

5431

U. S. COAST & GEODETIC SURVEY  
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Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. PATTON, Director

State: S. W. ALASKA

DESCRIPTIVE REPORT

*Topographic* } Sheet No. M - 2833  
*Hydrographic* }

5431

LOCALITY

PRINCE WILLIAM SOUND - MONTAGUE STRAIT

VICINITY GREEN ISLAND

193 3

CHIEF OF PARTY

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

5431

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5431

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. M - 2833

REGISTER NO. 5431

State S. W. ALASKA

General locality PRINCE WILLIAM SOUND -

Locality MONTAGUE STRAIT - Large  
(WEST OF GREEN ISLAND) - small

*Approved*

Scale 1:20,000 Date of survey JULY - OCTOBER, 19 33

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

Chief of Party A. M. SOBIERALSKI

Surveyed by A. M. SOBIERALSKI

Protracted by R. A. MARSHALL

Soundings penciled by R. A. MARSHALL

Soundings in fathoms ~~Feet~~

Plane of reference M L L W

Subdivision of wire dragged areas by \_\_\_\_\_

Inked by A. M. Uzefovich

Verified by A. M. U.

Instructions dated APRIL 15, 19 33

Remarks: \_\_\_\_\_

*applied to chr. 8575 - Nov. 1934 - J.H. Gumble*  
*" " " 8577 Dec " J.H.G.*

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 2833

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

A. M. SOBIERALSKI, COMMANDING.

SEASON - 1933

DATE OF INSTRUCTIONS:

April 15, 1933.

LIMITS:

The sheet covers part of Montague Strait west and south of Green Island and supplements the survey made in 1905 on H-2741.

SURVEY METHODS:

The vessel accomplished most of the work on this sheet en route to and from Latouche and at odd occasions.

Fixed positions were used throughout. Most of the soundings were obtained with Fathometer with frequent check soundings. The fathometer soundings were reduced in accordance with the Hydrographic Manual, using a correction for temperature and salinity.


COMPARISON WITH PREVIOUS SURVEYS:

On the boat sheet, soundings from H-2741, H-3353 and other sheets were carefully compiled. The agreement with these older surveys is unusually good. The closer spacing of the lines brings out many irregularities of the bottom not shown on the other sheets and makes

several soundings which looked suspicious on the older surveys appear more reasonable.

In Latitude 60 - 10.2, Longitude 147 - 38.5 the Chart shows a <sup>49</sup>~~45~~ fathom sounding, and about 1/4 mile northeastward of this position, a 49 fathom sounding. These soundings are probably erroneous and it is recommended that they be removed from the chart and a note placed on H-2741 stating that they have been superseded. While it might be said that sufficient development has not been made to warrant such a recommendation, the close agreement between this seasons work and the past work in all other parts of the ~~sheet~~ makes the disagreement in this area very marked, and I am convinced that these soundings are erroneous.

Respectfully submitted,



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

STATISTICS

M-2833

<u>DATE</u>	<u>VOLUME</u>	<u>DAY</u>	<u>STATUTE MILES</u>	<u>POSITIONS</u>	<u>SOUNDINGS</u>
7-21-33	1	A	18.3	61	235
8-18-33	1	B	102.3	264	1043
9-8-33	2	C	08.5	17	99
9-21-33	2	D	36.5	94	362
9-22-33	2	E	40.0	93	455
10-4-33	2	F	47.0	126	526
10-10-33	2	G	<u>17.0</u>	<u>39</u>	<u>148</u>
			269.6	694	2868

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5431.

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

Number of positions on sheet	... <del>694</del>
Number of positions checked	.....
Number of positions revised	.....
Number of soundings recorded	..2868
Number of soundings revised	.....9
Number of signals erroneously plotted or transferred	...! (Topographic Station Wash.)

Date: June 25, 1934.....

Cartographer: A. M. Uzefovich (verification and inking - 86 hours).....  
Additional work July 20, 23 - 11 hours  
1934 A. M. U.

Reviewed by J. G. Ladd — 18 hrs.  
and R. Johnston — 12 1/2 hrs.

June 25, 1934

Section of Field Records  
Report on H-5431

Chief of Party A. M. Sobieralsky      Surveyed in July-Oct. 1933  
Protracted by R. A. Marshall          Surveyed by A. M. Sobieralsky  
Verified and inked by A. M. Uzefovich      Soundings plotted by R. A. Marshall

1. The records conform to the requirements of the General Instructions.
2. The field plotting was completed to the extent  prescribed in the General Instructions.
3. The hydrography is complete, and the usual depth curves can be drawn.
- x) 4. The office cartographer did not have to do over any part of the drafting done by the field party.
5. The junctions with adjacent sheets H 5428, and H 3353  were verified, and both are satisfactory.  
The junctions with adjacent sheets H 5430, H 5421,  and H 5427 were not verified, as these sheets are not inked yet.
- | The junction with ~~adjacent~~ <sup>overlapping</sup> sheet H 2741 <sup>40,000</sup> was not made, as this sheet is on scale 1: ~~100,000~~.
6. Remarks: Soundings 24, and 27 (Lat.  $60^{\circ} 14' 2''$ , Long.  $147^{\circ} 34' 4''$ , and Lat.  $60^{\circ} 14' 5''$ , Long.  $147^{\circ} 34'$ ) were plotted according to the Boat Sheet, as in Volume I p.p. 27 and 29 (positions 61-62 B, and 73-74 B)  the indication of time spacing is not shown in proper way (15" must be read as 45").
- ~~xx) Topographic stations on H 5431 were not verified as the latest Topo. sheets are not in the office.~~
7. The quality of the work is good.

Respectfully submitted

(from Topos 2919 & 2946) Alexis M. Uzefovich

- x) There was added a part of E. shore of Knight I., and was redrawn a part of W. Shore of Green I.  
Topographic Stations were verified, and Topographic station "Wash" was replotted according to the Topo. 4837. A. M. U. July 23, 1934. (See over:)

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The error in plotting the topographic  
Station "Wash" (PERIL ROCK) done by the field party  
was one minute in latitude  
A. M. U.



Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5431 (1933)

West of Green Island and Prince William Sound, Alaska.  
Instructions dated April 15, 1933 (SURVEYOR)  
Surveyed in 1933

Fathometer, Machine and Hand Lead Sounds and 3 point fixes on Shore Signals

Chief of Party - A. M. Sobieralski.  
Surveyed by - A. M. Sobieralski.  
Protracted and soundings penciled by - R. A. Marshall.  
Verified and inked by - J. G. Ladd; A. M. Uzefovich.

1. Condition of Records.

The records conform to the requirements of the Hydrographic Manual, with the exception that there was no evidence that the transfer of topographic signals had been checked by the field party. This was accomplished in the office.

2. Compliance with Instructions for the Project.

The character and extent of the survey satisfy the instructions for the project, within the survey itself, except as noted in paragraph 9. Most of the open areas within the limits of the present survey are covered by H-2741 (1905 and 1911).

3. Sounding Line Crossings.

There are a few short cross lines on this sheet, but no general system of cross lines was used. They show a good agreement with each other, as do the parallel lines, where comparisons were possible.

4. Depth Curves.

The usual depth curves can be satisfactorily drawn.

5. Junction with Contemporary Surveys.

The junctions with H-5428 (1933) on the south and H-3353 (1911) on the east (opposite Green Island) are satisfactory. The junction on the north with H-5430 (1933) and the junction on the northeast with H-5421 (1933) is satisfactory. The junction on the southeast with H-5427 (1933) is also satisfactory.

6. Comparison with Prior Surveys.

H-2741 (1905) and H-2741 bis (1911) These are the only previous surveys within the area covered by the new survey.

H-2741 bis (1911) is on a scale of 1-100,000 and is apparently a boatsheet used as a smooth sheet. As the sounding lines on this sheet have been replotted on H-2741 (1905), scale 1-40,000, the comparison was made with that sheet. The agreement in general is very good except for the following:

a. Two 49 fathom soundings (charted) in Lat. 60°-10.2 Long. 147-38.5 and Lat. 60°-10.55 Long. 147-38.3 and originating with H-2741 bis (1911) fall in depths of 80 fathoms on the new survey. These soundings are in poor agreement with other lines on H-2741 bis (1911) and do not check the soundings on H-2741 (1905). An examination of the records shows that these two 49 fathom soundings are tube soundings taken with the vessel under way. They are, therefore, subject to considerable doubt and should be discontinued in future charting. This is in conformity with the recommendation of the Chief of Party (See D. R. pg. 2, H-5431).

With the exception of these two soundings, H-2741 (1905) and H-2741 bis (1911) should be used to supplement the new work wherever necessary for charting purposes.

7. Comparison with Chart No. 8515.

Except for matters discussed in foregoing paragraphs, there are no other matters of importance that need consideration in this review.

8. Field Plotting.

The prescribed amount of field plotting was satisfactorily done, except that there was an error of minute in latitude in the transfer of a topographic signal Wash. (Peril Rock). This did not affect the plotting of the hydrography because this signal was not used.

9. Additional Field Work Recommended.

a. Immediately Necessary.

No additional field work is immediately necessary, but attention is called to the fact that the 1905 offshore triangulation stations, Pin, Small, Large and Bump, that were used on the present survey, show no topographic feature on the original survey (T-3232), but show pencil elevations for the last three signals. Descriptions and recovery notes are available for small and Bump which seem to be located on bare rock. However, no mention is made of the extent of these rocks. For stations Pin and Large no descriptions nor recovery notes were turned in. It may be possible for the present Chief of Party to supply the necessary information which could be added to the original topographic sheet with a suitable explanatory note. The present chart shows islets at all of these stations. *(Chief of party has furnished sketches)*

See chart letter #43 (1935)

C.K.G.

b. For Future Consideration.

The following additional field work is recommended to complete the area within the limits of the present survey, as well as in some of the inshore areas adjacent thereto:

- (1) Split lines should be run over the shoaling in Lat. 60-20, Long. 147-29.
  - (2) A 13 fathom shoaling in Lat. 60-19.4, Long. 147-28.8 is an abrupt change in depth and was not closely developed. Further examination is desirable.
  - (3) A 17 fathom shoaling in Lat. 60-11.4, Long. 147-34.1 should be further examined.
  - (4) A closer development of the shoal area extending to the southwest of  $\Delta$  Small. (Lat. 60-14.7, Long. 147-32.9)
  - (5) An 11 fathom shoaling of fairly large extent in Lat. 60-10.9, Long. 147-34.5 should be more closely developed.
  - (6) The broken area in the general vicinity of Lat. 60-09.0, Long. 147-37.0 should be covered by split lines.
  - (7) The 29 fathom sounding <sup>on</sup> from H-2741 (1905) in the vicinity of Lat. 60-16.7, Long. 147-39.5 should be investigated.
  - (8) The 2 mile gap between the western limits of the present survey, H-5431 (1933), and the inshore surveys H-2984 (1908), H-3026 (1909) and H-2983 (1908) is covered at present by H-2741 (1905 and 1911) on a scale of 1-40,000. If this area should be resurveyed at some future time, attention is called to the following soundings which were not adequately developed on the inshore surveys and should also be further examined.
    - (a) A 51 foot spot, shown on H-2984 (1908) in Lat. 60-23.95, Long. 147-35.8.
    - (b) Soundings of 44 and 55 feet shown on H-3026 (1909) in Lat. 60-16.4, Long. 147-40.8.
    - (c) A 66 foot shoaling shown on H-3026 (1909) in Lat. 60-15.85, Long. 147-41.8
10. There are no surveys to be superseded. H-2741 (1905 & 1911) should be used to supplement the new survey wherever necessary for charting purposes.
11. Reviewed by - John G. Ladd and R. L. Johnston, July 18, 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green, *C. K. Green*  
Chief, Section of Field Records.

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

*F. S. Bondin*  
Chief, Section of Field Work.

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

Verifier's Report on H. 5431.

Chief of Party - A. M. Sobieralski.

Surveyed by - A. M. Sobieralski.

Verified by - John G. Ladd.

1. The records conform to the requirements of the general instructions.
2. There are no dangers on this sheet and except for a very irregular bottom there are no shoals of less than 11 fathoms.
3. A very careful visual inspection of the protracting has been made and where there was a discrepancy with the boat sheet or poor crossings the positions were checked by protracting. A number of crossings were improved as a result of correcting erroneous plotting.
4. Attention is called to the reviewer and compiler to the recommendation of the Chief of Party concerning the 48 and 49 fathom sounding on Chart 8515 (see last paragraph of Descriptive Report). The two soundings referred to are really both 49 fathom soundings. In transferring the sounding from old sheet to the boat sheet of this survey one of the 49 was evidently read as a 48.
5. The topography on this survey has been carefully checked with the latest topography, T. 3232.

Submitted by - John G. Ladd, Asst. Carto. Engineer - May 26, 1934.

RAC

May 14, 1934

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in  
2 volumes of sounding records for

HYDROGRAPHIC SHEET 5431

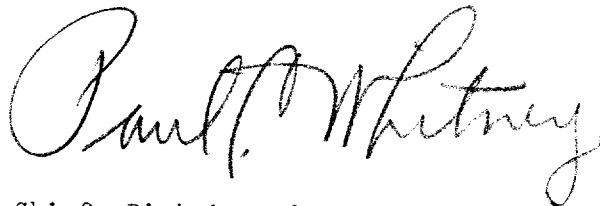
Locality West of Green Island, Prince William Sound, Alaska

Chief of Party: A. M. Sobieralski in 1933

Plane of reference is mean lower low water, reading  
6.0 ft. on tide staff at Wilby Island, Port Chalmers  
20.4 ft. below B. M. 1

Height of mean higher high water above plane of reference is 11.7 ft.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents

MONTAGUE STRAIT

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D

25 Jan 24, 1936  
E.H.B.