 10° 30' ✓
 Δ New - Summit Egg I 54° 21' ✓

Signal "Two":— \circ Hot - Δ New 117° 46' ✓
L. Tan Amagat I - Δ New 27° 45' ✓
 Δ New - Summit Egg I 60° 04' ✓

Signal "Old" :-
 Umga I - Δ New 67° 09' ✓
 L. Tan. Amagat I - Δ New 27° 48' ✓
 Δ New - Summit Egg I 62° 18' ✓

Signal "Red" :-
 Umga I - Δ New 63° 04' ✓
 L. Tan Amagat I - Δ New 27° 36' ✓
 Δ New - Summit - Egg I. 65° 14' ✓

Signal "Bul" :-
 Umga I - Δ Amagat 44° - 00' ✓
 Δ Amagat. Δ New. 14° - 32' ✓
 Δ New - Summit Egg I. 70° - 25' ✓

Descriptive Report to accompany Hydrographic Sheets - *Boat sheets*
"D" & "D₂", Inshore hydrography, Morzhovoi Bay - Thin Point, Aaa.

Instructions:

Complying with instructions to the Commanding Officer, Steamer Pioneer, dated March 20, 1925, paragraphs 3, 17, 18 and 25 the inshore hydrography between Morzhovoi Bay and Thin Point, Alaska Peninsula was completed making a junction with sheet H 4315, and with the off shore work on sheet H4301.

Spacing:

In general the sounding lines were run 300 meters apart with lines closer across the Egg Island channel and on the shoal in Thin Point cove. Lines were run normal to the shore. ✓

Soundings:

Soundings were either taken with the hand sounding machine or the hand lead in the motorsailers. Machine soundings were taken in depths over 10 fathoms and hand lead soundings in the shoaler water. All soundings were up and down. ✓

Bottom:

From Egg Island eastward to about Δ Chil the bottom is steep-to while continuing to the eastward in particular in Thin Point Cove the bottom is very even and flat with a very gradual slope to shore.

The channel back of Egg Island is closed, and thick kelp abounds there. ||

4 About 0.7 mile 80° True from Δ Low is a spot with 1 5/6 fathoms of water, and rocky. Extensive kelp makes out from Δ Low and covering this spot.

A ridge makes out from Δ Hill about 215° True. On the outer end of this ridge 1.3 miles 219° True from Δ Hill is a lump with about 2 fathoms of water; also 1.5 miles 207° True from the same station is another lump with about 2 fathoms of water. Bottom in both cases is rocky and water is covered with kelp.

The reef making out SW from Δ Wale bares at half tide and is covered with boulders.

The western end of the sheet is in general sticky and the eastern end either sandy or rocky.

The boat sheets show all the kelp limits.

Anchorage:

In ordinary northerly weather anchorage may be found at entrance to Thin Point Cove, sandy bottom.

#2 Descriptive report Hydrographic sheets "D & D₂" Boat Sheets

Land Features:

Except for the broad valley at Sandy Cove and the generally lowland N and E of Thin Point Cove the beach has a 100 foot cliff and then a gradual rise to Walrus and Frosty Peaks, about 3000 feet and 6000 feet respectively. Walrus is about 2 1/2 miles and Frosty about 7 miles inland.

Scale:

The scale of this sheet is 1:20,000.

Charles Shaw

Charles Shaw,
Lieut., C. & G. Survey.

Sheet inspected by Commanding Officer June 4, 5, 6, 17, 18, Aug. 8, 1925
R. Luce
Comdg Officer

Statistics Sheet No. D

Date 1925	Letter	Volume	Positions	Soundings	Miles Statute	Vessels
June 4	a	1	78	176	12.3	M.S. 8171
" 5	b	1	116	377	22.2	" "
" 6	c	1	86	523	23.7	" "
" 17	d	1-2	93	518	26.4	" "
" 18	c	2	80	459	23.5	" "
" 18	a	3	107	524	41	M.S. 9843

Between Egg Island and Mainland

August 8	f	2	37	66	1.5	M.S. 8171
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597 2643 150.60

An automatic tide gauge at King Cove was used for this work.
 Plane of reference, reading on gauge #
 Lowest tide observed, " " " =
 Highest " " " "

February 11, 1926.

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4496

Locality: S. W. Alaska

Chief of Party: R. F. Ince in 1925

Plane of reference is MLLW
6.7ft. on tide staff at King Cove

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A. M. or P. M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.



Chief, Division of Tides and Currents.

Descriptive Report to accompany Hydrographic Boat Sheet
Sheet " K " - Amagat Id., S. W. Alaska.

4496 (Luce)

Instructions:

In conformity with instructions dated March 20, 1925 paragraph 16 to Comdg. Officer, U. S. S. Pioneer the inshore hydrography of Amagat Island was completed.

Division of work.

The southern half of the inshore hydrography of Amagat Island was done by R. R. Lukens, Chief of Party, in 1924. The hydrographic work done in 1924 and the present year is all on one boat sheet, and in one sounding record accompanying this report.

Soundings.

Sounding was done in 1925 in motorsailer 9843 using hand sounding machine in general in depths over 15 fathoms, and copper centered leadline in depths under 15 fathoms. All soundings were up and down.

The southern and western shore of Amagat Island is steep, the 10 fathom curve being off shore about 200 meters; the northern shore is more gradual, the 10 fathom curve being about 600 fathoms off shore; the eastern shore flares off with a gradual slope with the 10 fathom curve about 400 meters off shore and the slope ending in a general depth of about 20 fathoms.

Soundings on boat sheet are not reduced for tide.

Inshore Dangers.

200 meters off \odot Pri a rock bares at half tide. Two rocks bare at half tide about 100 meters off shore between \odot Al and \odot Lone. Close inshore between \odot Al and \odot Slim there are several submerged rocks and the water is foul.

Off Lying Dangers.

There are no off lying dangers, except the 6 fathom spot 2 miles 206° True from signal Peak on Amagat Id. Kelp.

There is considerable kelp in general well within the 20 fathom curve but off the middle of the northern shore kelp extends about 100 meters wide about 500 meters normal to the shore line.

Signals.

The 1924 signals were recovered. Signal " Ged " was cut in by sextant.

Scale

The scale of this boat sheet is 1:10,000, but it is recommended that in the making of the smooth sheet the Amagat Island hydrography be reduced to the scale of 1:20,000 and transferred to the "Morzhovoi Bay to Thin Point" sheet. This has already been done in the case of the topographic sheet.

Formation

Amagat Island is bold, the southern end being a knob 1065 feet high and the northern end a flat top about 600 feet high and extending nearly half the length of the island. Triangulation station NEW is on a bold rock about 75 feet high, and the intermediate islet upon which station SLIM is located is about 35 feet high.

Sheet & records inspected by Crudy. Officer May 29, 1925

R. F. Puce

Date 1925	Letter	Volume	Positions	Soundings	Miles Statute	Vessels
July 5 (1924)	a	1	85	131	9.0	M.S. #1
May 29(1925)	b	1	85	135	8.5	M.S. 9843

17.5

An automatic tide gauge at King Cove was used for this work.
 Plane of reference, reading on guage?
 Lowest tide observed " " " "
 Highest " " " " "

MAR 1 - 1926

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in
one additional volume of sounding records for

HYDROGRAPHIC SHEET NO. 4496

Locality: S. W. Alaska

Chief of Party: R. R. Lukens in 1924; R. R. Luce in 1925

Plane of reference is M L L W
5.6 ft. on tide staff at King Cove 1924
4.3 " " " " " Ikatan, 1925.

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A. M. or P. M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

No reducers entered by 1925 field party.



Chief, Division of Tides and Currents.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO No. 11-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON April 11, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4496

Thin Point Cove, Alaska Peninsula

Surveyed in 1925

Instructions dated March 20, 1925 (PIONEER)

Chiefs of Party, R. F. Luce, R. R. Lukens.

Surveyed by Charles Shaw, W. Weidlich, O. S. Reading.

Protracted and plotted by Field Officers.

Verified and inked by J. C. MacNab.

1. The records conform to the requirements of the General Instructions except that boats headings by compass were not always given, nor were beginnings and endings of lines always noted.
2. The plan and character of development satisfy the General Instructions.
3. The plan and extent of development satisfy the specific instructions except that indications of shoals should have been closer developed. These will be noted in the paragraph dealing with additional work.
4. The usual depth curves could be completely drawn except in some places inshore where the survey was hampered by the thick growth of kelp.
5. This sheet was plotted in the office by field officers. The protracting was excellent except that in several cases the plotter accepted the boat sheet positions in preference to the records, when there was no reason to question the correctness of the records, nor was the work improved by the acceptance of the boat sheet plotting. The boat sheet plotting should be used only in case of manifest error in the records. Also, soundings were not always plotted according to the time interval.

6. (a) The junction with H. 4315 on the west is satisfactory. It is to be noted that this survey discloses a distinct ridge between the northern end of Egg Island and the mainland, which was entirely missed by the survey on H. 4315.
- (b) The junction with the offshore sheet, H. 4301, is excellent with the exception of one place in Lat. $54^{\circ} 55 \frac{1}{2}'$, Long. $162^{\circ} 48'$, where several 9 and 10 fathom soundings from H. 4301 fall very close to the 17 fathom soundings on H. 4496. There being no reason to doubt the existence of these shoaler soundings, they will be retained, but should be re-examined in the future for possible shoaler water.
- (c) The junction with H. 4374 on the east is satisfactory.
7. Additional work will be required as follows:
- (a) The vicinity of the 9 fathom sounding from H. 4301 as mentioned above in Paragraph 6 (b). Disproved on H-6589 (1940)
Least depth 16 fms.
- (b) About $\frac{3}{4}$ mile south of \triangle Ghil in Lat. $54^{\circ} 55 \frac{1}{2}'$, Long. $162^{\circ} 46 \frac{1}{2}'$, where H. 4301 shows 8 fathom soundings, the area should be developed for possible shoaler water. $\frac{7}{4}$ on H-6589
- (c) From the shore line at \triangle Low (Lat. $54^{\circ} 57 \frac{3}{4}'$, Long. $162^{\circ} 42 \frac{1}{2}'$) to the 5 fathom curve additional lines should be run. Accomplished on H-6589
- (d) The $2 \frac{1}{6}$ fathom shoal about $1 \frac{1}{2}$ miles west of Thin Point should be further investigated. $\frac{1}{2}$ fms. on H-6589.
- (e) The area in the vicinity of the $4 \frac{4}{6}$ fathom sounding in Lat. $54^{\circ} 56 \frac{1}{2}'$, Long. $162^{\circ} 36'$ may need additional development. $\frac{3}{4}$ on H-6589
8. Otherwise the survey is complete.
9. Character and scope of surveying - excellent.
Drafting - good.
10. Reviewed by A. L. Shalowitz, April, 1927.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4496

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4496

State SW Alaska

General locality Alaska Peninsula

Locality Thin Point to Morzhovoi Bay and Amagat L.
~~Morzhovoi Bay to Thin Point to Morzhovoi Bay~~

Chief of party R. F. Luce

Surveyed by Charles Shaw and W. Weidlich

Date of survey June and August 1925

Scale 1:20,000

Soundings in Fathoms

Plane of reference M.L.L.W.

Protracted by Soundings in pencil by

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, Tide books, Marigrams, 2 Boat sheets,

3 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks: The sheet transmitted is the BOAT sheet

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

4301b-4496

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. ~~K 4301b~~ 4496

State SW. Alaska

General locality . Alaska Peninsula. ~~Morzhovoi Bay~~

Locality . Amagat Island (use other title sheet for title)

Chief of party . R. F. Luce . . (R. R. Lukens in 1924)

Surveyed by . . Charles Shaw (O. S. Reading in 1924)

Date of survey July 5th, 1924 and May 29th, 1925

Scale . 1 to 10,000

Soundings in . . Fathoms

Plane of reference . . M.L.L.W.

Protracted by Soundings in pencil by

Inked by Verified by

Records accompanying sheet (check those forwarded):

Des. report, 1 Tide books, 1 Marigrams, 1 Boat sheets,

1 Sounding books, 1 Wire-drag books, 1 Photographs.

Data from other sources affecting sheet

Remarks: The sheet forwarded is the BOAT SHEET