

6755

Form 504  
Rev. April 1935

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

# DESCRIPTIVE REPORT

Topographic  
~~Hydrographic~~

Sheet No. A 1940  
T-6755

U. S. COAST AND GEODETIC SURVEY  
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Acc. No. ....

State..... Southeastern Alaska

### LOCALITY

Glacier Bay

Sandy Cove

19310.

CHIEF OF PARTY

*Benjamin H. King*

U. S. GOVERNMENT PRINTING OFFICE 102221

6755  
A 1940  
T-6755

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. A

REGISTER NO. T-6755

T6755

State SE. ALASKA

General locality SOUTHEASTERN ALASKA Glacier Bay

Locality SANDY COVE, GLACIER BAY

Scale 1:10,000 Date of survey May, 1940

Vessel WESTDAHL

Chief of party Benjamin H. Rigg

Surveyed by J. Carlos Bose

Inked by J. Carlos Bose

Heights in feet above MHW to ground to tops of trees, as noted

Contour, Approximate contour, Form line interval 100 feet

Instructions dated March 10, 1938 and April 19, 1939

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

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET (FIELD) LETTER A, <sup>T-6755</sup>

Sandy Cove, Glacier Bay, Alaska.

M. V. WESTDAHL

Season of 1940

Benjamin H. Rigg, Comdg.

AUTHORITY:

The survey was made in accordance with Instructions by the Director dated March 10, 1938 and supplemental Instructions dated April 19, 1939, Project HT - 221.

LIMITS:

This sheet includes Sturgess Island, Sandy Cove, and the cove south of Sandy Cove. The area lies between latitude  $58^{\circ} 41.5'$  and  $58^{\circ} 44.2'$  and between longitude  $135^{\circ} 58'$  and  $136^{\circ} 04'$ .

DESCRIPTION OF COAST:

The land from  $\Delta$  SANDY to  $\odot$  PUP is low and wooded. The area between the high and low water lines is made up of gravel and boulders. Near the high water line are pebbles which are graded in size, becoming larger with their distance out. Near the low water line are some boulders of considerable size, with heights as noted. A narrow fringe of sand lies along the high water line almost as far as  $\odot$  WAS.

Between  $\odot$  PUP and  $\odot$  SEE is a short sandy stretch. At  $\odot$  SEE is a low rocky ledge and in the bight between  $\odot$  SEE and  $\odot$  LOW is a small area of mud flats, probably covering a moraine deposit of sand and gravel. About half a mile south of  $\odot$  SEE is a hog back a little over four hundred feet in height, the highest point of which is not very well defined. It has the appearance characteristic of all hummocks formerly subjected to glacial action.

From  $\odot$ LOW northward and westward, around the large wedge shaped island as far as  $\triangle$ GOOD, all the area between the high and the low water lines consists of pebble, gravel, and boulder beach. Between  $\odot$ RAG and  $\odot$ BAD the boulders are of considerable size.

$\phi 58^{\circ}42.8 \lambda 135^{\circ}58.6$

Just west of  $\odot$ TAB is a small pool in the low water area which does not go quite dry at MLLW.

~~west~~ <sup>east</sup>

$\phi 58^{\circ}43.4 \lambda 135^{\circ}58.5$

Just ~~west~~ <sup>east</sup> of  $\odot$ ROD is the entrance of a shaft to a gold mine, now abandoned. The elevation, 129 feet, was taken to the base of the entrance. Northwest of the mine shaft, the mountain side rises precipitously, as indicated by the formlines and hachures. The 322 ft. elevation was taken to the top of a half-cone shaped avalanche deposit.

$\phi 58^{\circ}43.5 \lambda 135^{\circ}58.4$

Extending north-eastward from  $\odot$ BUL, a large boulder, is a scar formed by an avalanche. The 890 ft. elevation was taken on a rock lying high up in this slide.

The triangular island, on which  $\odot$ ABE and  $\odot$ BAY are located, has a rather even slope from south to north but the north shore, between  $\odot$ HEN and  $\odot$ ABE is bold and precipitous, the cliff wall rising almost to the summit of the island. The high point of this island is quite definite.

Sturgess Island and the other three islands in the chain have the characteristic appearance of islands that have emerged from glaciers. The largest island has a longitudinal ridge rising to a height of over two hundred feet, with more or less even slope to the waters edge. The high points of the islands are not very well defined.

Signal LUMP, a marked station, is on the highest point of a bare rock. This rock protrudes a foot or so above average higher high water but is awash at extreme high tide.

Nearly all land area shown on the sheet is densely wooded. A dense fringe of alders extends along the shore. The rest of the land is covered with coniferous and deciduous trees. The coniferous trees are mostly spruce and hemlock, the deciduous trees principally cottonwood. The cliffs, shown by hachures, are, of course, rocky surface devoid of vegetation. The area in the slide, near  $\odot$ BUL, is also bare of trees except for some patches of alder.

LANDMARKS:

The sharp summit of one island is a landmark. Its height is 406 feet above MHW. Its position is Lat.  $58^{\circ} 43' 14.14$  meters, Long.  $135^{\circ} 59' 9.56$  meters. This landmark is listed on Form 567, a copy of which is attached to this report. *Chart Letter 653 (1940)*

METHOD OF SURVEY:

Standard planetable methods were used. Nearly all topographic signals were located by intersection and resection; three-point fixes were nearly always available. The only traverse run was along the west shore of Sturgess Island between  $\odot$ ADO and  $\odot$ PAP. The closing error of this traverse was negligible.

Four topographic stations were marked with bronze discs, namely GREY, MINE, GARD, and LUMP. Descriptions and geographic positions of these stations are submitted on Form 524.

The low water line was determined by the topographer at stages of tide within 2 feet of the MLLW. Where the tide was a foot or two above MLLW, allowance for the tide was made. As a factor of safety, less allowance was made for tide where the tide was minus.

That part of the low water line which was inundated when the topographic party was surveying, was located by the Chief of Party by means of sextant fixes. In each section so located a good junction was made with the low water line located by rod readings. The following stretches were located by sextant fixes:

From ⊙BUL to ⊙SAM

From ⊙RET to ⊙MINE

From ⊙SIN to ⊙VAL

From ⊙WAS to ΔSANDY

From ⊙HAS to ⊙PAP

ELEVATIONS:

Elevations were taken to the ground where the latter was visible and to the treetops where the ground was thickly wooded.

Where the ground was visible, the elevation is indicated by a single number denoting the height.

Where the elevation was taken to tree tops, both the observed elevation and the estimated ground elevation are shown. The tree top elevation is placed above, followed by the letters TT and the estimated ground elevation is placed below in parenthesis, thus 441 TT (406). In this example the trees were estimated to be 35 ft. high.

Form lines were sketched on islands and in areas near the shore. No effort was made to carry the form lines far inland, as the instructions call for a separate form line sheet on a scale of 1:80,000.

OFFLYING DANGERS:

As shown and described by notations on the sheet. The number of

feet which any rock or reef bares is to be taken at MLLW unless otherwise noted. This figure was determined by measuring or estimating the height of the rock above the surface of the water, noting the time, and later applying the necessary corrections by consulting the record of the tide gauge at Willoughby Island.

DECLINATOIRE OBSERVATIONS:

Magnetic meridians were originally drawn with declinatoire #222 at  $\Delta$  GOOD,  $\Delta$  BRAD, and  $\Delta$  DANCE. It was noted that these observations were very inconsistent and an examination of the declinatoire showed that the instrument was very sluggish and not dependable. The observations were rejected and a new meridian was drawn at  $\Delta$  BRAD with declinatoire #209. This latter instrument has a correction of  $+0^{\circ} 21'$ , as determined from the standardization observations made at Lincoln Park, Seattle, on April 1, 1940. The declinatoire variation was  $22^{\circ} 54'E$ ; the variation from the chart was  $23^{\circ} 15'E$ .

Observation at BRAD

Date	Time	Scaled Value	Corrected Value
Sept. 21, 1940	1:40 p.m.	$29^{\circ} 16'$	$29^{\circ} 37'$

Magnetic observations with the declinometer were also made during the season at  $\Delta$  SANDY and  $\odot$  GARD.   
 *T-678 (1940)* *T-6755 (1940), not shown*

JUNCTIONS WITH OTHER SHEETS:

This sheet makes a junction on the south with Topographic Sheet No. T 6678 (1939) and on the north with Topographic Sheet Field Letter *T-6756* C (1940).

STATISTICS:

Shore line, statute miles - - - - - 13.4  
Area, square statute miles - - - - - 5.2

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. H-6575(1940)

GEOGRAPHIC NAMES:

This sheet has two features which have names now appearing on chart No. 8306. One is Sturgess 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.

Respectfully submitted,

*J. Carlos Bose*  
J. Carlos Bose  
H. & G. Engr.  
Topographer

Approved and forwarded,

*Benjamin H. Rice*  
Benjamin H. Rice  
Chief of Party

*A. M. Bohiralaki*  
A. M. Bohiralaki  
Officer in Charge,  
Seattle Processing Office

Remarks.

Decisions

	Remarks.	Decisions
1		U.S.G.B.
2	Name approved but location submitted to U.S.G.B.	585 355
3		585 360
4	Do not ink pending Board decision.	"
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GEOGRAPHIC NAMES

Survey No. T6755

Name on Survey	Source										
	A, On Chart No.	B, On previous survey No.	C, On U. S. quadrangle Maps	D, From local information	E, On local Maps	F, P. O. Guide or Map	G, Rand McNally Atlas	H, U. S. Light List	K		
<u>Glacier Bay</u>											1
<u>Sandy Cove</u>											2
<u>Sturgess I.</u>											3
Cliff I.											4
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Names underlined in red approved  
by L. Heer on 4/19/41

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
DESCRIPTIVE REPORT  
PHOTOSTAT OF

~~No. 11~~  
No. T T6755

received Jan. 14, 1941  
registered Jan. 16, 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			
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RETURN TO

82	T. B. Reed
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✓ J0302

DIVISION OF CHARTS

Surveys Section

REVIEW OF TOPOGRAPHIC SURVEY

REGISTER NO. 6755 (1940)

FIELD NO. A

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

Plane Table Survey

Aluminum Mounted

Chief of Party - Benjamin H. Rigg  
Surveyed by - J. Carlos Bose  
Inked by - J. Carlos Bose  
Reviewed by - Harold W. Murray, September 9, 1941  
Inspected by - H. R. Edmonston

1. Junctions with Adjacent Surveys

- a. The junctions on the north with T-6756 (1940) and on the south with T-6678 (1940) are satisfactory.
- b. The junction with the small scale inland form-line survey will be considered when that work is received from the field.

2. Comparison with Prior Surveys

T-2852 (1907), Scales 1:80,000 and 1:127,000

This is a copy of a phototopographic survey of the Alaska-Canada boundary and is quite generalized.

Agreement with the present survey is only fair. In some instances, identical features may differ as much as 1/4 mile in position. The present survey formlines indicate that the islands and also the hill in Lat.  $58^{\circ}42'$ , Long.  $135^{\circ}58'$  are 100 to 200 feet higher. The islet (charted) in Lat.  $58^{\circ}43.5'$ , Long.  $135^{\circ}59.0'$  is non-existent. The present survey supersedes this survey.

3. Comparison with Chart 8306 (New Print date 9-30-1940)

a. Topography

Charted topography originates with the survey discussed in the preceding paragraph and no further comment is necessary.

b. Magnetic Meridian

The magnetic meridian agrees closely with the charted value.

4. Compliance with Project Instructions

Satisfactory.

5. Condition of Survey

a. The inking of the topographic details is very good.

b. The Descriptive Report is clear, very comprehensive, and satisfactorily covers all matters of importance.

6. Additional Field Work Recommended

This is an excellent survey and no additional field work is necessary.

7. Superseded Surveys

T-2852 (1907) in part.

Examined and approved:

  
Chief, Surveys Section

  
Chief, Division of Charts

  
Chief, Section of Hydrography.

  
Chief, Division of Coastal Surveys

