

4393

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| Form 504 | |
| DEPARTMENT OF COMMERCE | |
| U. S. COAST AND GEODETIC SURVEY | |
| State: | SOUTHWEST ALASKA |
| 11-9618 | |
| DESCRIPTIVE REPORT. | |
| Hyd. | Sheet No. J 4393 |
| LOCALITY: | |
| ALASKA PEN: | |
| Pavlof Bay | |
| C. Tolstoi to Vic. of Settlement Pt. | |
| 1924 | |
| CHIEF OF PARTY: | |
| R. R. Lukens | |

DESCRIPTIVE REPORT
HYDROGRAPHIC SHEET "J"
EAST SIDE PAVLOF BAY.
S.W. ALASKA.

Str. PIONEER

R.R. Lukens, Comdg.

1924.

LIMITS This sheet embraces the inshore hydrography of Pavlof Bay, from Cape Tolstoi to a point 4 miles north of Settlement Point. It is on the scale of 1:20,000 and was surveyed in August and September 1924.

CONTROL The survey is controlled by a scheme of secondary triangulation which was carried for the length of Pavlof Bay. Between triangulation stations, the signals were located by plane table traverse.

METHODS All hydrography on this sheet was done from the starboard motor sailer in charge of Lt. (jg) Itter. In depths under 10 to 12 fathoms, the hand lead was used, while in greater depths the sounding machine was used.

TIDAL DATA A portable tide gauge was installed at Settlement Point, and soundings on this sheet were reduced from that gauge. The plane of reference was determined by simultaneous observations with the King Cove gauge. There are only slight differences in time and range between the two gauges.

GENERAL DESCRIPTION The eastern shore of Pavlof Bay is bold and mountainous. From the bluffs along the shore, the land rises gradually to the mountain ridges of the back country. The shores are foul and strewn with boulders and reefs. There is a fringe of kelp along the shore. It appears that all the dangers are near the shore and inside of the 10 fathom curve.

CAPE TOLSTOI is bold and precipitous and rises to a height of about 1700 feet. Just to the East there is another peak of about equal height which is separated from Cape Tolstoi by a low sharp valley.

SETTLEMENT POINT is a narrow point of low table land about $6\frac{1}{2}$ miles north of Cape Tolstoi. Just back of the point, there is a low prominent hill, its summit being the location of the Δ Lof

FISH TRAP There is a large pile fish trap extending to the 30 ft. curve, just north of Settlement Point. There are several pile dolphins driven in this vicinity for use in tying up cannery tenders and other floating equipment.

DANGERS About $\frac{1}{4}$ south of Settlement Point, there is a small reef which bares at low water. When entering the cove on the south side of the point, care must be taken to avoid this reef. It is entirely covered at high water and often there is no kelp showing.

REEF 4 MILES N.E. from SETTLEMENT Pt. This is an extensive reef about $\frac{1}{3}$ mile off shore, which bares at low tide. There is shoal water between this reef and the shore line.

SHOAL 1 MILE North from SETTLEMENT Pt. is of small extent and a least depth of 17 feet was found over it. It was searched over carefully by the launch.

SHOAL 1 Mile North of A BARE This shoal is of small extent, and 13 feet was the least depth that could be found over it.

ANCHORAGES Good protection from the N.E. to the S.E. may be had just north of Cape Tolstoi. Anchorage may be had in 15 fathoms, soft sticky bottom and excellent holding ground. The bottom seems to be a mixture of mud and ashes. North of Settlement Point, anchorage may be selected as desired, but the bottom is in general hard.

LOCATION OF SIGNAL AP It was originally intended to locate this signal by triangulation, but it would not see any of the stations in Pavlof Bay, so we were unable to determine it. It was then cut in on the 1:40,000 boat sheet, and that position transferred to the sheet "J". The position of this SXXXX signal can be regarded as only approximately correct.

R. R. Lukens.
R.R.Lukens.

Statistics Sheet
for

Hydrographic Sheet #J - - - - - East Side of Pavlof Bay

| Date (1924) | Day | Volume | Positions | Soundings | Miles (Statute) | Vessel |
|----------------|-----|--------|-----------|-----------|--------------------|---------|
| Aug. 1 | a | 1 | 54 | 136 | 6.5 | M.S. #1 |
| Aug. 2 | b | 1 | 127 | 272 | 18.3 | M.S. #1 |
| Aug. 8 | c | 1 | 104 | 340 | 14.0 | M.S. #1 |
| Aug. 8 | e | 2 | 7 | 26 | 2.5 | M.S. #1 |
| Aug. 14 | d | 2 | 145 | 460 | 24.0 | M.S. #1 |
| Aug. 28 | e | 2 | 117 | 409 | 17.5 | M.S. #1 |
| Aug. 29 | f | 2 | 38 | 126 | 3.0 | M.S. #1 |
| Aug. 29 | f | 3 | 9 | 45 | 1.0 | M.S. #1 |
| Sept. 12 | g | 3 | 77 | 167 | 11.0 | M.S. #1 |
| | | Totals | 678 | 1981 | 97.8 | |

Section of Field Records.

January 30, 1925.

~~Division of Hydrography and Topography~~

Division of Charts:

Tide reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 4393

Locality: Pavlof Bay, Lower East Shore, S. W. Alaska

Chief of Party: R. R. Lukens in 1924

Plane of reference is mean lower low water

5.6 ft. on tide staff at Kings Cove, Alaska

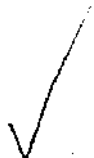
4.2 " " " " " Settlement Point, Alaska

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 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.



Draftsman's Report
on
Hydro. Sheet No. 4393

State: Southwest Alaska
Locality: Pavlof Bay - Cape Tolstoi to Vicinity of
Settlement Point.

Chief of Party: B. A. Lukeno
Surveyed by: C. J. Otter
Date: August and September, 1924
Scale: 1:20,000

Character and Completeness of Records and Notes:

The sounding records and notes are legible and properly arranged. The general instructions were well followed out in keeping records except as follows:

Para. 300 - Very few bottom characteristics were noted in the sounding records ✓

Accuracy of Protracting:

✓ The protracting of positions was exceptionally accurate

Plotting of Soundings:

✓ The time intervals were carefully adhered to when plotting the soundings except in very few cases.

Sufficiency of Development:

The development in channels and on shoals is satisfactory except in one case.

The shoal area at about Lat. $55^{\circ}32'25''$,
// Long. $161^{\circ}26'20''$ where a least depth of $2\frac{1}{6}$
fathoms was obtained. More sounding in
this area might disclose a lesser depth.

Cleanliness of Sheet and Legibility of Work:

The sheet was very clean and clear.

A softer pencil should have been used
in plotting the curves so they could be
more easily erased for minor changes.

✓ The work of C. L. Nyman was particularly
commendable.

John C. MacFar.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4393

Pavlof Bay, Alaska

Surveyed in 1924.

Instructions dated February 27, 1923 and February 8, 1924.

Chief of Party, R. R. Lukens.

Surveyed by C. J. Itter.

Protracted and soundings plotted by C. L. Nyman.

Verified and inked by J. C. MacNab.

- ✓ 1. The records conform to the requirements of the General Instructions except that there are but few bottom characteristics. The name Bum is applied to two different signals.
- ✓ 2. The plan and character of development conform to the requirements of the General Instructions.
- ✓ 3. The plan and extent of development satisfy the specific instructions.
- ✓ 4. The ^{development} sounding line ~~crossings~~ are adequate.
- ✓ 5. The information is sufficient for drawing the usual depth curves.
- ✓ 6. The usual field plotting was done by the field party. The only adverse criticism is that the pencil used in drawing the curves was so hard that the lines are permanently engraved in the paper.
7. The junctions with adjacent surveys are satisfactory.
- ✓ 8. No further leadline development is required within the area of this sheet, but only wire dragging will reveal all the hidden dangers.
9. The character and scope of the surveying are ^{very} good and the field drafting excellent.
10. Reviewed by E. P. Ellis, April, 1925.

Approved
J. C. MacNab
4-24-25

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. J 4393

SOUTHWEST

State ~~South-Western~~ Alaska

General locality ~~Pavlof Bay~~ Alaska Peninsula

Locality ~~East Shore Cape Tolstoi to A Iron~~ Pavlof Bay - C. Tolstoi to Vic. of Settlement Pt.

Chief of party R. R. Lukens

Surveyed by G. J. Itter

Date of survey Aug.-Sept. 1924

Scale 1:20000

Soundings in Fathoms

Plane of reference Mean Lower Low Water

Protracted by C. L. Nyman Soundings in pencil by C. L. Nyman.

Inked by Verified by

Records accompanying sheet (check those forwarded):

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

Sounding books, Wire-drag books, Photographs.

Data from other sources affecting sheet

Remarks: **Depth Curves are drawn for 3,5,10,15,20,30,&40 Fathoms.**