

4190

G. S. G. SURVEY
L. S. A.
JAN 4 - 1922
Am. Rec.

Diag. Ckt. No. 8102-2

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

State: *J. E. Alaska*

11-5613

DESCRIPTIVE REPORT.

Hyd. Sheet No. *4190*

LOCALITY:

Clarence Strait

Muir Sound to

Caamama Point

1921

CHIEF OF PARTY:

J. H. Hawley

4190

DESCRIPTIVE REPORT

To accompany hydrographic sheet number "A".

This sheet shows the off-shore hydrography executed by the Steamer WENONAH in Clarence Strait, S.E. Alaska, from Moira Sound to Cassano Point, in accordance with instructions dated February 11, 1921.

LIMITS: The southern limit of the work on this sheet overlaps and continues the work on sheet 4158 that was completed by the party during the past season, and the northern limit overlaps previous wire drag work extending from Guard Island to Grinball Island. The eastern limit of work joins previous work at the entrance to Nichols Passage and the inshore launch work executed by the party from Ball Head to Guard Island. To the westward the work joins the inshore launch work extending from Moira Sound to Island Point.

SURVEYING METHODS: With the exception of one day, when the leadline was used to develop the shoalest part of 20-fathom bank, all soundings were obtained with the steam sounding machine and registering sheave, the ship being stopped for each sounding and a position obtained. The control for the work was excellent, all signals, with the exception of three topographic stations, being located by triangulation. All plotting was done in the pilot house and the smooth sheet was plotted during the progress of the work through a tracing paper coat sheet placed over the smooth sheet, the position numbers being inked after the end of each day's work. The shoreline shown on the sheet was reduced from the topographic sheets.

GENERAL DESCRIPTION: With the exception of 20-fathom bank and a small area in the vicinity of Guard Island, all work is in deep water and requires no special comment. 20-fathom bank is a large shoal area on the west side of the Strait between Skin and Grinball Islands. It does not extend quite so far east as shown on chart 3102. The shoalest part of this bank was developed with the lead line and the least depth found was 17 fathoms. The bottom in this vicinity is rocky and the bank is extensively used by small fishing vessels engaged in trolling. As many as forty launches were counted on this bank at one time.

The soundings obtained on "D" day from position 33 to position 42 do not agree very well with the overlapping launch soundings. This part of the line was run under unfavorable weather conditions for seeing signals and was re-ran later, both lines being shown on the sheet.

DANGERS: No dangers to navigation were found in the area covered by this sheet. A careful search was made for the rocks shown on chart 3102 a little over a mile southwest of the Wedge Islands and marked "L.D." The locality was carefully watched whenever the ship was in the vicinity and especially during stormy weather when there was considerable swell. Several lines were then run over the location with the launch without finding any indication of the shoal. As it then seemed fairly certain that the rocks do not exist several lines were run with the ship, the submarine sentry being set at 10 fathoms. The lack of any indication of a shoal in this locality, the generally deep water found and the gradual slope indicated by the soundings seem to prove that these rocks do not exist.

S.E.?

LANDMARKS: The description of the country and landmarks in the area covered by this sheet are given in the descriptive reports accompanying the various launch in-shore sheets. While there are numerous mountain peaks, slides, outcropping rocks, etc., in this region, most of them are indefinite and difficult to describe and would be of little value to the navigator if charted. In addition to the lighthouses there are so many islands and well defined points that excellent fixes can be obtained by cross bearings on tangents, ranges, etc., at practically any point in the area covered by the sheet.

ANCHORAGES: The following anchorages were used by the ship while engaged in the work on this sheet:

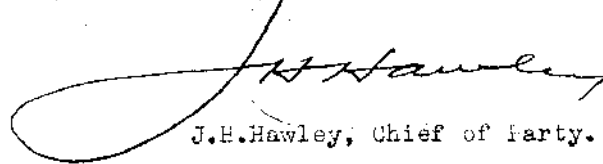
Niblack Anchorage; A well protected anchorage with limited swinging room. While the entrance is very narrow the anchorage is easily entered by means of the chart and present coast pilot notes. The rock shown as P.D. on the chart of the anchorage was located by the party a short distance south of it's reported location and the correct location was reported. The town of Niblack is abandoned and the wharf has been destroyed. During heavy storms the wind blows ^{into the anchorage} with considerable velocity directly parallel with the long axis of the anchorage.

Chasina Anchorage; This anchorage is well protected from southerly winds and the ship was anchored there during several severe storms. The bottom is rocky but no tendency to drag was noted.

Vallena Bay; This anchorage is well protected from southerly winds but some swell makes in during heavy storms.

Saltery Cove; This anchorage was used for the last part of the work. The ship anchored in about the middle of the cove in 13 fathoms, mud bottom. This anchorage was used during very stormy weather and very little wind was felt. It is easily entered by means of the chart, especially after the corrections reported by the party are made, but should not be entered at extreme high water unless necessary as most of the rocks along the sides of the cove are then covered.

Respectfully submitted,



J.H. Hawley, Chief of Party.

STATISTICS SHEET NO. A (field Number)

| Date, 1921 | Letter | Vol. | Positions | Soundings | Miles(stat) | Vessel |
|------------|--------|-------|-----------|-----------|-------------|--------|
| May 13 | A | 1 | 11 | 11 | 7 | Ship |
| " 20 | B | 1 | 45 | 45 | 28 | " |
| " 26 | C | 1 | 48 | 48 | 34 | " |
| June 3 | D | 1 | 42 | 42 | 27.5 | " |
| " 4 | E | 1 | 65 | 65 | 40 | " |
| " 23 | F | 1 | 29 | 29 | 16 | " |
| " 24 | G | 1 | 40 | 40 | 22 | " |
| July 1 | H | 1 | 30 | 30 | 13 | " |
| Aug 24 | J | 1 | 43 | 43 | 21 | " |
| " 24 | J | 2 | 16 | 16 | 4 | " |
| " 25 | K | 1 | 50 | 50 | 37 | " |
| " 26 | L | 2 | 49 | 49 | 31.5 | " |
| Sept 7 | M | 2 | 41 | 41 | 10 | " |
| " 8 | N | 2 | 42 | 42 | 15 | " |
| " 10 | O | 2 | 67 | 67 | 13.5 | " |
| " 12 | P | 2 & 3 | 84 | 87 | 16 | " |
| " 13 | Q | 3 | 63 | 63 | 12 | " |
| " 15 | R | 3 | 128 | 128 | 10 | " |
| " 16 | S | 3 | 113 | 113 | 20 | " |
| " 22 | T | 4 | 161 | 127 | 10.5 | " |
| Oct 13 | U | 4 | 47 | 47 | 9 | " |
| Totals | | | 1094 | 1185 | 405 | |

TIDAL DATA

Hydrographic Sheet No. 1

Soundings in fathoms at M.L.L.W.

Automatic tide gauge at Menefee Anchorage, Moira Sound, used for reduction of soundings north to Chasina Point.

Tide gauge at Vallenar Bay used for reductions on east side of strait north of Chasina Point.

Tide gauge at Clover Bay used for reductions on 20-fathom Bank.

Tide gauge at Saltery Cove, Skowl Arm, used for reduction of one day on 20-fathom Bank.

For other data relative to above gauges see launch sheets.

LIST OF SIGNALS
Hydrographic Sheet No. 4

| Hydrographic Name | Full Name, location, etc. |
|-------------------|---|
| Back | Dist. and out from Station Scott, 1921. |
| Pol | Triangulation station Pol, 1921. |
| Sun | " " Sun, 1912. |
| Big | " " White rock, 1912. |
| Mo | " " Moira Ek. L.H., 1921. |
| Nest | " " Nest, 1912. |
| Wedge | " " Wedge I., 1912. |
| Dol | " " Dol, 1921 |
| Kal | " " Kal, 1921 |
| South | " " Chasina S., 1912. |
| North | " " Chasina N., 1912. |
| Skin | " " Skin I., 1912 |
| Clover | " " Clover, 1921. |
| Land | " " Island pt., 1912 |
| High | " " High Id., 1912 |
| Grin | " " Grindall, 1912 |
| Cam | " " Caamano, 1912 |
| Guard | " " Guard I. L.H., 1912. |
| Val | " " South Vallonar, 1912. |
| Vina | " " Gravina, 1912. |
| Pug | " " Pug, 1921. |
| Slide | " " Slide, 1912. |
| Dall | " " Dall, 1912. |
| Cart | " " McCarty, L.H., 1921. |
| Duncan | " " Duncan, 1912. |
| Hay | Topographic signal, sheet #2, 1921. |
| Nig | " " " #3, 1921. |
| Gab | " " " #3, 1921. |

February 7, 1922.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 4190

Locality: Clarence Strait, S.E. Alaska.

Chief of Party: J. H. Hawley in 1921.

Plane of reference is mean lower low water, reading
7.8 ft. on tide staff at Menfee Anchorage, Moira Sound; 6.3 ft. on tide staff at
Clover Bay; 1.6 ft. on tide staff at Saltery Cove.
8.8 ft. on tide staff at Vallenar Bay.

Condition of records satisfactory except as checked below:
/For reduction of soundings.

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.

Report on the Verification & Sinking of H4190.

The records and notes were complete and clear. The protracting was excellent and plotting good. With a couple exceptions, the shoals appear to have been sufficiently developed, although in the depths of water indicated, such shoals are not likely to be dangerous to navigation unless they lead up to a pinnacle rock.

The sheet was in very good condition, and the drafting followed the general instructions for field work.

Frank M. Albert.

Feb. 14, 1922.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

SECTION OF FIELD RECORDS.

Report on Hydrographic Sheet No. 4190. Surveyed in 1921.
Chief of Party, J. H. Hawley. Surveyed by J. H. Hawley
Protracted by J. H. Hawley. Soundings plotted by E. L.
Evans and W. G. Fairfield.
Verified and inked by F. M. Albert.

1. The records conform to the requirements of the General Instructions.
2. The Plan and character of development fulfill the requirements of the General Instructions and satisfy the specific instructions.
3. The sounding line crossings are adequate and the development is sufficient to enable the usual depth curves to be drawn.
4. The usual field plotting was done by the field party and none of it had to be done over in the office. It should be noted that the position numbers and day letters are placed too far from the positions and that the lines connecting positions are scored too deeply.
5. The junctions with adjacent sheets are satisfactory.
6. No further surveying is required within the limits of the sheet, except that the 17 fathom shoal two miles east of Island Pt. should be dragged.
7. Character and scope of surveying is excellent. The field drafting is excellent as regards accuracy and fair as to appearance.
8. Reviewed by E. P. Ellis, July, 1922.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 4190

State . . . S.E. Alaska

General locality . . . Clarence Strait

Locality . . . Moira Sound to Caspary Point

Chief of party . . . J.H.Hawley

Surveyed by . . . J.H.Hawley

Date of survey . . . May to October, 1921

Scale 1:50,000

Soundings in . . . Fathoms

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

Protracted by . . . J.H.H. . . . Soundings in pencil by W.C.F.

Inked by Verified by

Records accompanying sheet (check those forwarded):

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

4 Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks: Tide books accompany launch sheets.

Geographic names lettered by L.F.Lewis.