

# 4491

Note: See Des. Rept. 3305 (Addl. work) which concerns this sheet also.

Form 504

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

State: SW. Alaska

U-5413

DESCRIPTIVE REPORT.

Hyd. Sheet No. J 4491

LOCALITY:

Alaska Pen.

Deer I. to Iliasik Is.

1925

CHIEF OF PARTY:

R.F. Luce

4491

Descriptive Report to accompany Hydrographic Sheet  
" J ", Deer Island to Iliasik Islands, S. W. Alaska.

Instructions.

In conformity with instructions to the Commanding Officer, Steamer Pioneer dated March 20, 1925 paragraphs 20 and 25 hydrography was completed from the junction with hydrographic sheet " E " eastward to hydrographic sheet H 3305.

Locality.

Hydrography extended from the eastern end of Deer Island Passage to about  $1\frac{1}{4}$  mile west of Iliasik Islands and from  $1/3$  of the way in Belkofski Bay southward to a line drawn between  $\odot$  Am on Deer Island to Sarana Island.

Spacing of lines.

Inside the 20 fathom curve sounding lines were run not over 300 meters apart, and between the 20 fathom curve and deeper lines were spaced not over 600 meters with considerable of this depth sounded where at all questionable by 300 meter lines.

Soundings.

Except around the one fathom spot in Latitude  $54^{\circ} 57.2$  N., Longitude  $162^{\circ} 03.3$  W which was developed by the motor-sailer all work was with the ship sounding machine with the vessel proceeding not over  $4\frac{1}{2}$  knots per hour. Two tubes were used with each cast. Tubes were compared each day covering the sounding range.

Due to losing several tubes and caps a few soundings were taken with the Rude-Fisher tubes and caps. All the other soundings were taken with the improved Rude tubes, and gave excellent results.

Sounding lines were run in a NW  $\frac{1}{2}$  SE direction.

Shoals and banks.

The shoal 2 miles  $184^{\circ}$  True from  $\Delta$  Til with 11 fathoms of water on it was developed on Hydrographic sheet " F " - Belkofski Bay.

One mile  $165^{\circ}$  True from  $\Delta$  Til a 14 fathom spot was found.

A 17 fathom spot was found 1.9 miles  $253^{\circ}$  True from  $\Delta$  Bel.

A 20 fathom spot was found 2.3 miles about  $209^{\circ}$  True from  $\Delta$  Bel.

The " $\dagger$  P. D. " spot on chart 8703 is undoubtedly the One fathom shoal mentioned above under the heading " Soundings ". All the above soundings are not reduced for tide.

Bottom.

The bottom of the central area of this sheet is very

regular while the remaining area particularly off Belkofski Point is more or less irregular. The deepest water, the 50 fathom curve, is in about the center of the sheet and runs in the direction of Belkofski Bay. It is about 6 miles long by about  $1\frac{1}{2}$  mile wide on this sheet and extends southward of the soundings on this sheet evidently a short distance.

Inshore hydrography.

There is no inshore hydrography on this sheet.

Sentry.

In questionable water while sounding the sentry was towed, and where it struck bottom is noted on the boat sheet with the depth.

Scale of sheet.

The scale of this hydrographic sheet is 1:40,000.

*Charles Shaw*

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

*Sheet inspected by Comdg. Officer August 3, 10, 11, 12, 13, 14, 17, 18, 26, 1925.*

*A. R. Rice*  
*Comdg. Officer*

| Date<br>1925 | Letter | Volume | Positions | Soundings | Miles<br>Statute | Vessels   |
|--------------|--------|--------|-----------|-----------|------------------|-----------|
| Aug. 13      | a      | 1      | 56        | 129       | 12.0             | M.S. 6171 |
| " 3          | a      | 1      | 73        | 147       | 9.0              | Ship      |
| " 10         | b      | 1      | 84        | 236       | 28.7             | "         |
| " 11         | c      | 1-2    | 45        | 118       | 6.7              | "         |
| " 12         | d      | 2-3    | 188       | 534       | 59.0             | "         |
| " 13         | e      | 3      | 148       | 411       | 45.7             | "         |
| " 14         | f      | 3-4    | 96        | 283       | 31.8             | "         |
| " 17         | g      | 4      | 68        | 148       | 16.2             | "         |
| " 18         | h      | 4-5    | 154       | 394       | 44.6             | "         |
| " 26         | j      | 5-6    | 94        | 226       | 23.0             | "         |
|              |        |        | 1006      | 2626      | 276.70           |           |

An automatic tide gauge at King Cove was used for this work.

Soundings are in FATHOMS.

Plane of reference, reading on gauge =

Lowest tide observed, " " " =

Highest tide observed, " " " =

February 16, 1926.

~~Division of Hydrography and Topography:~~

Division of Charts:

Tide reducers are approved in  
 7 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4491

Locality:

Chief of Party:

Plane of reference is  
 5.7 ft. 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.

**No reducers entered.**



Chief, Division of Tides and Currents.

MAR 1 - 1928

Division of Hydrography and Topography:

Division of Charts:

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

HYDROGRAPHIC SHEET NO. 4491

Locality: S. W. Alaska

Chief of Party: R. F. Luce in 1925

Plane of reference is  
5.7 ft. 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.

No reducers entered by field party.



Chief, Division of Tides and Currents.

ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY

AND REFER TO No.

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

April 8, 1926

REPORT ON VERIFICATION OF  
HYDROGRAPHIC SHEET No. 4491

The sounding records are complete.

The protracting was well done.

The time interval was carefully adhered to in the plotting  
of the soundings.

The sheet was incomplete as to shore line and names.

*H. R. Edmonston*

H. R. Edmonston,  
Field Records.

E. R.

ADDRESS THE DIRECTOR  
U. S. COAST AND GEODETIC SURVEY  
AND REFER TO No. 3-DFM

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
WASHINGTON May 4, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4491

Approaches to Belkofski Bay, Alaska Peninsula

Surveyed in 1925

Instructions dated March 20, 1925 (PIONEER)

Chief of Party, R. F. Luce.

Surveyed by R. F. L.; C. Shaw; W. Weidlich.

Protracted and soundings plotted by B. Williams.

Verified and inked by H. R. Edmonston.

1. The records conform to the requirements of the General Instructions except that in many places beginnings and endings of lines were omitted. Also more bottom characteristics should have been noted.

Further, up to the date of this review no sounding tube graphs have been received in the office covering this work. These graphs should be attached to the record books.

2. The plan and character of development fulfill the requirements of the General Instructions.
3. The plan and extent of development satisfy the requirements of the specific instructions. There are, however, some indications of shoaling water on the main system of lines that should have been developed by split lines.
4. No cross lines were run and the area is too irregular in most places to permit of a comparison of adjacent lines.
5. The information is sufficient for drawing the usual depth curves.
6. This sheet was plotted in the office by one of the field engineers. It was experimental in relieving the survey party from doing the office work.

The office cartographer did not have to do over any portion of the protracting or plotting, but the sheet was left incomplete as to shore line and names.



7. The junction with H. 3305 (1911) is satisfactory.

The junctions with the contemporary surveys, H. 4490 and H. 4493 will be taken up in the reviews of those sheets.

8. No additional hydrographic development is required within the limits of this survey except to possibly develop some of the more important indications of shoaling water. But these areas should be wire dragged, if opportunity affords, particularly the area to the south and west of Belkofski Pt.
9. The 11 fathom shoal about 1 1/2 miles west of Belkofski Pt. was developed on a 20,000 scale and plotted on H. 4490.
10. Attention is called to the fact that the + P.D. rock in lat. 54° 57', long. 162° 01' 45" now shown on Chart 8703 was obtained from the report of the Master of a steamer in 1914 (See H.O. Notice to Mariners 36 of 1914) who sighted breakers eastward of Deer Island in approximately the above position. While the present survey does not entirely cover the spot, the sounding lines taken close by to the northward of the position show no indication of shoaling.

It seems reasonable to assume that the breakers sighted in 1914 were the 2 ft. spot located by this party about one mile to the westward of the reported position of the rock. It is recommended, however, that the + P.D. be retained on the charts for the present until the survey is extended southward.

11. The character and scope of surveying and drafting are excellent.
12. Reviewed by A. L. Shalowitz, April, 1926.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

4491

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 4491

State <sup>SW.</sup> Alaska . . . . .

General locality Alaska Peninsula . . . . .

Locality Deer Island to Iliak Islands . . . . .

Chief of party R. F. Luce . . . . .

Surveyed by R. F. Luce, Charles Shaw, and W. Weidlich . . . . .

Date of survey August 1925 . . . . .

Scale 1 : 40,000 . . . . .

Soundings in Fathoms . . . . .

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

Protracted by B. Williams . . Soundings in pencil by B. Williams

Inked by H. R. Edmonston . Verified by H. R. E . . . . .

Records accompanying sheet (check those forwarded):

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

7 Sounding books,  Wire-drag books,  Photographs.

Data from other sources affecting sheet . . . . .

Remarks: The sheet forwarded is the BOAT SHEET.