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Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: ~~Hawaiian Is.~~ ALASKA

1—5613

DESCRIPTIVE REPORT.

Sheet No. H-2 4576

LOCALITY:

Shelikof Strait

Bluefox Bay and Offshore -

West Entrance to Shuyak

Strait

1926

CHIEF OF PARTY:

C. Shaw

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DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET H - 2,

WESTERN ENTRANCE TO SHUYAK STRAIT, ALASKA.

DATE OF INSTRUCTIONS.

Hydrography of western entrance to Shuyak Strait, Alaska was done under instructions to Lieut. Charles Shaw, dated March 27th, 1926.

LOCALITY.

This sheet covers the following area; at the southwest in Shelikof strait from latitude 58° 30.5 N and longitude 152° 50.5 W along the south side of the work to Rocky Islet, thence to the western entrance point of Bluefox Bay, including all of Bluefox Bay, thence north to Lighthouse Point and across Shuyak Strait to Cape Newland, Shuyak Island, and beyond one mile to northward, thence along the northern side of the work to latitude 58° 34.5 N and longitude 152° 50 W. This area is from the 100 fathom curve in Shelikof Strait to the western shore of Afognak and Shuyak Islands, a distance of about 7 miles off shore.

KIND OF SURVEY.

This is an original survey executed entirely in new area on a polyconic projection of 1: 20,000 scale.

LINES RUN.

Lines were run normal to the shore lines in the bays, and for inshore development work lines were run approximately normal to the outer points and islands. Off shore the lines were run normal to the general trend of the coast. Ranges were run for all lines except two or three off the western entrance to Shuyak Strait where the lines looked down the strait with no ranges possible.

SPACING OF SOUNDING LINES.

In depths over 20 fathoms the sounding lines were spaced approximately 200 meters apart even out in depths at the 100 fathom curve. Otherwise where irregular or shoal water developed the lines were spaced 100 meters and closer if necessary to properly sound out the area.

In Bluefox Bay the lines were 100 meters apart with considerable extra development work in the narrow shoal channels for entering the head of the bay.

As shown on the boatsheet the shoal spots off the eastern entrance to Bluefox Bay, and west of Green Island, were developed by planting a buoy on the highest spot of the shoals, and then feeling around with the handlead for least water. Much development work was done in this area and no effort was spared knowingly to find least water in all cases.

The area about one mile in diameter just north of the western entrance point of Bluefox Bay is not complete.

It was endeavored to develop this small area at the edge of the finished area before the end of the season but continued southwest weather prevented this being done before the S. S. " Redondo " arrived on its last voyage to take the party to Seward. This area is marked off by red pencil on the boat sheet. The western entrance is blocked by many dangers, and not used.

SOUNDINGS OF 1908.

The scattered soundings ran outside Rocky Islet and parallel to Shelikof Strait in 1908 check up remarkably well with the intensive sounding done by the present party. With one exception the two systems of soundings check within one fathom, and are in depths of more than 20 fathoms.

This one exception is a sounding of 46 fathoms in 1908 and the present sounding would indicate a depth of about 70 fathoms. This 46 fathom spot is about 200 meters away from the bank where the depth is about 46 fathoms, as shown by the soundings. It is believed the 1908 position may have been in error. The scale of sheet the 1908 party worked on was 1 : 200,000, and 200 meters would only be a very small paper distance.

This sounding is in latitude 58° 31'.2 N and longitude 152° 46' W.

GENERAL FEATURES OF BOTTOM.

The Shelikof Strait sounded area on this sheet is quite irregular. However, there is a channel of deeper water leading from the 100 fathom curve straight direct to the immediate Shuyak Strait western entrance points. This channel has a direction of about 120 degrees true, and its axis passes about 1 ¾ miles distant from Rocky Islet, and heads for about 600 meters north of Lighthouse Point, or about 1/3 the way between Lighthouse Point and the Shuyak shore. The shoalest water on this axis is 30 fathoms but in general it is much deeper. On this axis coming in from the 100 fathom curve the bottom is steep to rising within a half a mile to 50 fathoms, and then almost at once to about 31 fathoms. This depth of not less than 31 fathoms extends for another half mile in width here but in length parallels Shelikof Strait beyond the sounded area. This better than 31 fathom stretch is the dividing ridge between the deep water area of Shelikof Strait and the deep water area leading to and into Shuyak Strait as far as Redfox Bay and Daylight Harbor. This latter deep water area leading into Shuyak Strait proper is parallel with Shuyak Strait and therefore approximately perpendicular with Shelikof Strait. This area in general is well over 50 fathoms in depth and up to more than 100 fathoms, except in one place. In proceeding along this 120 degree axis along the inside deeper water a bank extending from Rocky Islet toward Cape Newland and almost connecting with the shoal water off Cape Newland has a width of ⅛ mile and a depth from 30 to 39 fathoms, and then the deeper water is resumed into Shuyak Strait. This deeper water area has a general width of about one mile.

Extending from Cape Newland past Green Island, and north of the deep water area shoal water carries the 20 fathom curve out into Shelikof Strait off shore 3 miles. In this area there are several rocks which bare at low water especially off Cape Newland and Green Island, and there are also several shoal spots throughout this 20 fathom area.

Between Cape Newland and toward Lighthouse Point the 20 fathom curve extends almost half way across the Strait entrance, or about ⅛ mile. The 10 fathom curve extends about 1/3 way from Cape Newland to Lighthouse Point. In this 10 fathom area there are rocks some of which are awash at highest tide and others bare at low water only.

Continuing toward Lighthouse point beyond the 20 fathom curve the bottom is steep -to reaching a depth of 80 to 90 fathoms. At Lighthouse point the bottom is steep -to with the 20 fathom curve only about 100 meters off shore.

On the south edge of this 20 fathom area which extends off Cape Newland and to the westward the bank is steep -to going from the 20 fathoms to about 40 fathoms and deeper in about 100 meters.

Going toward the Northwest from this 20 fathom area the bottom is more or less gradual out to the 100 fathom curve.

On the south side of this deep water area leading into Shuyak Strait the 20 fathom curve extends for 2¼ miles in general toward Lighthouse point and Cape Newland. In this area about half way to Afognak Island from Rocky Islet several rocks bare at about half tide. These rocks are in a 5 fathom area of about a third of a mile in diameter. In this 20 fathom area the bottom is very irregular.

The 20 fathom area extends ¼ mile to the north of Rocky Islet and about ¾ mile to the northwest.

The bottom northwest of Rocky Islet is about gradual deepening until the 50 fathom curve is reached then the bottom at once falls to about 70 fathoms and then is gradual to the 100 fathom curve.

The whole area of Bluefox Bay and entrances have narrow channels, and are dangerous requiring much caution to navigate safely.

Ships use the easternmost entrance and off this there are several 10 fathom spots and a 2½ fathom pinnacle. Off the Afognak shore there are rocks that bare at part tide. One third the distance east of the middle of Hogg Island there is a 2½ foot spot and about 0.2 mile south a 7 fathom spot. Passing Bear Island in mid channel toward signal " For " there is a 5 foot pinnacle, and the reef off Bear Id is extensive compared with the narrow channel. About 0.1 mile south of signal " Egg " an extension of the shore reef culminates in a 12 foot spot. Shoal water is quite extensive off signal " Cork " and a rock bares at MLLW about 0.1 mile off shore. The reef off the islet with signal " Cat " on it is quite extensive toward the ship channel, that is to the west and south. North of this islet to the islet with signal " Tin " on it the water is shoal and contains some dangers.

The central entrance to Bluefox Bay is practically closed between Hogg Island and the adjacent Teck island due to reefs extending from both shores. The channel is about 70 meters wide. About a half mile northeast of Teck island not far from mid channel there is a 10 foot pinnacle.

The western entrance is also practically closed except to small launches due to several rocks in mid channel that bare at different tide levels.

The channel between Hogg Island and Bear Island is considerably narrowed by three rocks that bare at part tide.

At low water the channel west of Bear Island is practically closed off signal " Bol " except to small boats picking their way gradually here.

No boats were seen or known to use the central or western entrances of Bluefox Bay except the fox farmer's small launch and our own Tender #2.

The depths in Bluefox Bay were generally less than 20 fathoms and mostly less than 10 fathoms.

DANGERS TO NAVIGATION.

1. A shoal with 11 1/6 fathoms is located at latitude 58 32.08 N and longitude 152 43.72 W (see letter Sept 5th par 2 -Dangers to Nav.)

2. A shoal with 5 fathoms is at latitude 58° 31.98 N and longitude 152° 43.05W. (see letter dated Sept 5th, par 3)
3. A shoal with 1 5/6 fathoms is located at latitude 58° 31.4 N and longitude 152° 42.8 W. (see letter dated Sept 5th, par 4)
4. A rock which bares awash at the most extreme tide is at latitude 58° 31.54 N and longitude 152° 42.54 W. (see letter dated August 15th par 7)
5. A shoal with 3 1/2 fathoms is at latitude 58° 31.65 N and longitude 152° 41.7 W. (see letter Sept 5th, par 5)
6. The immediate area east and west of Green Id has several rocks that bare at different stages of the tide. (see letter Sept 5th, par 6)
7. Two rocks 0.2 mile true west of Cape Newland bare at 1/3 tide and at MLLW respectively. See boat sheet.
8. Several rocks about 1/3 mile south of Cape Newland bare at different stages of the tide. (see letter of Aug 7th, par 2)
9. A group of five rocks bare at about half tide are located at about latitude 58° 28.85 N longitude 152° 43.6 W. (see letter June 26th, par 4)
10. Several rocks bare at part tide are off Afognak shore just S W of Lighthouse point. Especially those off signal " SOP " should be guarded against.
11. A pinnacle with 10 feet on it is at latitude 58° 27.97 N longitude 152° 41.95 W. (see letter July 1st to Inspector, par. 2)
12. A pinnacle with 2 5/6 fathoms is located at latitude 58° 27.84 N and longitude 152° 41.4 W. (see letter Sept 5th, par 1)
13. A shoal with 23 feet is at latitude 58° 27.34N and longitude 152° 41.07 W (see letter July 1st to Inspector, par 1)
14. A 7 fathom spot is at latitude 58° 27.19 N and longitude 152° 40.98 W.
15. Three rocks in passage between Hogg Id and Bear Id bare at different stages of the tide as noted on hyd. sheet.
16. The two rock spots in mid channel between Teck Id and the western entrance point of Bluefox Bay bare at different stages of the tide as shown on hyd. sheet.
17. A rock with 5 feet of water is in latitude 58° 26.35 N and longitude 152° 41.03 W. (see letter Aug 15th, par 4-6)
18. A rock with 12 feet of water is in latitude 58° 25.93N and longitude 152° 41.89 W. (see letter Aug 15th, par 1 -3)
19. A rock bare at MLLW is in latutude 58° 25.5 N and longitude 152° 42.05 W.
20. A rock bare at 1/3 tide is in latitude 58° 25.85 N and longitude 152° 41.27 W.(Depths as above are exact. Depths in above letters are preliminary)

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ANCHORAGES.

Masters of the herring saltery schooners who anchor in Bluefox Bay for the herring season report the best anchorage is in about 20 to 25 fathoms of water, with blue clay bottom, about abreast of the waterfall and between the islet on which is the signal " Low ". This is good holding ground they report.

Five large herring schooners anchored this summer for packing for about a month at the head of Bluefox Bay, all outside the 10 fathom curve from about opposite signal " Can " around to the waterfall at the beach at the foot of Devil's Paw Mt.

In southwest blows that are heavy the schooners drag some except at the blue clay anchorage abreast of the beach waterfall. The opinion is that the other bottoms are poor holding ground because of the large amount of volcanic ash which has been deposited in all the waters hereabouts.

At our camp site in Redfox Bay there was a deposit of volcanic ash presumably from the 1912 eruption of Katmai Volcano on the Alaska Peninsula 80 or 90 miles away of 3 to 5 inches with a 2 inch vegetation soil deposit now on top of that. The trees and some of the brush is still laden with the Katmai ash.

It is believed northeast of station " Hogg " in mid channel in 15 to 20 fathoms of water, sticky bottom, should make a good anchorage.

Plenty of fresh water can be easily obtained at the head of Bluefox Bay and it is believed that is the main reason for the herring boats choosing there.for anchorage.

The herring schooner " Esther " drawing perhaps about 10 feet was gotten in the Bluefox Bay lagoon on a spring tide and anchored there for the winter of 1925 -26. The lagoon entrance bares at about half tide, and the deepest water in the lagoon is about 8 or 9 fathoms with sticky bottom. The " Esther" was laid up, and the fox farmer was employed as watchman, during the winter.

In the entrance to Devil's Inlet it is shoal with poor holding ground even for small launches. In northeast blows the wind willy waws around Devil's Paw Mt, over Devil's Inlet and out the entrance.

GENERAL DESCRIPTION OF COAST.

In coming from the northeast along Shelikof Strait past Shuyak Island, Dark Id and Shag Id are about 50 feet high and grass covered. Gull Id is grass covered and about 150 feet high. The shore is rocky with steep banks. All along the western shore of Shuyak Id the beach is mostly rocky with usually rocky perpendicular banks about 20 feet high. At the top of the rock banks the land is usually grass covered back about a quarter of a mile with a few scattered knarled and croutching spruce trees. These trees show plain signs of a hard tussle with the winter winds, and in their endeavor to survive resemble brush in stature rather than trees. Even their branches droop to the ground and seem to clutch it to best the wind storms. In this grass area their are usually small shallow ponds.

The western coast back of the grass area is rolling low densely wooded hills, and nothing is conspicuous until a lone round hill about 420 feet high is sighted. This lone hill is at the head of Big Bay, wooded up to near the top, then bare and flat. It is inshore about 3½ miles E x S from Eagle Cape. The hill is shown on chart 8555 by a lone contour.

Eagle Cape located about 3 miles further south than shown on the chart is conspicuous by resembling somewhat the head of an eagle on sentinel duty. The part resembling the eagle's head is the small projection where " Prom " station is built. It is about 50 feet high, 100 feet square and juts out from a lowering neck of land attached to the main point of land. It is all grass covered, conspicuous from the southwest, and is seen from the head of Bluefox Bay. It is a good landmark.

Aside from Eagle Cape there is nothing conspicuous about the entrance to Big Bay. Eagle Cape is the south entrance point.

Neither Green Id. nor Cape Newland are conspicuous blending their grass covered tops with the general shoreline. Green Id stands out from the northwest direction and is off the entrance to Neketa Bay.

Lighthouse Point, the islands at the entrance to Bluefox Bay, and the western point of Bluefox Bay are not conspicuous blending their rocky and grass topped shore line with the whole shoreline. Their rocky banks are about 30 feet high and about perpendicular.

At the entrance to Shuyak Strait mariners steer to raise Rocky Islet for a turning point to enter and depart from the main Shuyak Strait course from Shelikof Strait. This islet stands out conspicuously, black, about 12 feet high, 200 feet long, and free of all vegetation.

Mariners have often urged me to aid in obtaining a light on this rock as well as on Lighthouse Point.

In coming from the other direction along Shelikof Strait past Black Cape from the southwest a clump of bold islets and bold rocks is reached in about 2 miles. Two of these islets are grass topped.

Alligator Island is reached in another 2½ miles. This is about 64 feet high, grassy, with steep rocky banks about 30 feet high. The island resembles an alligator very much from the north and south direction. The head is at the S W point of the island.

Rocky Islet is distant 1 mile.

Grassy Island is grass covered and about 30 feet high.

Black Cape slopes gradually from the bare topped peak marked 1155 feet on chart 8555 . The point of the cape is fringed with grass and then is densely wooded up the slopes to within about 400 feet of the top.

Black Cape, the clump of islets 2 miles beyond, Alligator Id. and Rocky Islet are all more or less in a straight line paralleling the direction of Shelikof Strait.

The shore line from Devil's Inlet entrance to Bluefox Bay is all fringed with a narrow strip of grass, about 200 meters wide, then low scattered spruce to densely wooded forest up the mountain sides to about 700 feet elevation. The low scattered spruce is of the same nature as described above along the Shuyak shore. The Afognak shore is rocky and about 15 feet sheer.

About 1¾ miles S E of the head of Bluefox Bay is a conspicuous red cone shaped mountain rising 2514 feet. It is rocky and bare for several hundred feet from the top. It is located by triangulation. It is locally known as Red Peak. It is an excellent landmark making Shuyak Strait from Shelikof Strait. It is usually clear of clouds in the summer.

The peak marked Devil's Paw Mt.,2056 feet high, is conical for several hundred feet from the top, bare, with rock slides down the top to about the tree line. It is located by triangulation, and makes an excellent landmark from Shelikof Strait.

On the same range just south of Devil's Paw Mt one mile are three other flat topped peaks, bare, and about the same elevation as Devil's Paw. A saddle is the dividing mark which is about a thousand feet lower. These peaks are usually clear except in storm in the summer.

Snow left the peaks about the end of June and had not returned the middle of September when the party disbanded.

SAILING DIRECTIONS.

Ships entering Shuyak Strait from Shelikof Strait should stay outside the 20 fathom curve , raise Rocky Islet, and then pass north of the islet 1¾ miles distant with Rocky Islet bearing 210 degrees true and steering 120 degrees true to as far as abeam of Lighthouse Point,3 ¾ miles,from which the course changes into Shuyak Strait proper. This distance off Lighthouse point is about 1/3 of a mile.

To enter Bluefox Bay run on the course 120 degrees true past Rocky Islet

about 2¼ miles until the east tangent of Green Island is on the port beam about 1⅞ miles distant, then head 171 degrees true 2¼ miles for the mid Channel at the eastern entrance to Bluefox Bay just east of Hogg Island, and abeam of the southern most rocky grass topped islet on the port beam, distant 150 meters. This islet is about 30 feet high by 200 feet long, and has rocks baring at LW extending 300 feet to the SW. This course passes a 25/6 fathom pinnacle 0.1 mile on starboard hand about 0.2 mile N of Hogg Island.

Then steer midway between rocks baring at L W and 23 foot spot which latter is in mid channel, steering 149 degrees true 0.2 mile. Go slow and use all caution here due to narrow channel.

Then mid channel ¼ mile 195 degrees true with N E point of Bear Id bearing 278 degrees true, distant 0.2 mile. This course passes over a 7 fathom spot which was examined three times for least water.

Then 0.3 mile, mid channel, course 161 degrees true until north tangent of wooded islet on port hand distant 1/6 mile bears 105 degrees true.

Then 1/3 mile, mid channel, course 210 degrees true between 5 foot rock on port hand, distant 100 meters, and reef extending from Bear Id on starboard hand. Care should be taken against grounding on this reef.

Then 1/6 mile, mid channel, course 244 degrees true until the north tangent of wooded island south of Bear Id. on starboard hand bears 299 degrees true distant ¼ mile.

Then 0.3 mile, mid channel, course 198 degrees true until south tangent of wooded island south of Bear Island on starboard hand bears 309 degrees true. On this bearing a rock with 12 feet of water on it is distant 140 meters on starboard.

Then 0.2 mile, mid channel, course 230 degrees true to midway between waterfall and wooded islet on port hand.

Then ¼ mile, course 139 degrees true, heading toward small grass topped rocky islet. A rock bare at M L L W is 0.1 mile off ⊙ Cork.

Then ⅛ mile, course 171 degrees true, which is the head of the Bay.

WEATHER.

Southwest blows of 5 or 6 force were intermittant during the summer and would last for about 10 days blowing up Shelikof Strait. These blows in the summer came about every three weeks. As a rule pretty fair working weather was found off Perenosa Bay during these blows when Shelikof Strait would be impossible. All summer during southwest weather the atmosphere hazed considerably making triangulation operations cease. Grass fires on the Alaska Peninsula were reported to be the cause of the haze, but it is believed S W weather brings in a certain amount of hazy atmosphere without the vast grass fires.

Toward the end of August and in September the southwesters usually swung around after blowing for several days through the north and into northeast. Northeast weather usually brought rainy conditions and overcast.

All the storms during the season increased in strength toward Fall and came oftener.

In strong southwest weather the seas were high and cross off Lighthouse Point and off Cape Newland, making it very dangerous for small boats rounding the points.

Masters of the Alaska Steamship Co and the Pacific Steamship Co report that the vicinity of Shuyak Strait is subject to fogs considerably less than the surrounding country. This past season only a few days of fog were experi-

enced and at times when Shuyak Strait entrance would be clear or practically so fog would be banked up across Shelikof Strait to the westward and banked up to the eastward of Cape Current.

MAGNETICS.

See report on Magnetics of vicinity of Shuyak Strait.
No unusual magnetic disturbance was found, and values obtained for the declination agreed very well with the chart declination as given on chart 8555.

WIRE DRAG.

Due to the pinnacle nature of this whole vicinity it is desirable to wire drag especially Bluefox Bay at some convenient time in the future.

DOCK AT HOGG ISLAND.

Information received states that lumber has been left at Hogg Id for a dock and herring saltery to be built from shore where signal " Farm " is located. While this was contemplated before the party disbanded the lumber had not then arrived.

TIDAL REFERENCE FOR ROCKS.

Rocks baring at part tide, such as 1/3 tide means 1/3 of range from low and not from high water.

BAY N. OF CAPE NEWLAND.

In the bay just north of Cape Newland which almost runs through to Shuyak harbor except for a flat narrow neck of land there are many obstructions, and it is of little value being rarely used. The entrance runs just south of signal " Dip " where obstructions almost close the bay. There is a depth here of 1 fathom at MLLW.

AFOGNAK RESERVATION.

A proclamation by the President of the United States, promulgated December 24th, 1892, created the Afognak Forest and Fish Culture Reserve, which is now a part of the Chugach National Forest. The land and waters reserved by this proclamation are Afognak Id, Alaska, and its adjacent bays and rocks and territorial waters, including among others Sea Lion Rocks, and Sea Otter Island.
All persons are forbidden to enter upon, or to occupy, the tract or tracts of land or waters reserved by this proclamation, or to fish in, or use any of the waters herein described or mentioned.
See page 8 of Circular #251 - 12th Edition Laws and Regulations for Protection of Fisheries of Alaska, dated December 5th, 1925.

TIDE GAUGE.

For this hydrographic sheet an automatic tide gauge was established in Redfox Bay, Shuyak Strait. For sounding in Bluefox Bay a plain staff was established there on the south side of Hogg Island.

SOUNDINGS IN ESTHER LAGOON.

The soundings in Esther lagoon were taken with a pulling boat. These soundings were reduced to M L L W although the water level in the lagoon never goes below 8 feet above M L L W.

The entrance goes dry at this level and leaves the water trapped in the lagoon. The least depth of each sounding on the smooth sheet is 8 feet more than is plotted here. The soundings were reduced to MLLW rather than establish another datum for so small an area.

LAUNCH USED BY PARTY.

Wire Drag Tender # 2 was used by this party as its main launch.

A tiller was rigged on a stancheon just aft of the cock pit and from there standing on the after decking the helmsman steered with a clear view of the horizon over the launch canopy.

The sounding machine was placed on the port side abreast of the engine flywheel from which power was obtained by a belt. The sounding wire led up through a guide slot in a board secured across the sounding machine frame to a regular sounding sheave overhead under the canopy frame thence overboard on the port side to the regular registering sheave where one complete turn of wire over the sheave prevented slipping. The zero of the registering device was constantly checked, and reset whenever required. All soundings were up and down casts.

Handlead sounding was taken on the starboard side where a sounding chair was secured at the forward end of the canopy. Practically all handlead sounding was with the copper centered leadline. A small amount was taken with the ordinary type of leadline -samson spotted sachcord.

Plotting was done on a table secured to the under side of the launch canopy frame at the after end of the canopy on the port side. From here the sheave could be readily watched for accuracy.

Angles were taken from the cockpit aft of the engine and canopy.

Tender # 2 is 30 feet long and has a 28 horsepower high speed engine.

Soundings were taken about 6 feet forward of the angle positions.

AIDS TO NAVIGATION.

See paragraph # 2 pp. 6.

Should the herring schooners return to Bluefox Bay next summer it is believed Bluefox Bay should be buoyed to protect the freighters which call for herring freight regularly.

Charles Shaw

Charles Shaw.
Lieut, Coast and Geodetic Survey.

Seattle, Wn.,
December 4th, 1926.

Hydro. Sheet - H-2
1926

TABLE OF STATISTICS

Date 1926	Letter	Volume	Positions	Soundings	Miles (Statute)	Vessels
June 18	A	1	46	113	16.4	W.D.Tender
19	B	1	27	52	7.5	No. 2.
22	C	1	80	209	17.5	"
23	D	1	68	154	20.5	"
28	E	1	34	113	6.5	"
30	F	2	28	104	5.0	"
July 1	G	2	50	153	7.0	"
2	H	2	95	302	13.7	"
6	J	3	92	282	11.0	"
7	K	3	97	282	12.0	"
8	L	4	108	313	11.0	"
9	M	4	124	532	16.0	"
26	N	5	68	205	18.0	"
27	P	5	67	119	22.5	"
28	Q	5	53	95	16.0	"
Aug. 6	R	5	67	140	24.5	"
10	S	5	65	218	23.5	"
11	T	6	67	177	24.0	"
12	U	6	71	223	23.0	"
13	V	6	114	354	12.0	"
16	W	7	78	254	23.0	"
17	X	7	77	217	10.0	"
28	Y	7	43	104	11.5	"
30	Z	7	21	86	4.0	"
31	A'	8	93	223	24.0	"
Sept. 1	B'	8	60	187	14.5	"
7	C'	8	50	133	12.0	"
9	D'	8	45	130	9.0	"
July 8	a	1	6	20	0.5	Cutter
Totals	29	9	1894	5494	416.1	

Soundings in FATHOMS

Plane of Reference - Mean Lower Low Water

Portable automatic tide gauge at Red Fox Bay for Shuyak Straits and offshore hydrography.

Plain tide staff at Bluefox Bay for hydrography in Bluefox Bay.

Red Fox BayGauge (automatic)
Lat. 58° 27'N Long. 152° 36' W
Mean Lower Low Water - 4.13 Feet
Lowest Reading on staff 0.9 "
Highest reading on staff, 21.7 "

Bluefox Bay (plain Staff)
Lat. 58° 27'N Long. 152° 41'W
Mean Lower Low Water - 5.5C

Hyd 4576

The ground on this sheet is irregular with numerous rocks and shoals. Some very close developement was done on many of these but there still remain some shoal soundings on which further examination would seem desirable, especially in the area which is marked "not completed".

The records are satisfactory.

The sheet has been well protracted and the soundings carefully spaced, but the fractions were not correctly expressed.

All questionable points which came up in the verification, were discussed with Mr. Crosby who made the topographic survey and did the protracting and plotting on this sheet.

R. L. Johnston

February 8, 1927.

(11)

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 4576

Locality: S. W. ALASKA.

Chief of Party: Charles Shaw
Plane of reference is M L L W
4.8 ft. on tide staff at Red Fox Bay
6.1 ft. do Blue Fox Bay

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 Rude

Chief, Division of Tides and Currents.

IN REPLY ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO. 11-VEC

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

May 25, 1927.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4576

Shuyak Strait, Shelikof Strait, Alaska

Surveyed in 1926

Instructions dated March 27, 1926 (Shaw)

Chief of Party, Charles Shaw.

Surveyed by Charles Shaw and H. W. Tyler.

Protracted and soundings plotted by K. G. Crosby.

Verified and inked by R. L. Johnston.

1. The records conform to the requirements of the General Instructions and the plan and character of development satisfy the General Instructions.

2. The plan and extent of development satisfy the Specific Instructions.

3. The sounding line crossings are adequate, considering the uneven character of the bottom.

4. The information is sufficient for drawing the usual depth curves.

5. The usual field plotting was done by the field party. It was well done, except for the failure to use, in all cases, the fractions called for in the General Instructions.

6. An excessive amount of time was required to verify and ink the hydrography of Bluefox Bay on account of the large amount of detailed information contained in this area. Time would have been saved and the plotted sheet would have been more satisfactory if this bay had been on 1:10,000 scale.

7. The junction with the adjoining sheet is satisfactory.

8. Additional sounding is needed inside the 20 fathom curve extending three-fourths mile northwest of Teck Island (see descriptive report). There are a number of shoal spots which are insufficiently developed and on which less water probably exists. The entire area within the 20 fathom curve should be dragged as recommended.by the chief of the party.

9. There are several differences of 1 or 2 feet between the depths on rocks given in the descriptive report and these shownon the sheet. The differences are due to office changes in the tide reducers and the depths on the sheet should be used.

10. The character and scope of the surveying and field drafting are excellent.

11. Reviewed by E. P. Ellis, May, 1927.

Approved:

_____

Chief, Section of Field Records (Charts)

_____

Chief, Section of Field Work (H. & T.)

Form 537
11—5812

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4576

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. H - 2

REGISTER NO. 4576

State ALASKA

General locality Shelikof Straits

Locality Bluefox Bay and Offshore West Entrance to Shuyak Straits.

Scale 1 : 20 000 Date of survey June 18th to Sept. 9th 1926

Vessel Shuyak Straits Shore Party - Wire Drag Tender #2

Chief of Party Charles Shaw

Surveyed by Charles Shaw - Henry W Tyler

Protracted by Kenneth G. Crosby

Soundings penciled by Kenneth G. Crosby

Soundings in fathoms ~~feet~~

Plane of reference MEAN LOWER LOW WATER

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated March 27 and April 3 1926

Remarks: Forwarded - 9 vol. soundings,
Descriptive Report,
Statistics Sheet.

*Vol. 9 contains some work on H-1, not yet received

C.A.B. Dec 19, 1926

NAUTICAL CHARTS BRANCH

SURVEY NO. H-4576

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
13 Sept 46	573	Nichols	~~Before~~ After Verification and Review
			Added depth curves
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

Applied to Drg. of Chart 8573 in conjunction with H5190 for drawing of curves in Neketa Bay. July 6, 1935 H.B.

16608 10/25/81 Fully applied hydro to new chart