

4772

Diag. Cht. No. 8152-2

4772

Form 504

**DEPARTMENT OF COMMERCE**  
U. S. COAST AND GEODETIC SURVEY

....., Director

G. & G. SURVEY  
L. & A.  
MAY 11 1928  
Acc. No.

State: SE. Alaska

---

**DESCRIPTIVE REPORT**

~~Topographic~~ } Sheet No. <sup>3</sup> 4772  
Hydrographic }

---

LOCALITY

W. Coast of Prince of Wales I.

N. Part of San Alberto Bay

---

1927

---

CHIEF OF PARTY

H.A. Cotton

GOVERNMENT PRINTING OFFICE

S-64

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET NO. 3 4772  
4772

SAN ALBERTO BAY

U.S.S. EXPLORER

Season of 1927

Scale 1:10,000

**AUTHORITY:**

The hydrography was executed in accordance with instructions of February 18, 1927 to the Commanding Officer of the Steamer EXPLORER.

**LIMITS:**

Previous sounding in this locality was carried to a diagonal line from Klawack Inlet Lighthouse NW to Pt. Ildefonso on the SW point of the prominent island on the NE side of San Christoval Channel. This line cut across the Witness Rocks leaving their determination incomplete; it passed to the southward of Witness Islands; it cut across Alberto Reef, passing to the SW of San Alberto Id. and thence on to the Light. To the eastward of the light the hydrography was considered complete to the southward of Clam Id.

The work of the present sheet therefore makes an overlap on the above described line with development of the uncertainties around the Witness Rocks and Alberto Reef and carries the sounding throughout the upper reaches of San Alberto Bay; in the channels among the islands in the SE part of the area; and up through the passage toward the head of Klawack Inlet to a junction with sheet 4 near Triangulation Station NOB.

**CONTROL:**

The control was based on a scheme of triangulation resting on the recovered line Alberto - Parida with Triangulation Station WITNESS as a check.

Much of the topography throughout the southeastern part of the sheet including the Witness Islands and Fox Farm Id. had been executed in previous seasons. Much of this shoreline proved to be inaccurate mainly in azimuth, for while the general shapes of the islands were correct they were all somewhat misplaced. This caused more trouble than a new survey would have been, for the net result was that many of them had to have a new survey anyway, inasmuch as the topographic signals used in the hydrography were located by topographic methods. These locations were gotten largely by intersections by planetable from triangulation stations of which there were many scattered throughout this area. The upper reaches of the bay comprised an entirely original survey, the chart of this area showing only a very sketchy reconnaissance and no soundings.

Information about this upper part was obtained from fishermen at Klawack who use this passage frequently, though in general it may be said to be relatively unimportant. It is a somewhat shorter route from Klawack when proceeding direct to the westward out through San Christoval Channel; otherwise the southern passage past Klawack Inlet Lighthouse is much to be preferred. As this western channel and the upper part of San Alberto Bay have no commercial importance in themselves it is doubtful if this passage ever becomes a much traveled thoroughfare.

METHODS:

Much of the area on this sheet has a depth less than ten fathoms. Much of it is very irregular. Consequently it was decided to sound the entire area by a system of lines approximately 100 meters apart. The hand lead was used to about 13 fm; thereafter the hand sounding machine. Ranges were steered throughout the work, good ones in general being abundant.

Much time was spent in being on the job at minus tides to spot pinnacle rocks and limits of shore line at low water. Between the observations of the topographer and the hydrographer it is felt that all rocks which bare at zero tide have been located. Equal degree of certainty cannot be felt regarding submerged rocks and shoals, for though nearly all indications were investigated except in very broken and unimportant localities, the precipitous character of the ledges makes safety dependent upon wire dragging, something the area probably doesn't rate.

Important shoals were developed by cross lines revolved around a distant back range.

DANGERS NOTED:

Leading toward the head of Klawack Inlet two channels may be used, one of which is clear, but narrow. This leads across the circular bay formed by the Alberto Islands passing to the westward of Wadleigh Rock due north through the 250 meter gap between North and Near Islands. A shoal with four fathoms on it lies 800 meters NNW from Klawack Inlet Light House. This shoal has been crossed repeatedly and is believed to be clear of pinnacles. Wadleigh Rock is a combination of two patches; one, the western patch, bares at  $\frac{1}{2}$  tide, the other, the eastern patch, bares at zero tide. This reef is long in a North and South direction and abrupt on the west side and can be passed safely within 200 meters. The gap between North Island and Near Island is clear but for an 8 fm. ledge from the East side extending SW into mid channel.

Passing through this gap deep water is found to the eastern point of Sand Island first encountered. This is marked by a long sand spit with abrupt point. From the point of Sand Island a narrow channel is found in a NE (true) direction between ledges which lie off the SE point of Fox Farm Id. and two dangerous reefs, the most westerly of which stands ENE 600 meters from Sand Id. Passing these reefs a mid-channel course finds the best water to the open deep area NNE of Fox Farm Id. Clear, deep water is then to be found on up the channel past the fish trap toward Klawack Inlet.

This above described route is the one local fish boats take when going from the vicinity of Klawack Inlet Light House to the upper reaches of the bay.

The alternative route passing to the westward of Alberto Id., Wee Id. and Fox Farm Id. is more open, but is longer and must pass over comparatively shoal and broken area between Fox Farm Id. and The Triplets on which Triangulation Station AXEL is located. ~~Mid channel at this point gives the best water.~~ The best water lies close to  $\Delta$  AXEL.

Some distance can be saved by passing through the 5 fm. channel immediately west of Alberto Id. (between the island and Alberto Reef) though this channel is narrow. Care must also be taken after passing Wee Island to avoid the shoal spit off the west side of Fox Farm Id.

The west tangent of Wee Id. on the east tangent of The Triplets gives a good range to clear Alberto Reef. The area north of The Triplets is foul and should not be traversed, although local knowledge permits fish boats bound toward San Christoval Channel to follow the comparatively deep narrow channel between Bar and End Islands and the series of reefs and rocky islets extending in a SE direction.

The Witness Islands are definite and surrounded by deep water close in. Two very dangerous rocks, bare at zero tide in the open area a third of a mile north of the Witness Islands, are surrounded by deep water, and are not covered by kelp.

The bay north of Tom Islands has no importance though in the 1927 season a floating fish trap was anchored to the beach just north of the point where station NU is located. A clear passage is found from this bay toward San Christoval Channel in mid channel west of the Tom Islands.

The passages around Lava Island and in the narrow inlets in this locality are of no importance and are foul and irregular. The channel between Lava and ~~Mid~~<sup>NEAR</sup> Ids. is foul. That between Alberto and North Ids. has deep water in mid channel, though rocky ledges protrude SW and NE from these islands nearly to mid channel.

A shoal regular channel is to be found between Sand and Fox Farm Islands.

Deep water surrounds Wee Island.

The channel between Clam Id. and Klawack Reef is too shoal and rocky for safe passage. It should be used with care. Kelp marks the NE edge of the reef off Clam Id.

A comparatively clear, deep channel surrounds the N and E sides of Clam Id. A rocky reef protrudes from the SE end of the island NNE nearly into mid channel and two small shoals are found 200 meters off the NE side. Two shoals marked by kelp stand 1/3 mile north of the W end of Clam Island. Otherwise this channel can be used with care by boats coming from Craig into the bay surrounded by the Alberto Islands. A floating fish trap was anchored in the eastern end of this channel a quarter mile NE of Clam Id.

TIDES AND CURRENTS:

A tide staff was erected on the central island of the Triplets, with simultaneous observations carried on for 52 hours with the portable automatic gauge at Craig. Craig observations were used for the tidal reductions in this area with the small time and height correction found from the simultaneous comparison.

Currents are not strong anywhere in the area of this sheet except in the channel between High and End Islands. Here as much as two knot velocities were estimated.

OUTSTANDING FEATURES:

The islands and shores around this sheet present no unusual characteristics. The elevations are moderate, High Island rising to only 740 ft.

Fox Farm Id. is the largest island. It is flat.


Only one man lives within the confines of this sheet. He is the fox farmer living in the cluster of shacks about his farm on the east side of Fox Farm Id. His residence there seems quite temporary.

The water areas are fished somewhat by local Isaac Waltons from Craig and Klawack. There are three trap sites in operation during the season:


- (1) Between Clam and Entrance Ids. (Floating trap)
- (2) In the bay north of the Tom Islands. (Floating trap)
- (3) In the channel  $1\frac{1}{2}$  miles NE of End Id. making off the shore of High Id. (a pile trap).

Coast Pilot notes for this area accompany this report.

Examined, approved and forwarded,

  
Harold A. Cotton,  
Commanding Officer,  
U.S.C. & G.S.S. EXPLORER

Respectfully submitted,

  
C. A. Egner,  
Executive Officer,  
U.S.C. & G.S.S. EXPLORER.

STATISTICS

DATE	VOL.	DAY	BOAT	STA. MI.	POS.	SOUNDINGS		AREA	MILES TO & FROM WK.
						HAND	MACH.		
5-18-27	1	a	T #1	17.6	116	247	217		0
5-19-27	1	b	T #1	7.8	72	301	12		0
6- 4-27	2	c	T #1	6.7	81	270	0		10
6- 6-27	2	d	T #1	20.0	144	226	222		5.5
6- 7-27	2	e	T #1	13.2	89	396	9		1
6- 7-27	3	e	T #1	5.9	42	171	15		.5
6- -27	3	f	T #1	18.2	151	300	171		.8
6-10-27	3	g	T #1	7.6	54	74	114		4.5
6-13-27	4	h	T #1	23.0	147	207	290		2
6-14-27	4	j	T #1	2.9	22	21	48		2
6-15-27	4	k	T #1	15.3	115	201	154		1.5
6-15-27	5	k	T #1	6.8	49	218	0		.1
6-16-27	5	i	T #1	13.7	131	447	29		2.8
6-17-27	5	m	T #1	16.6	121	148	198		1
6-17-27	6	m	T #1	7.2	50	156	38		1.5
6-18-27	6	n	T #1	9.3	74	122	93		3.5
6-24-27	7	p	T #1	6.4	64	219	14		8
6-25-27	7	q	T #1	4.9	71	251	38		5.5
6-28-27	7	r	T #1	9.4	111	432	0		3
7-21-27	7	s	# 47	2.8	29	101	5		3.5
7-21-27	8	s	# 47	7.7	71	253	0		3.5
TOTALS				223.0	1804	4761	1667		60.2

121  
7279

COAST PILOT NOTES

**KLAWAK INLET**

page 141

There seems to be a difference in this locality as to the spelling of this name. The name of the postoffice is Klawack. That on the chart is Klawak.

All names of islands and groups noted herein, except those listed as such on the chart, are arbitrary names for identification purposes. Klawak Inlet-- First paragraph sufficient.

Craig-- Strike out paragraph and substitute the following:

Craig, a small town on the island at the south end of the inlet, southeast from Fish Egg Island, has a post office, cannery, wireless station, several general stores, a hotel, Union Oil Co. wharf, and a machine shop equipped to handle customary repairs to smaller fishing craft. The sawmill is no longer in operation and the wharf is going to ruin. The machine shop is on the east side of the island where boats are shored up on the sand flats for repairs. Small craft tie up to a float here and to two floats in the town proper; large boats use the cannery wharf which is somewhat difficult of approach due to a reef off the corner of the dock, the end of which is marked by a red nun buoy. In the lower end of Klawak Inlet about  $\frac{1}{2}$  mile north of Craig, a reef with one fathom (1.8 meters) lies nearly in mid channel. This is marked by a red nun buoy and can be passed safely on either east or west side, the east side being the deeper. Klawak Inlet is approached from the west (San Alberto Bay) through a clear channel 200 meters wide between Fish Egg Id. on the south and Klawak Reef on the north. The southern Extremity of this reef is marked by a lighthouse with steel frame on concrete base. This channel is about  $\frac{1}{2}$  mile long, the north side of each end being marked by a black can buoy. Klawak REEF is a series of rocky ledges extending a mile from the lighthouse NE to the western end of Clam Island, a flat semicircular island  $\frac{1}{2}$  miles NNE of Fish Egg Island. A ledge with two rocks bare at half tide lie to the southward of the channel. A two fm. (3.7 m) spot lies  $\frac{1}{2}$  mile NNE of Cole Island.

ENTRANCE POINT-- Supplement this paragraph with the following:

A channel leads between Entrance Point and Clam Island. NE and West into the circular bay surrounded by the Alberto Island. This channel is clear except for a reef extending NNE into mid channel from the SE point of Clam Island and for two small shoals  $\frac{1}{4}$  mile off the north side of the island. Clam Island is a low wooded island about 1 mile northward of Fish Egg Island.  $2\frac{1}{2}$  miles NNE of Entrance Point on the east side of Klawak Inlet is Klawak Id., which is about  $\frac{3}{4}$  mile long and  $\frac{1}{2}$  mile wide. This island is separated from the eastern shore by Klawak Harbor. A 2 fm. (3.6m) shoal lies about  $\frac{1}{4}$  mile SW of the southern end of the island. The native village of Klawak (or Klawack) is situated on the east side of the harbor on a ~~peninsula~~ peninsula of land formed by the outlet of Klawak Stream on the south and a spacious bay



on the north and east. Kláwak is an Indian village. It has a postoffice, school, two general stores, and two canneries, one of which is on the west side of the harbor. Both canneries have wharves. The harbor occasionally freezes in winter with a thin coating of ice.

The paragraph beginning The Approach is sufficient.

Supplement the general heading with the following:

The head of Kláwak Inlet consists of a series of irregular flat islands broken by a great number of intricate channels. High Island is a narrow wooded island about five miles long and two miles wide at its widest point, around which a channel reaches from Kláwak Inlet into San Alberto Bay. MID ISLAND is a large irregular comparatively low flat island which extends from CEM TARY POINT, 5 miles north of Kláwak Beacon in a northerly direction about two miles. A channel can be followed at high tide around MID ISLAND joining at its northwestern corner the branch from San Alberto Bay and the better channel along the east side of HIGH ISLAND. This channel on the east and north side of Mid ID. is closed at low water and requires local knowledge for passage at high water as it is shoal in many places and contains many rocks. The channels from San Alberto Bay and Kláwak Inlet meet at the north point of TIP Island, where a 200 yard (180 m), deep, passage separates TIP and TURN islands at the north end of HIGH Island. The main channel along the eastern side of High Island is clear and deep and the beaches can be approached close to. The channel from San Alberto Bay along the NW side of High Island must be sailed with care, though plenty of water is available.

BIG SALT LAKE is an arm of the sea which is more lake than bay. It is blocked off from the head of Kláwak Inlet by the intricate passages on the NW and SE side of OBSTRUCTION ISLAND. This is a very flat irregular island about 1½ miles in its longest dimension which acts as a dam to the waters of Big Salt Lake and past which on its NW and SE sides the water the tide gains entrance to the Lake at its higher stages. . . Big Salt Lake gets its name from the fact that this inlet, which has otherwise the characteristics of a lake, is salty due to the tide reaching high enough to reverse the natural flow outward. The lake has small commercial importance due to its restricted entrances. Indians at Kláwak, using their local knowledge in gaining entrance, hunt and fish in the lake; cedar, which abounds on the shores and is easily accessible, is used extensively in a local way. The head of the lake is but 12 miles overland from the head of Kasaan Bay on the east side of Prince of Wales Id. There is considerable local agitation for a road across the island following the eastern shore of the lake leading from Craig or Kláwak.

The main body of the lake is free from dangers. The entrances and western part, which are very broken, require local knowledge. This knowledge can be obtained at Kláwak. The entrances should not be attempted without a guide. At the north entrance, a barrier ledge restricts the flow of water so that a falls of five feet occurs at zero tide. The channel below the falls is rocky and full of whirlpools with foam extending to a half mile downstream. As the tide rises slack water takes place over the ledge with the tide at about 5.3 ft (1.5m) above M. L. L. . . Thence the tide flows into the lake for about four hours over the top of the high water and down to approximately the 6 ft. stage, when another slack moment occurs. From that time on for about 8 hours the water flows out, the distinct falls repeating itself. Passage is made at or about slack water, which takes place (depending somewhat on the height of high water) about 2 hours before and after high water at Kláwak. The entrance is very narrow. 8 ft.

(

is the limiting depth at slack water. Passing through the gap, a turn is made southeastward, the best water being about 100 yards from the NE shore. a rock with 1 fm. (1.6m) at L. W. lies 60 yards (55m) off the point of a small island at the prominent turn in the channel 3/8 mile SE (true) from the north entrance. Overfalls make this point dangerous if negotiated at other times than slack water. From this point into open water in the lake the midchannel is clear, though the currents are strong. A four-fathom shoal lies in mid-channel ~~1/2~~ 1/4 mile south from the point of the small island at the east end of the main passage from the entrance. Passing this, the lake broadens and is free of dangers to the eastern end.

The South Channel is a rocky, very irregular rapids full of boulders. Swift currents and sharp turns make it hazardous for boats. It is used by local loggers with rafts bound from the lake to Klawak at high water slack, at which time there is sufficient water for small tow-boats provided they know how to avoid the rocks. The soundings indicate the location of the deepest water though they are in themselves no criterion as soundings here are quite ~~XXXX~~ worthless. Only local knowledge is of value in this channel. The north channel is a much better and safer route into the Lake.

The broken water area SW of Obstruction Island between the two entrances can be traversed with care at high water both NE and SW of the central cluster of islands.

Page 142

DIRECTIONS, KLAWAK INLET—Complete as far as they go. Supplement with the following:

DIRECTIONS, KLAWAK to BIG SALT LAKE via NORTH ENTRANCE.

Passing to the westward of Klawak Beacon, a mid channel course between High and Mid Islands finds clear water. The most westerly point of Mid Id. may be passed close in. Altering the course to pass between TIP and TURN Ids. in mid-channel, the western side of Turn Id. is kept within 100 yards to avoid rock pinnacles west of the island. Reaching the north point of Hob Id. (which stands just NE of Turn Id) steer directly for Dog Id., and turn right when 100 yards or meters off, steering for the nearest point of Round Id. to clear the rock in the channel 125 meters (140 yards) west of Round Id. Making an easy curve to the left, head for the small opening immediately to the north of a small ~~OPENING~~ island covered with a clump of trees. This opening is identified as being precipitous on the channel side, a bare ledge of rock lying on the north side of the 15 meter gap. Care should be taken to pass through on a midship helm in mid-channel if the current is running. Continuing for 150 yards (135m.) beyond the gap, the channel is followed to the SE seeking best water about 100 yards from the NE shore. Taking a wide turn around the sunken rock at the bend in the channel 1/3 mile from the entrance, a mid-channel course carries ~~XXXX~~ clear of dangers until the lake is reached.

Page 143.

SUB-HEADS under SAN ALBERTO BAY. Complete to ALBERTO ISLANDS.

Supplement with the following: NORTH Island, NEAR ISLAND, and LAVA ISLAND are three of the Alberto Group on the north side of the circular bay east of Alberto Island. North and Near Islands are low and wooded with steep sides. Lava Id. is low, irregular, and is bordered by shoal water on the west and south. A channel nearly closed on the SE side surrounds this island separating it from High Island. The channel between Lava and Near Islands is rocky and dangerous. Kelp is seen off the SW corner. A rock bare at low water lies 150 yards off the SE corner of Near Id. A clear channel

separates North and Near Islands. The channel between Alberto and North Islands has deep water but reefs project NE ~~NNE~~ from Albert Id. and SW from North Island.

Page 143.

Alberto Reef.-- Insert the following: A five fathom (9.1m) channel separates Alberto Reef from Alberto Id. The deepest water is found 100 meters (yards) from Alberto Id.

Passing to the westward of Alberto Reef, the danger is cleared by a range with the west tangent of Wee Id. (see below) on the east tangent of The Triplets (see below).

Page 143.

Wadleigh Rock.-- Insert the following: This rock consists of two reefs separated by about 100 yards (100 meters). The west reef bares at 2/3 tide; the east reef bares at zero tide. The shoal is  $\frac{1}{2}$  mile long in a north and south direction, steep on the west side and can be passed within 100 yards.

Page 143.

Additional sub-heads and notes to be inserted under the general heading:

A shoal with four fathoms on it lies  $\frac{1}{2}$  mile NNW of Klawak Inlet Light-house.

A channel is found passing around the north side of Clam Island. (See Klawak Inlet) The shoalest point of this channel is between Entrance Point and the SE point of Clam Id. A reef extends NNE from the SE point of Clam Id. a distance of  $\frac{1}{8}$  mile. Two shoals marked by kelp lie  $\frac{1}{3}$  mile North (true) of the west end of Clam Id. The passage between Clam Id. and Klawak Reef is shoal and rocky. It can be used at high water by small boats. The bays and channels north and east of Clam and Entrance Islands are irregular and foul. A spar buoy marks the tip of the shoal 200 meters (280 yards) north of Entrance Id.

~~SAND~~ SAND ISLAND is a small wooded island  $\frac{1}{2}$  mile north of North Island. A sand spit extends 100 meters (yards) east of the tree line on the east side of the island. Deep water lies close in to the end of this sand spit. The west approaches to this island are shoal. Deep, clear, water is found between Sand and North Islands.

WEE ISLAND is a wooded islet with steep sides 1 mile NNW (true) from Alberto Id.

FOX FARM ISLAND is a flat wooded island  $\frac{3}{4}$  mile in a north and south direction and  $\frac{1}{2}$  mile wide. It lies one mile north of the Alberto Group. This island is a fox farm, the owner living on the east side of the island. Two small islets joined to the main part of the island by a sand spit stand off the east side of the island a distance of 200 yards. Two reefs, the highest rocks of which bare at half tide lie  $\frac{1}{3}$  and  $\frac{1}{2}$  mile ENE (true) of Sand Island, being an extension of the point of High Island. The channel between the west shoal and Sand Id. and Fox Farm Id. is narrow, but clear, and is preferred by boats using this locality. North of these reefs a mid-channel course is clear of dangers in the area east of Fox Farm Id.

THE TRIPLETS are an irregular group of small islands appearing as three islands a half mile NW of Fox Farm Id. These are wooded. A reef bare at

half tide lies 1/4 mile west of this group.

The channel between this group and Fox Farm Island shows the Triplets to be an extension of the formation of Fox Farm Id., a shoal spit nearly closing the channel. The deepest point is 6 fm. (11m) is 200 yards (200 meters) SE of the east island of the group. A five foot (1.5m) spot is found nearly in mid-channel SE of The Triplets. The area north of the Triplets is irregular and foul.

Two isolated rocks, rising from small shoal areas, lie in the open water north of The Witnesses. One is 1/3 mile NNW (true) from the larger of the Witnesses; the other is 700 meters (770 yards) NNE (true) from the same island. These are bare at M. L. L. W., covered with green grass so as not to be easily visible, and are not marked by kelp.

The TOM ISLANDS are an irregular group a mile NNW (true) from the Witnesses. They are wooded and can be approached close in. The bay north of the TOM Islands is regular and of no special importance.

BAR ISLAND and END ISLAND stand in the NE corner of San Alberto Bay as an extension of a peninsula from the main part of the island. Breaks in the tree line give them the appearance of islands though they are joined at all stages of the tide to the mainland. They serve to narrow the channel causing strong currents in this deep area.

The main channel leads NE between these islands and High Island, toward the upper end of Klawak Inlet and Big Salt Lake. It is clear, becoming gradually shallower. The south side of the channel should be favored passing through or around the fish trap so as to avoid the rock, awash at M. L. L. W. 200 yards (180 m) south of the group of small islands which lie 3/4 mile NE (true) from End. Id. Another rock, bare at 1/2 tide lies 1/2 mile NE of the fish trap and 1/8 mile ESE of a bare rounded rock which marks the southern extremity of a prominent rocky ledge.

The area north and east of Bar and End Ids. is clear and regular, but all of the north side of the bay is foul and should be avoided. A small bay across the channel SE from End Id. formed by the hook in the shoreline is too shoal for anchorage. The indentation in the shoreline of High Island 1 mile ENE (true) from End Id. is marked by a vertical cliff 200 ft. (62 m) high which shows prominently.

Page 144.

DIRECTIONS, SAN ALBERTO BAY.-- Supplement with the following:

Directions, San Alberto Bay to Head of Klawak Inlet and Big Salt Lake. Channels are available only for small craft.

Rounding the black can buoy marking the west end of the channel south of Klawak Reef, steer 13° (true) (N~~W~~W mag.) to pass in mid-channel between North and Near Islands. This course will pass 200 yards (180m) west of Wadleigh Rock across the circular bay formed by the Alberto Islands. When the east end of North Id. is on the port beam alter the course to 1 degree (true) (NW xN~~W~~N mag) to pass close to the east point of the sand spit off Sand Id. Continuing past the end of the spit for 150 yards bring the end of the spit in range with the west tangent of Alberto Id. This range will clear the reef on the east side, and shoal water on the west side off Fox Farm Id. Closing another range, the tree line of Fox Farm Id. on the south tangent of WEE Id. alter to a mid-channel course and continue until the small islands off the east side of Fox Farm Id. bear west (true). Steer N (true) (N~~W~~N mag.) until

NNW 5/8 W

The Triplets close on The Witnesses. Change course to  $34^{\circ}$  (true) (N  $3/8$  E mag.) in mid-channel, passing through the fish trap  $1\frac{1}{2}$  miles away and continue, favoring the east side of the channel until the northeast point of Tip Id. is reached. At this point continue along Turn Id. by courses indicated in Directions from Klavak to the North Entrance to Big Salt Lake.

An alternative route keeps to the open water to the westward of Alberto Reef by bringing WEE Id. in range with the most easterly island of the Triplets. This range clears Alberto Reef. Reaching the westward side of WEE Id. steer N (true) (NW $\frac{1}{2}$ N  $\frac{1}{4}$ N mag.) to clear shoal water off the west side of Fox Farm Id. a distance of  $3/8$  mile. Alter course to pass 150 yards east of The Triplets. When these bear W (true), change course to  $75^{\circ}$  true (NE mag.) and run  $\frac{1}{8}$  mile to open water. Then bring the east tangent of the Triplets on the North tangent of the Witnesses and change to  $34^{\circ}$  true (N  $3/8$  E mag.) and continue on courses as before.

In proceeding from the head of Klavak Inlet toward San Christoval Channel the above courses are steered in reverse order until the Triplets are reached. Then bring the most easterly of this group to bear N (true) at a distance of  $1/6$  mile. Change to  $270^{\circ}$  true (SW $\frac{1}{2}$ W  $\frac{1}{4}$ W mag.) passing a short distance south of the Tom Islands. This course will find clear water to San Christoval Channel passing south of Point Ildfonso.

578H.

11

Copy for Record Section files.

May 17, 1928.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in  
6 volumes of sounding records for

HYDROGRAPHIC SHEET 4772

Locality: SAN ALBERTO BAY, ALASKA.

Chief of Party: H. A. Cotton, 1927.  
Plane of reference is M L L W  
5.8 ft. on tide staff at Craig.

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

*G. Wade*

Chief, Division of Tides and Currents.

Section of Field Records  
Report on Hyd. Sheet No 4772  
Surveyed in May - June 1927

Instructions dated Feb. 18, 1927 (Explorer)

Chief of Party - H. A. Cotton  
Surveyed by - C. A. Egner  
Protracted by - A. Thomsen  
Plotted by - D. M. Watt  
Verified and inked by - J. T. Steasin

1. The records conform to requirements with the following exceptions. There were a number of shoal soundings which were not O. Red, although some had been. The word "same" was used too much, instead of repeating names of signals on each page. No courses were entered.
2. The plan and character of development conforms to the requirements of the General Instructions.
3. The plan and extent of development satisfies the specific instructions. The ground is uniformly covered but shoal development is not close.
4. There are not many cross lines but the soundings agree pretty well for an area of such irregularity.

5. The information is sufficient for drawing the usual depth curves.
6. The junction with the old sheets, #. 3539 and #. 3547 is adequate and the junction with the contemporary sheet #. 4774 is also satisfactory.
7. Comparison of the smooth sheet with the boatsheet should have disclosed numerous rock symbols shown in ink on the boatsheet, which were not indicated on the smooth sheet, nor were they shown on the topographic sheet. Some of these are rather prominent rocks which undoubtedly exist. Others close to shore, may not represent actual rocks, but may have been placed on the boatsheet simply to denote a rocky condition. In order to be on the safe side, all of these rocks have been placed on the smooth sheet. Many of these are close to sounding lines, but in only one instance is there any mention made of them in the records.
8. The character and scope of the surveying is good except for the omission of the location of some of the rocks and the failure to develop some prominent shoal spots.
9. The usual amount of field drafting was well done.

Reviewed by R. L. Johnston

Feb. 1929.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY  
L. & A.  
MAR 27 1928  
Acc. No.

REG. NO. 4772

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. 3

REGISTER NO. 4772

State S. E. Alaska

General locality West Coast Prince of Wales Island

Locality North Part of San Alberto Bay

Scale 1:10,000 Date of survey May - June, 1927.

Vessel Steamer EXPLORER

Chief of Party Harold A. Cotton

Surveyed by C. A. Egnor

Protracted by A. Thomsen

Soundings penciled by D. M. Watt

Soundings in ~~fathoms~~ feet

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated February 18, 1927.

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4772 -

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

Number of positions on sheet 1804 . .  
Number of positions checked 560 . .  
Number of positions revised 4 . . .  
Number of soundings recorded 6398 .  
Number of soundings revised 60 (apr.)  
Number of signals erroneously  
plotted or transferred . . . NONE . .

Date: January 22, 1929 -----  
Cartographer: John J. Stassin -----