6459

6459

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } *Sheet No.* 1139
Reg. No. H 6459

State S.E. Alaska

LOCALITY

Southeastern Alaska

Glacier Bay

Willoughby Passage

193 9

CHIEF OF PARTY

Benjamin H. Rigg

U. S. GOVERNMENT PRINTING OFFICE

Form 537
Ed. Dec. 1930

REG. NO.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 1139

REGISTER NO. H-6459 H6459

State Southeast Alaska

General locality ~~Southeastern Alaska~~ Glacier Bay

Locality ~~Glacier Bay~~ Willoughby Passage

Scale 1:10,000 Date of survey Sept. & Oct., 1939

Vessel WESTDAHL

Chief of Party Benjamin H. Rigg

Surveyed by William F. Deane

Protracted by G. W. Branning

Soundings penciled by G. W. Branning

Soundings in fathoms ~~xxxx~~

Plane of reference Mean lower low water

Subdivision of wire dragged areas by

Inked by Harold W. Murray

Verified by "

Instructions dated March 10, 1938 and April 19, 1939

Remarks: This report was written from the boat sheet.

U. S. GOVERNMENT PRINTING OFFICE

DESCRIPTIVE REPORT

to accompany

SHEET NO. 1139 (FIELD), REG. NO. H-6459

PROJECT HT-221

MOTOR VESSEL WESTDAHL 1939 BENJAMIN H. RIGG, COMMANDING

INSTRUCTIONS:

This survey was made in compliance with the Director's Instructions dated March 10, 1938 and the Director's Supplemental Instructions dated April 19, 1939.

SURVEY METHODS:

Standard survey practices were used throughout. The lines were controlled by sextant fixes; the soundings were taken with hand lead in shoal water and with wire machine in deeper areas.

CONTROL:

All topographic signals on this sheet were located after control by second and third order triangulation had been established. No signals were located by the hydrographic party.

DISCREPANCIES:

No discrepancies were noted.

DANGERS:

The entrance to the north bay has a very irregular bottom configuration. With the exception of the underwater ridge putting out from the south side 3 fathoms may be carried through the entrance. Deeper water exists on either side of this sdg.

A shoal with least depth of 4 fathoms, 2 feet was found in Lat. 58° 34.95', Long. 136° 10.90'. Several soundings were taken on this spot to obtain the least depth.

An underwater ridge extends out into the entrance to the south bay in Lat. 58° 34.5', Long. 136° 10.7'.

A rock awash in Lat. 58° 34.5', Long. 136° 11.7' must be avoided if vessels intend to use the north end of the south bay. A good course would lie mid-way between this rock and a small islet (△EVER).

CHANNELS:

The entrance to the north bay has a controlling depth of 3-2/6 fathoms when the island (△VENT) is passed 350 meters to the northward. Deeper water is available at a distance of 220m.

The entrance to the south bay has deep water except on the south side. By favoring the north side and passing about 300 meters off the islet (△EVER) a good passage may be had.

To use the north end of the south bay a vessel, after passing the islet (△EVER) at the entrance must keep about 200 meters off when heading up the bay.

ANCHORAGES:

Several good anchorages were found in this vicinity. These anchorages, however, have williwaws at certain seasons and all boats should keep this in mind. The one used by the WESTDAHL was the arm of the north bay in Lat. 58°35.0', Long. 136°12.5'. A muddy bottom in 13 to 15 fathoms of water with swinging room may be had in this arm.

The upper part of the north bay gives protection from northerly weather but the WESTDAHL rolled badly in a southeast blow. The bottom is mud; the WESTDAHL anchored in 18 fathoms.

In the south bay the north arm has the same difficulties as found in the north arm of the north bay. Here again is protection from all sides except the southeast. Anchorage may be had in 5 to 8 fathoms, muddy bottom.

The small arm in Lat. 58°34.3', Long. 136°12.0' is not recommended. The water is too deep for the swinging room. Halibut boats have been reported as using this bay but local knowledge would be necessary before the average boat should attempt it.

The south end of the south bay offers protection from most all weather. Anchorage may be found in 12 to 17 fathoms, muddy bottom.

COMPARISON WITH PREVIOUS SURVEYS:

This survey is the original one.

GEOGRAPHIC NAMES:

It is recommended that the north and south bays with their arms be named FINGERS BAY. The arms are five in number and lend significance to the name. No local names exist. See G.N. 25, 1940.

COAST PILOT:

All notes to be included in the Coast Pilot will be submitted in a separate report.

LANDMARKS:

No landmarks of sufficient prominence were noted.

TIDE GAGE:

A portable automatic tide gage was maintained in the cove on the north end of Willoughby Island in Lat. 58°36.5', Long. 136°07.1'. This gage was used for reducing all soundings on this sheet. Sounding reducers were entered to the nearest foot.

LIST OF SIGNALS:

The signals used on this sheet were:

Triangulation

ELSE 1939
EVER 1939
VENT 1939
ZEAL 1939
KITE 1939

Topographic

Abe	Can	El	Joe	Nor	Sin
Adam	Cat	Far	Jon	Nut	Sis
Beg	Chet	Fritz	Ken	Ox	Sob
Bil	Con	Gal	Kit	Pete	Tar
Bit	Cot	Hal	Lin	Quat	Tres
Box	Dig	Han	Lum	Reg	Uno
Burn	Dos	Hot	Mop	Sep	Vil
But	Ed	Jam	Nel	Sex	Web
Bran	Eat	Jig	New	Sid	Zip

STATISTICS:

Statute miles of sounding lines.....59.9 wire - 33.4 hand lead
93.3 total

Number of soundings.....1972 wire 1017 hand lead
2989 total

Positions.....967

Area.....3.2 square statute miles.

Respectfully submitted,

William F. Deane

William F. Deane, Aid.

Approved;

Benjamin H. Rigg
H.&G.E., Chief of Party

Benjamin H. Rigg

Examined & Forwarded

J. M. Sobieralski

Officer in Charge,
Seattle Processing Office.

Two rocks at low water line were transferred from the boat sheet. These rocks are not mentioned in the sounding record. They are approximately at:

Lat. 58° 34.4', Long. 136° 10.7'

Generalized rocks from T-6680(1939)

and

Lat. 58° 34.4', Long. 136° 11.7'.

G. W. Branning,
Asst. Engr. Draftsman.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6459

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

Number of positions on sheet	967
Number of positions checked	22
Number of positions revised	22
Number of soundings recorded	2989
Number of soundings revised	11
Number of soundings erroneously spaced	4
Number of signals erroneously plotted or transferred	✓

Date: Oct. 21, 1940

Verification by Harold W. Murray Time: 2 5/4 hrs.

Review by " Time: 1½ "

HYDROGRAPHIC SURVEY NO. H6459

Smooth Sheet One

Boat Sheet One

Records; Sounding 3 Vols., Wire Drag ___ Vols., Bomb ___ Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service (Circular Nov.30, 1933) ------

Hydrography: Total Days ----- ; Last Date ------

Remarks

3776

	Remarks	Decisions
1		580 355 U.S.G.B
2	Do not ink pending (also T 6679, 6680) U.S.G.B decision	58 5360
3	Do not ink pending U.S.G.B. decision (also T6680)	"
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M 234		

GEOGRAPHIC NAMES

Survey No. H6459

Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Glacier Bay										1
~~Whidbey~~ ~~Nouzadi~~ Passage		U.S.G.B		5/27/42						2
Fingers Bay		"			"					3
										4
		Names underlined in red approved								5
		by L. Heck on 10/14/40								6
		ALSR 7/9/42								7
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M 234

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H H6459
~~No. H~~

received Aug. 27, 1940
registered Sept. 5, 1940
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25	✓	HE	Pages 1 and 2
26			
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62			
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90			

RETURN TO

82	T. B. Reed

✓ HSR

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

September 18, 1940

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Plane of reference approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 6459

Locality Willoughby Passage, Glacier Bay, Alaska

Chief of Party: B. H. Rigg in 1939
Plane of reference is mean lower low water reading
4.3 ft. on tide staff at Willoughby Island
21.8 ft. below B. M. 1

Height of mean high water above plane of reference is 15.3 feet.

Condition of records satisfactory except as noted below:

Ham

Acting Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-6459(1939)

Verified and Inked by Harold W. Murray Date Oct. 21, 1940

1. ✓The descriptive report was consulted and appropriate action taken.

2. ✓Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.

3. ✓All references to survey sheets mentioned in the descriptive report include the registry number and year.

4. ✓Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering.

5. ✓All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.

6. ✓ All positions verified instrumentally were check marked in the sounding records.

7. ✓All critical soundings are clear and legible.

8. ✓The metal protractor has been checked within the last three months.

9. ✓The protracting and plotting of all bad crossings were verified.

10. ✓All detached positions locating critical soundings, rocks or buoys were verified.

11. ✓The boat sheet was compared with the smooth sheet.

12. ✓ The spacing of soundings as recorded in the records was closely followed.

13. ✓ The bottom characteristics were shown on outstanding shoals.
shown only when in records

14. ✓The reduction and plotting of doubtful soundings were checked.

M-996

15. The transfer of contemporary topographic information was carefully examined.

16. All junctions were transferred.
not available

17. The notation "JOINS H " was added for all contemporary adjoining or overlapping sheets now registered.
see #16

18. The depth curves have been drawn to include the significant depths.

19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party.

20. Heights of rocks were checked against range of tide.
none observed by hydro party

21. Rocks transferred from topographic survey have a dotted curve where shown thereon.

22. Unnecessary pencil notes have been removed.

23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.

24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934).

25. Degree and minutes values and symbols have been checked.

26. Source of shoreline and signals (When not given in report).

27. Depth curves were satisfactory except as follows:

28. Sounding line crossings were satisfactory except as follows:

29. Junctions with contemporary surveys were satisfactory except as follows:

30. Condition of sounding records was satisfactory except as follows:

31. The protracting was satisfactory except as follows:

32. The field plotting of soundings was satisfactory except as follows:

33. Notes to reviewer:

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6459 (1939) FIELD NO. 1139

Willoughby Passage, Glacier Bay, Alaska
Surveyed in September - October 1939, Scale 1:10,000
Instructions dated March 10, 1938 and April 19, 1939
(WESTDAHL)

Soundings:
Hand Lead and Machine

Control:
Three point fixes on shore signals.

Chief of Party - Benjamin H. Rigg.
Surveyed by - Wm. F. Deane.
Protracted by - G. W. Branning.
Soundings plotted by - G. W. Branning.
Verified and inked by - Harold W. Murray.
Reviewed by - Harold W. Murray, October 21, 1940.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

The shoreline and signals originate with T-6680 (1939). Generalized rocks falling inside the low water line were not transferred to the hydrographic sheet.

2. Sounding Line Crossings.

Agreement of sounding line crossings is satisfactory.

3. Depth Curves.

The usual depth curves may be satisfactorily drawn.

4. Junctions with Contemporary Surveys.

The junction with H-6458 will be considered when that sheet is received from the field.

5. Comparison with Prior Surveys.

No prior hydrographic surveys have been made in the area covered by the present survey.

6. Comparison with Chart 8306 (New Print dated May 22, 1940)

No hydrography is charted within the limits of the present survey.

7. Condition of Survey.

a. The sounding records are neat and legible and conform to the requirements of the Hydrographic Manual.

b. The Descriptive Report is clear and satisfactorily covers all items of importance.

c. The field protracting and plotting were exceptionally accurate.

8. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

9. Additional Field Work Recommended.

This is a satisfactory survey and no additional field work is required.

10. Superseded Surveys.

There are no prior hydrographic surveys in the area covered by the present survey.

Examined and approved:

Thos. B. Reed,
Chief, Section of Field Records.

Chief, Division of Charts.

Chief, Section of Field Work.

Chief, Division of H. & T.

Applied to ckt 8306 10/1/41 PRC.
" " " 8202 via 8306 D.M.A. May 1942
" " " 8306 (10 from curve) 8/31/42 ATA

17318 4/2/79 W.J. Borawski Fully appd hydro after inspection.