

6574

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Topographic }
Hydrographic } Sheet No. 1140
H-6574

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

JUN 25 1941

Acc. No.

State ... Southeastern Alaska

LOCALITY

Glacier Bay

Sandy Cove

1931Q

CHIEF OF PARTY

Bernard
Barnes

6574

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H6574

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. 1140

REGISTER NO. H-6574

State ~~Alaska~~ Southeast Alaska

General locality ~~Southeastern Alaska~~ Glacier Bay

Locality Sandy Cove, ~~Glacier Bay~~

Scale 1:10,000 Date of survey May 27 - Sept. 21, 1940

Vessel WESTDAHL

Chief of Party Benjamin H. Rigg

Surveyed by J. C. Bose

Protracted by W. M. Martin

Soundings penciled by W. M. Martin

Soundings in fathoms feet

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by A. R. Stirni

Verified by A. R. Stirni

Instructions dated April 19, 1939, March 10, 1938

Remarks: Smooth sheet and plotting by
Seattle Processing Office.

Sandy Cove, Glacier Bay, Alaska

Instructions:

The survey was made in accordance with instructions dated March 10, 1938, ~~Supplemental Instructions~~ dated April 19, 1939. Project HT-221.

Limits:

The area covered by this sheet lies between Lat. $58^{\circ} 41.6'$ and $58^{\circ} 44.2'$ and between Long. $135^{\circ} 58.0'$ and $136^{\circ} 04.2'$. It lies on the east side of Glacier Bay and includes two anchorages, the northernmost of which is Sandy Cove (Lat. $58^{\circ} 43.3'$, Long. $135^{\circ} 59'$).

Survey Methods:

Standard methods were used in taking and locating soundings. For the most part, soundings up to ten fathoms were taken by means of the wire center mahogany hand lead line with a twelve-pound lead. In greater depths, a sounding machine was used with a registering sheave, stranded wire, and a twenty-five pound lead. Most of the wire soundings were taken with a power driven machine but on the first two days a hand machine was used because the power driven machine was out of order at the time.

All positions were located by three point visual sextant fixes on triangulation stations and topographic signals. (See Topographic Sheet Field No. A, scale 1:10,000). T-6755 1940

Discrepancies:

There are no discrepancies worthy of the name. There may be one or two places where wire soundings do not check accurately with fathometer soundings transferred from Sheet No. 2140, such as the soundings between positions 151j and 152j. These discrepancies may be due to steeply sloping bottom. $\varphi 58^{\circ} 44'$ $\wedge 136^{\circ} 00.5'$ 10 fm. diff. May be lump, accepted

Dangers:

A rock awash at M. L.L.W. in Lat. $58^{\circ} 43.97'$, Long $136^{\circ} 00.6'$. This rock lies very close to the northwest extremity of an island and therefore does not constitute a serious danger.

A shoal with a least depth of 5 fathoms at M.L.L.W. in lat. $58^{\circ} 43.0'$, long. $136^{\circ} 04.0'$, position 98e and Vol. 2, page 68. Several lines were run across this shoal and 30 minutes spent in drift sounding.

A rocky shoal with depths from 1 to 5 fathoms, south and east of Von. This shoal area is part of the chain of islands extending south-eastward from Sturgess Island.

A dome-shaped rock, bearing \nearrow feet at M.L.L.W. in Lat. $58^{\circ} 42.33'$, long. $135^{\circ} 59.6'$. This is the southern extremity of a foul area beginning at Δ DANCE, 1939. See remark in vol. 4, page 17.

Two rocks in lat. $58^{\circ} 41.4'$, long. $136^{\circ} 00.15'$. The southwest rock bares 12 feet at M.L.L.W. See Vol. 13, page 51, Sheet 2140. H 6575, 1940. The northeast rock bares $2\frac{1}{2}$ feet at M.L.L.W. See Vol. 6, page 9, position. 1, Sheet No. 2140. H 6575, 1940.

Channels:

There is a strait, two thirds of a nautical mile in width, between the Sturgess Island chain and the island which forms the south shore of Sandy Cove (Lat. $58^{\circ} 43'$, Long. $136^{\circ} 01.2'$). This strait has a shoal area in its western half but deep water is found if the eastern shore is favored.

There are two channels leading into Sandy Cove. The north channel is much the better because it is wider and deeper. There is a lump in the middle of this channel but the least depth found on it was 29³⁰ fathoms, so that it is safe for vessels of deep draft.

The south channel is good for $4\frac{1}{2}$ fathoms. Even five fathoms can be carried but this channel is narrower than the north channel. Fishing boats and seal hunters were seen to use this channel.

A ten fathom channel leads into the cove south of Sandy Cove. In entering this cove, care must be used to pass south of the rock southeast of Δ DANCE and at the same time to keep far enough off the mainland shore to avoid the boulders which lie between the high and the low water lines.

Anchorage:

There are two anchorages on the sheet. The best is Sandy Cove, which was used often by the WESTDAHL during the 1940 season. Entry by way of the north channel is easy, holding ground is good, and there is protection from winds from any quarter. It is rarely that ice drifts into the cove. The WESTDAHL usually anchored in ten fathoms (MLLW) in Lat. $58^{\circ} 43.27'$, Long. $135^{\circ} 58.95'$. *bottom?*

The south cove, ~~west~~^{East} of Δ DANCE is often used by fishing boats. It is free from dangers, except for the rocks at the entrance, already mentioned, but it is open to winds from the southwest.

Comparison with Previous Surveys:

There is no previous survey of this area.

Note on Topographic Signal Name:

Topographic signal "VON" was a whitewash which was later marked by a bronze disc, stamped "LUMP". "VON" and "LUMP" are therefore one and the same signal. It is probable that both names may have been used in the hydrography of this sheet, and also of sheet 2140. The position of this signal is Lat. $58^{\circ} 42' 1689$ meters, Long. $136^{\circ} 02' 11$ meters.

Geographic Names:

This sheet has two features which have names now appearing on chart No. 8306. One is Sturgees Island and the other is Sandy Cove. Since Glacier Bay is practically uninhabited, it is difficult to verify such names. There is no reason why Sturgess Island is not an acceptable name for the island. However, there is some doubt about the identity of Sandy Cove. Neither the bight now shown on the chart as Sandy Cove nor the anchorage just north of it have enough sandy beach to justify such a name. The one now shown on the chart does have a very short stretch of sand (between signals PUP and SEE). Mr. John Johnson, a fox farmer who has lived on Willoughby Island, Glacier Bay, for fourteen years states that Sandy Cove is the north anchorage, in Lat. $58^{\circ} 43.3'$, Long $135^{\circ} 59'$. This is much the better anchorage of the two and was often used by the WESTDAHL. It is therefore recommended that the name Sandy Cove be given to it.

Cliff Island is suggested for the island in Lat. $58^{\circ} 43.7'$, Long. $136^{\circ} 00'$, on account of the bold cliff on its north shore.

The matter of geographic names will be the subject of a separate report.

*Received
L.H.*

Statistics:

Number of statute miles of soundings --	130.7	(25.0 Handlead 105.7 wire)
Number of positions - - - - -	1683	
Number of soundings - - - - -	4563	(1386 Handlead 3177 wire)
Area in square statute miles - - - -	8.0	

H6574

TIDAL DATA

Tide reducers for the area covered by this sheet were obtained from a portable automatic tide gauge maintained throughout the season near the north end of Willoughby Island.

M.L.L.W. corresponds to 5.4 feet on the staff.

Highest tide observed -- 24.8 feet, September 4, 1940

Lowest tide observed -- 0.0, July 25, 1940

It is believed that there is very little or no difference in time or height of tide between Willoughby Island and the area covered by this sheet.

Coast Pilot Note:

Sandy Cove (Lat. $58^{\circ} 43.3'$, Long $135^{\circ} 59'$) is an excellent anchorage for small vessels. Entry by way of the deep north channel is easy, it is protected from winds from any quarter, and holding ground is good. It is only on very rare occasions that ice drifts into the anchorage. *bottom?*

Respectfully submitted,

J. Carlos Bose
J. Carlos Bose,
H. & G. Engr.
Hydrographer.

Approved and forwarded

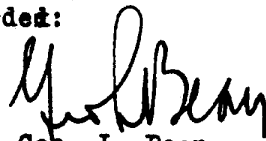
Benjamin H. Rigg
Benjamin H. Rigg
H. & G. Engr.
Chief of Party.

ADDITIONAL NOTES BY SEATTLE PROCESSING OFFICE

DISCREPANCIES

No discrepancies found in plotting other than noted in report.

Forwarded:



Geo. L. Bean
Officer in Charge
Seattle Processing Office

LIST OF SIGNALS - Sheet H-6574

From Topo Sheet T-6755:

Abe	Dam	Has	Lac	Oak	Sam	Yap
Ado	Deb	Ken	Lee	Ode	See	
Arc	Dix	Hid	Lot		Sin	Zed
		Hot	Low	Pap	Sis	Zip
Bad	Mar	Hup	Lump	Paw	Sop	
Bay	Nlf		(Von)	Per		
Big	Erg	Ida		Pol	Tab	
Bob		Ivy	Map	Pup	Tar	
Bul	Fag		Mex		Tex	
Bum	Fat	Jan	Mine	Rag		
	Fin	Jax	Mop	Ray	Ulm	
Cal	For	Jug	Mud	Ret		
Cog				Rod	Val	
Cow	Gard	Kid	Net	Roe		
	Grey	Kip	Nib		Was	
			Nix		Wit	

GEOGRAPHIC NAMES:

<u>Name</u>	<u>Source</u>
✓ TLINGIT POINT	Chart 8306
✓ TLINGIT COVE	Topo sheet T-6756 ¹⁹⁴⁰
✓ SEBREE ISLAND	Chart 8306
✓ CAROLINE SHOAL	" "
✓ GARFORTH ISLAND	" "
✓ MAYNARD COVE	Topo sheet T-6678 ¹⁹³⁹
✓ TOPEKA ISLAND	" " "
✓ TOPEKA REEF	" " "
✓ WESTDAHL RIVER	" " "
✓ BEARTRACK RIVER	" " "
✓ BEARTRACK ISLAND	" " "
✓ FLAPJACK ISLAND	Topo sheet T-6677 ¹⁹³⁸⁻³⁹
✓ BEARTRACK POINT	" " "
✓ BOULDER ISLAND	" " "
✓ CLIFF ISLAND	Hydro sheet H-6574 ¹⁹³⁹
✓ BEARTRACK COVE	Chart 8306
✓ NORTH MARBLE ISLAND	" "
✓ SOUTH MARBLE ISLAND	" "
✓ STURGESS ISLAND	" "
✓ SANDY COVE	Hydro sheet H-6574 ¹⁹³⁹

Richard E. Woodcock
Asst. Engr. Draftsman

Forwarded:

Geo. L. Bean

Geo. L. Bean
Officer in Charge
Seattle Processing Office.

Ssl

TIDE NOTE FOR HYDROGRAPHIC SHEET

Coastal Surveys

June 30, 1941

Division of ~~Hydrography and Topography~~

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

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6574

Locality Sandy Cove, Glacier Bay, Alaska

Chief of Party: Benjamin H. Rigg, in 1940
Plane of reference is mean lower low water reading
5.4 ft. on tide staff at Willoughby Island
21.7 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:

cey *Ham*
Chief, Division of Tides and Currents.

GEOGRAPHIC NAMES

Survey No. **H6574**

Name on Survey												
	A.	B.	C.	D.	E.	F.	G.	H.	K.			
<u>Cliff Island</u>												1
<u>Glacier Bay</u>												2
<u>Sandy Cove</u>												3
<u>Sturgess Island</u>												4
												5
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Names underlined in red approved
by L. Heck on 9/18/41

Remarks

Decisions

	Remarks	Decisions
1	Submitted to U.S.G.B: Await decision before inking	585360
2		U.S.G.B
3	Submitted to U.S.G.B for location " " "	585355
4		585360
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Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6574**

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

Number of positions on sheet	..1683
Number of positions checked	..16..
Number of positions revised	..None.
Number of soundings recorded	..4563
Number of soundings revised	..16..
Number of soundings erroneously spaced	..12..
Number of signals erroneously plotted or transferred	..None.

Date: *Aug. 8, 1941*

Verification by *A. R. Stirni*

Time: *74 hrs*

Review by *Harold W. Murray*

Time: *8 hrs.*

HYDROGRAPHIC SURVEY NO. H6574

Smooth Sheet One

Boat Sheet One

Records; Sounding 5 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

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H **H6574**
~~No. H~~

{ received June 25, 1941
registered June 27, 1941
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	✓	HL	Pages 1, 2 and 5
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
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VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H **H6574**

Verified and Inked by *A.R. Stirni*

Date *Aug 8, 1941*

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

15. The transfer of contemporary topographic information was carefully examined. ✓
16. All junctions were transferred. ✓
17. The notation "JOINS H" was added for all contemporary adjoining or overlapping sheets now registered. ✓
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. ✓
Notation on rock at 58° 42.35' 135° 59.6' changed to read
21. Rocks transferred from topographic survey have a dotted curve where shown thereon. ✓
"Bares 8' at MLLW" (from page 17, Vol 4 sounding records) Also changed in pencil on H-6575
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).

T-6755-1940

27. Depth curves were satisfactory except as follows:

*Positions 124k and 128k had very irregular soundings;
 Plotting was checked, also reduction of soundings time etc.*

Apparently alright.

*{ 58° 43.85
 136° 00.85*

*Accepted
 H.W.M.*

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:

Reference to Discrepancies (page 1)

Positions 151j and 152j were checked for plotting, also soundings checked for reduction, etc. H-6574 Vol. 4 page 32 of sounding records ✓

Positions 16, 26, 36 were checked for plotting, also soundings checked for reduction and time, etc. H-6575 Vol 2 pages 33, 34 of sounding records ✓

The following positions (from the records of H-6675) were plotted.
(Additional control was also plotted on a tracing) ✓

1V-3V, 47V-56V, 59V-62V, 81V-83V 15-65 17N, 18N 1J-3J ✓

1G-4G 100, 200, 7800, 7000 ✓

Soundings between positions were transferred by projector in pencil ✓

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY NO. 6574 (1940) FIELD NO. 1140

Southeast Alaska, Glacier Bay, Sandy Cove
Surveyed in May - September 1940, Scale 1:10,000
Instructions dated March 10, 1938,
and April 19, 1939 (WESTDAHL)

Soundings: Handlead and
Machine

Control: 3-Point Fixes on
Visual Objects

Chief of Party - Benjamin H. Rigg
Surveyed by - J. C. Bose
Protracted by - W. M. Martin
Soundings plotted by - W. M. Martin
Verified and inked by - A. R. Stirni
Reviewed by - Harold W. Murray, Sept. 9, 1941
Inspected by - H. R. Edmonston

1. Shoreline and Signals

The shoreline and signals originate with T-6755 and T-6756 of 1940. Several signals on T-6755 fall a few meters outside the high-water line and are undescribed. It is assumed that these are on prominent boulders as in the case of signal GREY in Lat. $58^{\circ} 44'$, Long. $135^{\circ} 59'$.

2. Sounding Line Crossings

Satisfactory.

3. Depth Curves

Satisfactory.

4. Junctions with Adjacent Surveys

The present survey is bounded by H-6575 (1940) on the north, west and south. The junction is excellent.

5. Comparison with Prior Surveys

No prior hydrographic surveys have been made in this area.

6. Comparison with Chart 8306 (New Print date 9-30-40)

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

The present survey development disproves the existence of the charted islet from T-2852 (1907) in Lat. $58^{\circ} 43.5'$, Long. $135^{\circ} 59'$. Inasmuch as photographs were used in this compilation, it is possible that the islet is an incorrect spotting of the islet shown on the present survey about 1 mile southwest or else the two small inlets shown here on the present survey were assumed to be connected and were not verified by a field inspection.

7. Compliance with Project Instructions

Satisfactory.

8. Condition of Survey

Satisfactory.

9. Additional Field Work Recommended


This is a satisfactory survey. Thirty minutes of drift sounding were spent in developing the 5-fm. shoal in Lat. $58^{\circ} 43'$, Long. $136^{\circ} 04'$. If this area increases in commercial importance it may be advisable to wire drag this kelp-free shoal and also include the 5-5/6-fm. depth 200 meters south of the 5-fm. spot. Shoaler depths of several fathoms may exist on the 43-fm. ridge in Lat. $58^{\circ} 42'$, Long. $136^{\circ} 02'$.


10. Superseded Surveys


No prior hydrographic surveys have been made in this area.

Examined and approved:


Chief, Surveys Section


Chief, Section of Hydrography


Chief, Division of Charts


Chief, Division of Coastal Surveys

Applied to cht. 8202 via 8306 2.M.A. May 1942
10fm curve applied to Chart 8306 8/31/42 HJL

Fully appld hydro to new chart 17318-17319-5C
after final inspection. 2/3/79 James Graham