4244

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

....., *Director*

State: S.E. Alaska

DESCRIPTIVE REPORT

Topographic / ~~*Hydrographic*~~ *Sheet No.* F 4244

LOCALITY

Cape Fairweather

Lituya Bay

1926

CHIEF OF PARTY

A.M. Sobieralski

applied to ckt 8402 by LAM 1947 - 8/7A 4/8/48

Descriptive Report to Accompany Topographic Sheet No. F

Lituya Bay, SE.Alaska

This topography was executed under instructions dated Feb. 12, 1926, issued to the Commanding Officer of the Str. SURVEYOR. The survey of this area was begun on July 30, 1926 and was completed during the following month.

GENERAL DESCRIPTION

The sheet included Lituya Bay and the outer coast for about 4 miles on each side of the entrance to the bay. The seasons work extended only to △ Finish and since this signal plotted a little way off the sheet, the topography between this station and △ Half was executed on a insert to the sheet. In order to show the entrance to the bay in greater detail, this area was surveyed on a 1:10,000 scale, also in insert.

The coast from Icy Point to Cape Fairweather is low and densely wooded with only occasional low, wooded hills, near the shore line. Beginning about 2 miles back from the shore line, the hills rise in a succession of terraces to the range of high, snow-capped mountains, the most important of which are Mt. Crillon, Mt. Fairweather and Mt. La Perouse.

Harbor Point, on the eastern side of the entrance to Lituya Bay, extends out beyond the adjacent shore line and can easily be identified by vessels proceeding close inshore along the coast. From off-shore it can be identified by the two prominent, conical, wooded hills known as The Paps which lie behind it, (see photograph No. 1). From positions northward or southward of the point, these hills merge into each other and can not easily be identified. The point is also identified by Harbor Point light, established this year. The light, however, is obscured to vessels proceeding close inshore, until nearly to the entrance to the bay. The large rock, 35 feet high, lying 1-1/4 miles southeastward of the light, is a prominent landmark for coasting vessels. From close inshore, this rock shows well clear of the adjacent shore line.

On ebb tide, the entrance to the bay can be identified at a distance of several miles by the strong current which flows from the entrance, causing swells and tide rips for several miles out to sea. Cormorant Rock is the largest of three rocks, bare at all stages of the tide, lying on the southeastern side of the entrance. The other two rocks lie off-shore from Cormorant Rock and have deep water close in on their seaward side, but a rocky reef makes off to northwestward of the smaller one. The last rock of this reef, shown as submerged on the sheet, is awash at minus 2 feet of tide. Passage Rock marks the end of a rocky reef

making off from Harbor Point. No sounding was taken on this rock but it is estimated to lie under 4 to 6 feet of water at low tide. This area was examined at extreme low tide and the location of the rock determined by cuts, location being clearly shown by the current boiling up around it. The area lying inshore of Passage Rock and of the submerged rock to southward, is foul, but deep water lies close outside these rocks.

La Chaussee Spit, so named by La Perouse, forms the western side of the entrance to Lituya Bay. Ths spit is low and grassy with huge boulders strewn along the shore. There are a few small scrubby trees, mostly spruce, near the end of the spit and two large clumps of Spruce trees near it's base. The end of the spit was carefully examined at extreme low tide, and it is believed that all visible rocks are correctly shown. The beach at the head of Anchorage Cove is sandy and gently sloping, but there are boulders at each end of this stretch of sand. Some old shacks are located on the northern side of Anchorage Cove and a trail, formerly a wagon road, leads from these shacks northward thru the woods to the sand beach on the outer coast.

On the northern side of Lituya Bay is a large ridge, locally known as Solomons Railroad, which is very conspicuous (see photograph No. 5 and also sketch opposite Page 202 in Alaska Coast Pilot, Part 1, of 1883). This ridge begins about one mile westward of △Bold and extends westward and then southwestward in a gently sloping curve. This ridge is densely wooded thruout it's length and was probably formed by glacial action.

Cenotaph Island, in the center of Lituya Bay, is densely wooded, with gently sloping hills except on it's southern side which is a bold sheer cliff. A group of houses, belonging to a fox farmer, is located on the eastern shore of the island, and there is another house, partly hidden by trees, on the western shore. The fox farmer here, maintains huts at intervals along the outer coast north and south of Lituya Bay for the use of shipwrecked mariners. These huts were formerly used by placer miners but are now abandoned. Provisions are always kept at the huts on the shore of Anchorage Cove.

Three glaciers empty into the head of Lituya Bay. According to local information, the glaciers in the eastern and western arms are slowly extending into the bay. The many glacial streams emptying into the head of the bay, give the waters of the bay a murky, discolored appearance.

The bay has never been known to freeze over, but icebergs are always to be found in the upper part of the bay. With northeasterly breezes, these icebergs often reach the entrance to the bay before melting, which renders navigation about the bay, on dark nights, hazardous. Ice is usually heaviest during the month of October.

The shore line along the lower part of the bay is low and heavily wooded, but in the upper part of the bay it is bold and steep. The head of the bay is formed by steep cliffs of soft shale, which are very rugged and cut up by numerous land slides, (see photograph No. 7. These cliffs have no trees and only occasional patches of sparse grass.

There is no good fresh water obtainable near Anchorage Cove or Harbor Point. Small boats can best obtain fresh water by tying up to the shore at ⊙Mist and filling with water that comes down the steep cliff there.

Photographs are transmitted with this sheet, showing the principal features. These photographs are numbered and the positions and directions from which they were taken are indicated on the sheet in pencil. The locations of many of the peaks shown are to be found only on the small scale hydrgraphic sheets of this season.

SURVEYING METHODS

The topographic survey of this area was carried on in advance and in conjunction with the triangulation, consequently there was no projection or signals plotted on the sheet in advance of the work. The base on the south side of Anchorage Cove was first laid off and the distance measured with a 30 m. steel tape. (This base was later measured by the usual base methods). The triangulation and hydrgraphic signals were built in conjunction with the topographic survey and were located by plane table as the work progressed. The entire topography of this area was extended from the base in Anchorage Cove by plane table traverse and triangulation methods and the projection was later fitted to this topography with only a slight (about 1/2 of one per cent) shortening of distances.

The large lake westward of Cenotaph Island was located and sketched from several points along the it's shore whose locations were determined by azimuth compass bearings on known peaks. The three lakes northward of Cenotaph Island were sketched from a point on Solomon's Railroad, overlooking them, and their positions are only approximate. There may be other small lakes and ponds than shown in the low wooded areas on this sheet. Most of the elevations on this sheet are from the mean of two or more determinations by alidade and hypsograph. Elevation of rocks are estimated.

The triangulation, hydrogaphy and topography of this area was all executed by the same party working from the Str. Cosmos. See also, Descriptive Report of Hydrographic Sheet of this area.

Respectfully submitted

Wm. D. Patterson

Wm. D. Patterson
Hyd. & Geod. Eng.

Form 567

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

DIVISION OF CHARTS, FILE NO. .....

LANDMARKS FOR CHARTS

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

Seattle, Wash. Feb. 10, 19 27

SUPERINTENDENT, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

A. M. Sobieralski

T. 4244

Chief of Party.

DESCRIPTION.	POSITION.				Datum.	Method of determination.	Charts affected.
	Latitude.		Longitude.				
	° ′	D. M. meters.	° ′	D. P. meters.			
Rock 35' high	58-35	1500	137-37	390	U.S.L.	Topo	8262
Cormorant Rock	58-36	810	137-39	440	"	"	do
Harbor Pt. Light	58-36	1010.8	137-39	336.6	"	Triang	do
The Paps (E. Pap	58-36	1243	137-37	752	"	Topo	do
The Paps (W. Pap	58-36	1592	137-38	146	"	"	do

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

11—5948

1

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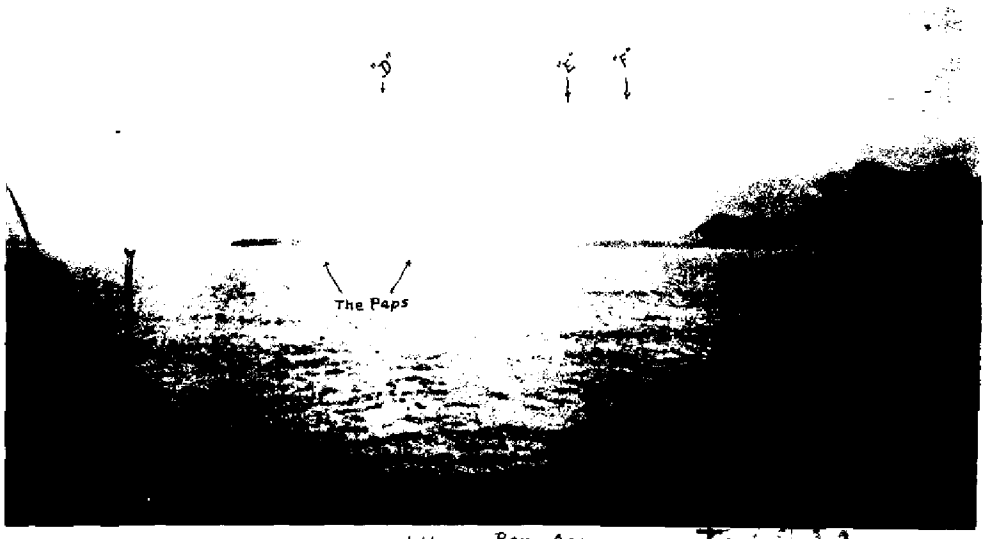

Lituya Bay, Aaa.

2

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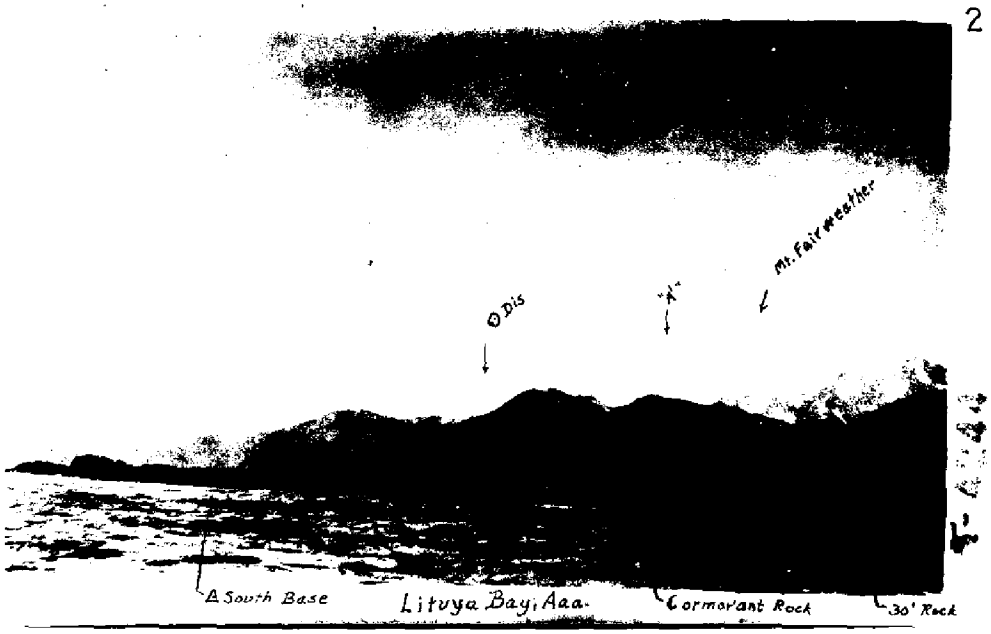
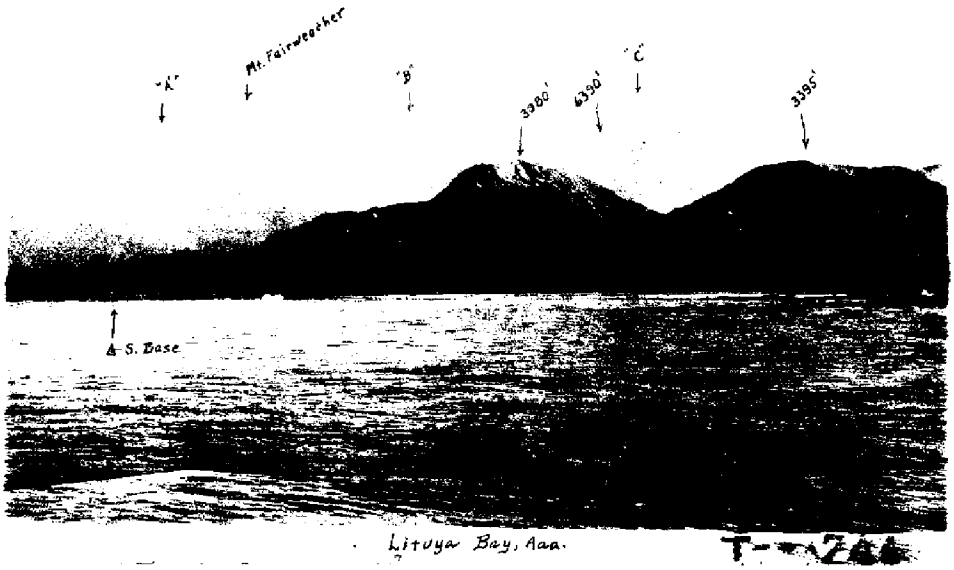


3

T 4244



Lituya Bay, Aaa.

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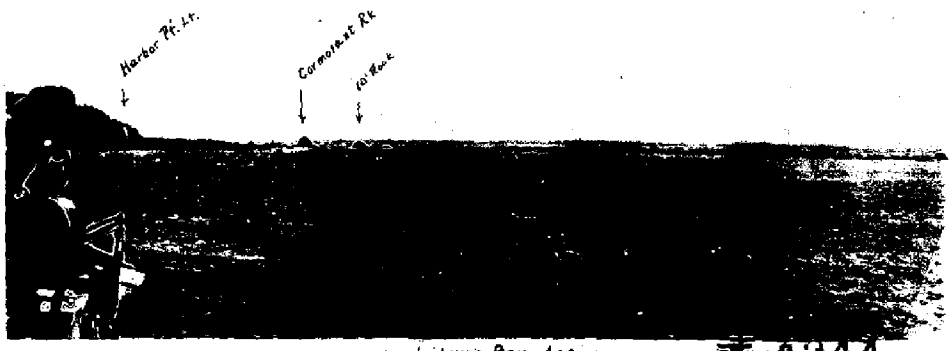
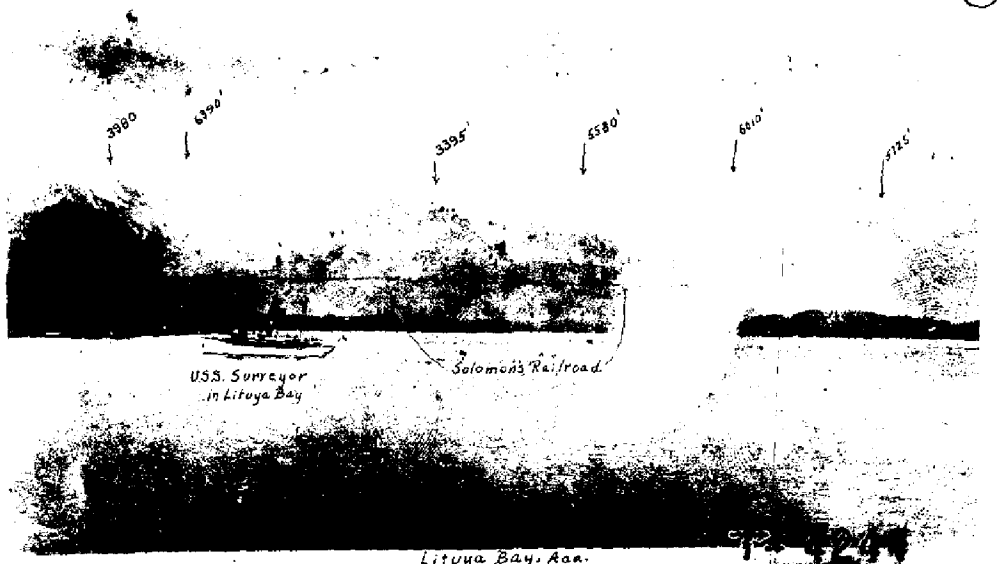


Lituya Bay, Aaa.

5



Lituya Bay, Aaa.

6

Lituya Bay, Aaa.

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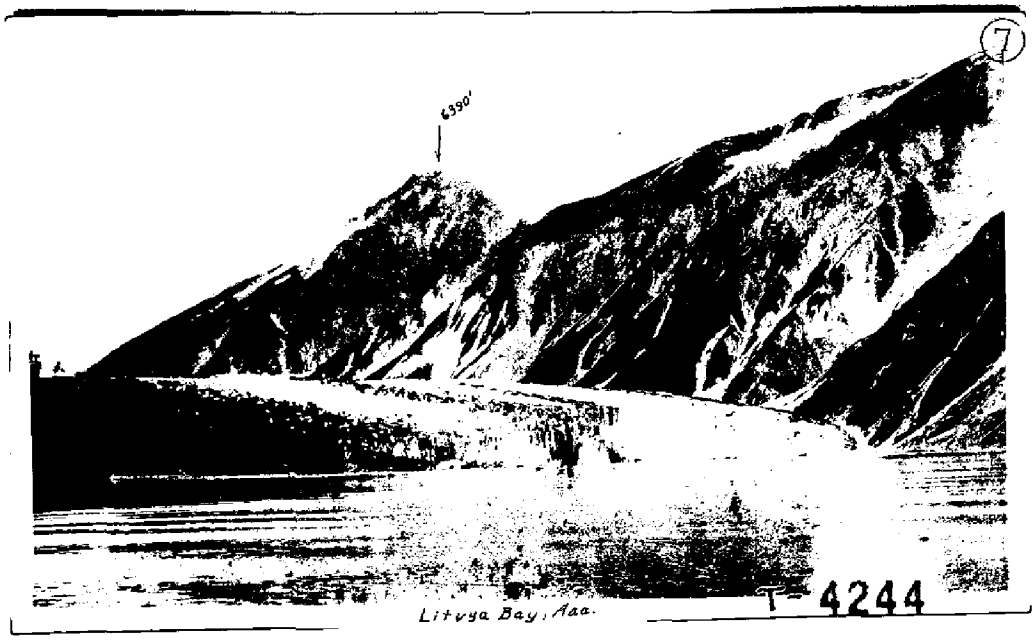

Lituya Bay, Aaa.

Form 567a
11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4244

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. F

REGISTER NO. 4244

State S. E. Alaska

General locality ~~Lituya Bay~~ Cape Fairweather

Locality Lituya Bay

Scale 1:20,000-10,000 Date of survey August, 1926

Vessel Str. SURVEYOR

Chief of Party A. M. Sobieralski

Surveyed by Wm. D. Patterson

Inked by Wm. D. Patterson

Heights in feet above M.S.L. to ground [illegible], Form line interval 100 feet

Instructions dated Feb. 12, 1926

Remarks: Landmark Sk. and 7 Photos, with Desc. Rep.

GPO