

5408

U. S. COAST & GEODETIC SURVEY  
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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, Director

State: S. W. ALASKA

DESCRIPTIVE REPORT

*Topographic*  
*Hydrographic*

Sheet No. C-2233  
5408

LOCALITY

DANGEROUS PASSAGE

PRINCE WILLIAM SOUND.

19 33

CHIEF OF PARTY

A. M. SOBIERALSKI, H. & G. E.

5408

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

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. C-2233

*.5408*

REGISTER NO.

S. W. ALASKA

State .....

General locality PRINCE WILLIAM SOUND

Locality ~~Dangerous Passage~~ COAST OF ALASKA

Scale 1-20,000 Date of survey Sept. 11, Oct. 9, 19 33

Vessel U. S. C. & G. S. S. SURVEYOR

Chief of Party A. M. SOBIERALSKI

Surveyed by GEORGE A. NELSON

Protracted by H. G. CONERLY

Soundings penciled by H. G. CONERLY

Soundings in fathoms ~~feet~~

Plane of reference MLLW

Subdivision of wire dragged areas by .....

Inked by *R. E. DeWitt & J. C. Ladd*

Verified by *R. E. D. & J. C. L.*

Instructions dated APRIL 15, 19 33

Remarks: .....

U. S. GOVERNMENT PRINTING OFFICE: 1931

*Applied to CH 8524 Oct. 1934 - J. S. Hamble*

*" " " 8515 Nov " J.S.*

*" " " 8517 Dec " J.S.*

*" " " 8537 Jan 1935 J.S.*

*" " " 8502 " " J.S.*

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET C-2233, DANGEROUS PASSAGE.

Str. SURVEYOR, A. M. SOBIERALSKI, COMDG.

SEASON - 1933

Date of Instructions. April 15, 1933.

Area. This sheet covers the northern half of Dangerous Passage and the bays branching therefrom: namely, Jackpot, Ewan, Paddy, and Granite Bays. It joins with field Sheet C-2133 on the south and reconnaissance Sheet Reg. #H3027 on the north and east.

Survey Methods. Standard three-point sextant fixes were used throughout. Registering sheaves and stranded wire were used for obtaining most of the depths; the hand lead being used when suitable. The sheaves were checked at the beginning and end of the season, and the lead lines from time to time in the field.

Dangers. A rock, baring at minus tides only, lies 250 yards 100 true from a small grass-covered islet which lies 350 yards north of Split Island. Triangulation Station Grassy is located upon this grassy islet. ✓

A  $3\frac{1}{2}$  fathom spot lies 450 yards, 22 true from the grassy islet previously mentioned. (Pos. #21j Vol. #4). ✓

A rock, awash at M.H.W. lies 330 yards south of the north point of the north entrance to Dangerous Passage. ✓

A rock, awash at M.L.W. lies 600 yards north of the north tangent of the large wooded island marking the south point of this entrance. ✓

A rock, awash at M.L.W. lies 330 yards 264 true from the southern extremity of the large wooded island lying at the head of Paddy Bay, at the junction of its two arms. ✓

A rock, baring 8 feet at M.L.L.W., lies in mid-channel of the narrows of Jackpot Bay at their northern extremity. This rock lies on range with the east tangent of the narrows and the center of the islands lying near the center of the entrance to Jackpot Bay. ✓

A rock, awash at  $\frac{1}{2}$  tide lies near the center of the entrance to Jackpot Bay in Latitude 60-20-440m, Longitude 148-12-490m.

Anchorage. Good anchorage may be had south of Split Island from 300 to 400 yards off, in depths ranging from 12 to 20 fathoms, mud bottom. There are other good anchorages northeast of Split Island and at the heads of the various bays, the chart being the best guide.

Granite Bay. Granite Bay on the north side of the Passage lies just west of the north entrance point. It is about  $1\frac{1}{2}$  miles long and much distorted in shape. Although there is anchorage for small craft, the water is too deep for convenience and there is insufficient room for large craft. To enter, pass to the westward of the group of wooded islets lying  $\frac{1}{2}$  mile in, on the eastern side. The cove west of the islets is foul. When abeam of these islets swing to the eastward and keep midchannel. This leads to the middle basin containing one island near its northern end. Anchorage may be had in 15 fathoms west of this island. The entrance to the basin at the head is to the westward. It is narrow and shallow, having a controlling depth of about 1 fathom.

Paddy Bay. Paddy Bay lies on the north side of the Passage 3 miles southwest of the north end of the passage. It is about 2 miles long and  $\frac{1}{2}$  mile wide. It branches into two small arms at its head with a wooded island at their junction. Anchorage for moderate sized vessels may be had in either arm. To enter Paddy Bay pass to the westward of the large island lying in the center of the bay  $\frac{1}{2}$  mile in from the entrance. Pass to the southward of the junction island to enter the east arm. In entering the north arm, favor the island to avoid the rock, awash at M.L.W. which lies 330 yards 264 true from the southern extremity of the junction island.

Opposite Paddy Bay a bay indents Chenega Island  $\frac{1}{2}$  miles in a southeast direction. The entrance is marked by numerous islets. Good anchorage is afforded inside but local knowledge is necessary to enter in the absence of a chart.

Ewan Bay. Ewan Bay lies 5 miles southwest of the north entrance to the Passage, on its north side. It is  $2\frac{1}{2}$  miles long and 1 mile wide at its mouth. Small vessels may anchor at the head of the bay but the water is too deep for convenience, being over 20 fathoms in the center. Pass in midchannel to the eastward of the long island lying 2 miles in from the entrance. A large lagoon with a restricted opening lies at the head. Avoid the entrance as there is danger of being swept in on a rising tide.

Jackpot Bay. Jackpot Bay in the northwest corner of the Passage has an entrance  $1\frac{1}{2}$  mile wide with an island near the center. It decreases rapidly in width to 250 yards at the narrows,  $1\frac{1}{2}$  miles in. The bay then widens and spreads into several arms. The largest extends to the southwest for  $2\frac{1}{2}$  miles with an average width of  $\frac{3}{8}$  mile. The depths throughout the bay are generally too deep for anchorage except at the heads of the various coves. Inside the narrows to the northeast are two coves with restricted but clear entrances. They are suitable as anchorages for small craft.



STATISTICS

SHEET NO. C-2233

<u>Vol.</u>	<u>Day</u>	<u>Date</u>	<u>Positions</u>	<u>Soundings</u>	<u>Statute Miles</u>
1	a	9-11-33	27	101	5.0
1	b	9-12	110	238	23.2
1	c	9-13	100	209	16.8
1	d	9-14	138	307	23.5
2	d	9-14	10	21	1.6
2	e	9-15	146	385	22.7
2	f	9-16	105	316	16.3
3	g	9-18	172	442	24.5
3	h	9-19	166	452	26.5
4	h	9-19	17	37	2.0
4	j	9-20	170	386	21.7
4	k	9-21	148	314	25.2
5	m	9-22	150	347	19.9
5	n	9-23	43	104	3.0
5	p	9-25	130	295	16.1
6	q	9-27	45	104	3.8
6	r	9-28	36	99	5.7
6	s	10-9	<u>92</u>	<u>203</u>	<u>8.3</u>
Total:			1,805	4,360	265.8

May 14, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
6 volumes of sounding records for

HYDROGRAPHIC SHEET 5408

Locality Dangerous Passage, Prince William Sound, Alaska

Chief of Party: A. M. Sobieralski in 1933

Plane of reference is mean lower low water, reading

5.5 ft. on tide staff at Chenega Island

14.2 ft. below B. M. 1

Height of mean higher high water above plane of reference is 11.5 ft.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. ~~5408~~ 5405

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

Number of positions on sheet	<del>5408</del> 1805
Number of positions checked	..14.
Number of positions revised	..1...
Number of soundings recorded	4366
Number of soundings revised	..11...
Number of signals erroneously plotted or transferred	...0...

Date:.... July 5, 1934.....  
Cartographer:..... R. E. Dement.....

Verification of protracting	by J. G. Ladd	Time: 13 hrs.
Verification of inking of rocks & shoals)		
Verification of inking by	R. E. D.	Time: 67 hrs.
Review by	John G. Ladd	Time: 2 1/2 hrs.

VERIFIER'S REPORT

H. 5408.

Chief of Party - A. M. Sobieralski.

Surveyed by - George A. Nelson.

Verified by - John G. Ladd.

1. The records conform to the requirements of the general instructions. ✓
2. A careful visual inspection of the protracting has been made and same was found to have been excellently done.
3. All shoals and danger-spots have been inked after first having been carefully checked by protracting. ✓
4. The sheet has been carefully checked with the topographic sheet (T. 4808) and all rocks awash, islets, etc., have been made to agree with same. (No additional rocks were discovered by the Hydrographic party). ✓
5. As there is no previous survey in this area (Hydro. or Topo.) no comparison was possible.

Submitted by - John G. Ladd.      May 18, 1934.

July 5, 1934

Section of Field Records  
Report on Hydrographic Sheet No 5408

Dangerous Passage  
Prince William Sound  
Sail. West Alaska.

Surveyed in Sept. & Oct 1933  
Instructions dated April 15, 1933

Chief of party - A. M. Sobieski

Surveyed by - G. A. Nelson

Retracted by - N. H. Conely

Sounding's penciled by - H. G. C.

Topography inked by - Field Party

Verified & inked by - J. G. Ladd & R. E. DeMont.

1. The records conform to the requirements of the Hydrographic Manual, except that in only one instance is a rock mentioned as being seen by the Hydrographic party.
2. There are few sounding crossings on the

sheet. These are in fair agreement.

- 3 The 10, 20, 50, & 100 fathom curves are drawn complete. The 0, 1, 2, 3, & 5 fathom ~~are~~ curves are indicated wherever possible. ✓
- 4 The field plotting was completed to the extent prescribed in the Hydrographic Manual. ✓
- 5 No field drafting was redrawn. ✓
- 6 Junction with H. 5409 is made on the South. ✓
- 7 Remarks.  
Degree and minute symbols, ~~and data~~ ~~note~~, omitted by the field party were added. ✓

Respectfully submitted  
R. E. DeWent.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5408 (1933)

Dangerous Passage and Prince William Sound, Alaska.  
Instructions dated April 15, 1933 (SURVEYOR)  
Surveyed in 1933.

Machine and Lead Line Soundings - 3 Point Fixes on Shore Signals.

Chief of Party - A. M. Sobieralski.  
Surveyed by - G. A. Nelson.  
Protracted and soundings penciled by - H. G. Conerly.  
Verified and inked by - J. G. Ladd; R. E. DeMent.

1. Condition of Records.

The records conform to the requirements of the Hydrographic Manual with the following exceptions:

- a. A list of the signals used on this survey was not submitted with the records (see par. 139, Hydrographic Manual).
- b. Lead line comparisons were not given in the sounding volumes (par. 35, Hydrographic Manual).
- c. Triangulation station, "Nowell" '07, was found to be plotted 30 meters in error in latitude. In correcting same, four positions had to be replotted.

2. Compliance with Instructions for the Project.

The survey satisfies the requirements of the Instructions under which the work was done.

3. Sounding Line Crossings.

No cross lines were called for in the Instructions. The parallel lines are in good agreement with each other.

4. Depth Curves.

The depth curves are satisfactory. The 10 fathom curve is the curve of the least depth that is reasonably complete, ~~as~~. All curves of less depth are very broken ~~on account of deep water close inshore and in-sufficient hydrography close inshore. X see below.~~

5. Junction with Contemporary Surveys.

The only contemporary survey that joins this sheet is H. 5409 (1933) on the south. The junction with this survey is very satisfactory. Satisfactory junctions are also made with H. 2916 (1907) and H. 3027 (1909) on the east and H. 3570 (1913) and H. 3573 (1913) on the north.

6. Comparison with Prior Survey.

~~X In my opinion there is sufficient hydrography close inshore for this area.~~  
S. Ladd

There are no prior surveys within the limits of H. 5408 (1933) other than those mentioned under par. 5 which form junctions with the present survey.

7. Comparison with Chart No. 8515.

Except for matters discussed above there are no other rocks, shoals, or matters of importance that need consideration in this review.

8. Field Plotting.

The field plotting was satisfactory.

9. Additional Work Recommended.

a. Immediately necessary.

None.

b. For future consideration.

For a complete survey of the area covered by H. 5408 (1933), the following additional examinations should be made:

1. The 12 fathom rocky shoal in lat.  $60^{\circ}23'.1$ , long.  $148^{\circ}02'.8$  should be further developed to the westward to pick up the 30 fathom indication about 250 meters to the southwestward. There is no indication of ~~the~~<sup>drift</sup> depth soundings having been taken here. A wire drag examination would be desirable.

2. The 19 fathom rocky shoal in lat.  $60^{\circ}23'.2$ , long.  $148^{\circ}01'.8$  should be wire dragged. It appears from the records that detached soundings were taken here and probably the least depth only recorded.

3. The 6 fathom shoal in lat.  $60^{\circ}22'.8$ , long.  $148^{\circ}02'.6$  and the 16 fathom sounding about 300 meters to the <sup>north</sup> westward while closely developed ~~was~~<sup>were</sup> found on a regular system of lines. If the areas mentioned under 1 and 2 above are dragged this spot should also be covered.

4. The 10 fathom sounding (actual  $10\frac{3}{4}$ ) in lat.  $60^{\circ}24'.8$ , long.  $147^{\circ}59'.3$  should be further examined on account of its importance in entering Granite Bay. If correct, it indicates a rapid rise in the bottom and much shoaler water may exist.

~~5. There are a number of places where additional hydrography is desirable closer inshore from a cartographic standpoint, although not necessary for navigational purposes. Granite Bay is not surveyed close enough for consideration as an anchorage. (See Descriptive Report, Page 2).~~

*\* I do not think additional inshore work should have been done on this sheet from any standpoint.*

*G. Wade*

10. Miscellaneous Matters.

The geographic names shown in pencil on the new Hydrographic survey have not been inked pending their acceptance by the Division of Geographic Names.

11. Superseding Old Surveys.

There are no surveys to be superseded by H. 5408 (1933).

12. Reviewed by - John G. Ladd, July 1934.

Inspected by - A. L. Shalowitz.

*K. T. Adams*  
K. T. Adams,  
Chief, Section of Field Records.

*F. H. Jordan*  
Chief, Section of Field Work.

Examined and approved:

*L. O. Polbit*  
Chief, Division of Charts.

*G. H. Hude*  
Chief, Division of H. & T.

25. June 24, 1936.

Leaf