

4312

FORM 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
<div>U. S. SURVEY L. & A. Acc. No.</div>	
State: Alaska	
DESCRIPTIVE REPORT	
RECONNAISSANCE Topographic Hydrographic	Sheet No. 4312
LOCALITY	
Kenai Peninsula-S. End	
Nuka Island Pass	
1927	
CHIEF OF PARTY	
R.R. Lukens	

GOVERNMENT PRINTING OFFICE

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

State: S. W. Alaska

11-5013

DESCRIPTIVE REPORT.

Res

4352

Topographic Sheet No. "G" **4312**

LOCALITY:

S. W. Alaska

Nuka Island Pass

1927

CHIEF OF PARTY:

R. R. Lukens.

This sheet was executed by the party on the launch Wilcoat, in connection with the survey of Nuka Bay. The survey of Nuka Island Pass was not called for in the instructions, but was considered of sufficient importance, so that it was attempted to extend the Nuka Bay Survey thru this pass. The survey of Nuka Bay was made under the instructions issued to the Commanding Officer of the Str. SURVEYOR, dated February 3rd, 1927.

Survey Methods:- It was found impracticable to continue the scheme of triangulation, which ended with the quad. Pass, Tree, Pine and Land, through the Pass. If this scheme had been continued it would have introduced several poor figures with a R_1 already high. A reconnaissance was therefore made through the Pass to extend a scheme of triangulation from the Island - Fire base. A separate report of this reconnaissance has been made in the seasons Triangulation Report.

Due to the importance of this pass when used in conjunction with Mac Arthur Pass, as a shorter and more protected route along the coast, it was planned to make as much of a topographic and hydrographic survey of this area as time would permit. Signals were built throughout the pass during the rainy weather and sketches made at this time of Islands, points and off-lying rocks. However, there was so much rainy weather during the season, that it required all the good days to complete the survey of Nuka Bay and only one day could be devoted to this sheet. Unfortunately, there was no time to do any hydrography in this pass.

The survey was started at Δ Pine and Tree, which marked the end of the Nuka Bay survey, and plane table triangulation was carried to Sand Point on the west shore of the pass and to the point one mile south of Turn Point on the eastern shore. Berger Island was cut in and the range of Bold Point on Point Gore determined. The shoreline covered by plane table triangulation was sketched in between ^{positions} and is fairly accurate, but the remainder of the shoreline was transferred from the Geological Topographic Reconnaissance Map of Kensi Peninsula (Bulletin 587, Plate 2), with corrections and additions as noted in the field.

Much valuable information was contributed by a fox farmer whose home is located at Home Cove on Nuka Island. This fox farmer has fished all through the pass and the reported depths were supplied by him. As far as possible the information given by him was checked from other sources and in every case proved reliable. As many fishermen and mariners as possible were consulted for Coast Pilot information of this pass.

In case this pass is not surveyed soon, it is recommended that the information shown on this sheet be charted. For approximate contours it is recommended that the contours shown on the Geological map, mentioned above, be used. These contours have been found approximately correct.

General Description:- Nuka Island Pass, when used with Mac Arthur Pass, affords a protected and shorter route for vessels proceeding along the coast. This pass is not much used at present, mariners without local knowledge being afraid to venture in uncharted waters, which are not even described in the Coast Pilot. This pass would undoubtedly be extensively used, especially in rough weather, if it were charted.

Channel Island is a low wooded island, the western end of which is separated into two small islets at high water. The main channel passes to southward of this island, with a reported depth of about 25 fathoms in mid-channel. There are sunken rocks northward of the island and this channel should not be used.

Nuka Island is leased to a fox farmer and there are "No Trespassing" signs placed on all the prominent points and islets along this shore of the pass. Turn Point, low and wooded, has one of these signs placed in a prominent position at the end of the point.

Yalik Glacier, sometimes called Nuka Glacier, has a high, bare terminal moraine at its foot. There is a high, bare hill near the western side of the face of the glacier. Extending from the foot of the glacier to Nuka Island Pass is a wide, flat area of bare sand and gravel with a prominent clump of trees near its center. These flats could be developed into a good aeroplane landing and even undeveloped, a safe place to land could probably be found. The ten fathom curve approaches close to the shore here, except off the small blight at the western end of the flats where the water is shoal.

Sand Point is a prominent low, rounding point with a wide sand beach. Soundings taken from the Wildcat with a hand lead found no bottom at eight fathoms close in to the point. The fox farmer reported that he set halibut gear at a depth of 60 fathoms close off the point.

Berger Island is a prominent wooded islet which appears, from northward or southward, to lie in the center of the channel. Two long reefs, probably showing at all stages of the tide, lie about $\frac{3}{4}$ mile to northward and $\frac{1}{2}$ mile to southward of this island. A rock, awash at extreme low tide, is reported to lie about $\frac{7}{8}$ miles 220° (true) from Berger Island. The range of Bold Point on Point Gore is reported to pass well to westward of this rock.

Bold Point is steep and rocky, with many large rocks lying off the eastern and southeastern shore of the point. The shore between Bold Point and Tamsina Bay is reported to be foul and should be given a good berth. The mainland shore between Tamsina Bay and the flats off Yalik Glacier, is rocky and steep, except at Sand Point, and there are no known dangers along this coast.

Tamsina Bay has several wooded islets at its entrance and two small islets near its head. Good protected anchorage is reported at the head of the bay in 7 to 9 fathoms, mud bottom, but there are several rocks in the approach which makes navigation dangerous except with good local knowledge. The entrance to the bay is reported

to be equally good close to southward of the large island in the center of the entrance or to the northward of the three islets lying northward of this island.

Very little information could be obtained about the coves and bays on the eastern side of the pass. There are many dangerous rocks in these bays and mariners should avoid this area except with good local knowledge.

New Place Names:- Channel Island, Berger Island, Turn Point, Sand Point and Bold Point are names suggested by the field party in the absence of local names. Rocky Cove, Hidden Cove, Home Cove, Mike Bay, Duck Bay, Southwest Bay, Tamsina Bay, Mike Island and Cape Horn are names in use locally.

See also, Coast Pilot Notes forwarded this season for this area.

Respectfully submitted,

*affirming
A. B. Linker*

Wm. D. Patterson
Wm. D. Patterson
H & G Eng. C & G Survey

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET
RECONNAISSANCE

L. & G. SURVEY
L. & A
JAN 24 1928
Acc. No.

REG. NO. 4312

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. "G"

REGISTER NO. 4312

State S. W. Alaska

General locality ~~Nuka Island Pass~~ Kenai Peninsula-S. End

Locality Nuka Island Pass

Scale 1:20,000 Date of survey September, 1927

Vessel Str. SURVEYOR

Chief of Party R. R. Lukens

Surveyed by W. D. Patterson

Inked by W. D. Patterson

Heights in feet above - to ground to tops of trees

Contour, Approximate contour, Form line interval - feet

Instructions dated February 3rd, 1927

Remarks: Reconnaissance survey of Nuka Island Pass

4312a

ORIGINAL

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R.S. Patton, Director

State: S.W. Alaska

DESCRIPTIVE REPORT
Topographic } Sheet No. B 4312a
~~Hydrographic~~

LOCALITY

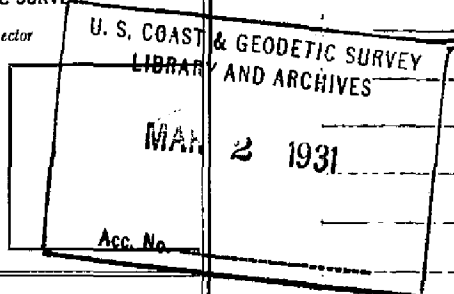
KENAI PENINSULA

NUKA PASSAGE

19 30

CHIEF OF PARTY

F. B. T. Siems.



DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET "B".

AUTHORITY:

This survey was made in accordance with the Director's instructions dated March 21, 1930.

LOCALITY:

This sheet covers NUKA PASSAGE, a protected westerly approach to Nuka Bay formed by Nuka Island on the east and the mainland of Kenai Peninsula on the west.

GENERAL DESCRIPTION OF COAST:

The land area is, in general, thickly wooded to an elevation of 1,000 - 1,200 feet except where the slopes are too steep to permit of trees obtaining a foothold, or in areas of recent land slides.

The east side of the Passage, Nuka Island, presents a ragged appearance due to numerous offlying rocks and islets. There are numerous indentations and embayments, none of any ^{particular} great importance. The whole of Nuka Island is leased, and is devoted to fox farming. "No trespassing" signs are numerous and prominent.

The west side of the Passage is for the most part bold as far south as Tonsina Bay.

The exceptions are Sand Point which lies about midway in the Passage, and the terminal morain of Petroff Glacier about two miles south of Sand Point.

Sand Point is composed of sand as its name implies. It is roughly semi-circular, 1/2 mile in diameter and forms a break in an otherwise bold regular shore line. The entire point is roughly 40 feet in elevation with its westerly half thickly wooded.

Petroff Glacier lies due west of Sand Point on the opposite side of the ridge and is prominent from southward.

About three miles south of Sand Point lies Brown Mountain, a peak with a distinctive brown color and a prominent land mark from the southward. The peak itself has several nobs, the highest of which is 2375 feet. When viewed from the south or southeastward, the north shoulder, elevation 1760 feet, together with the main peak, forms a distinctive camels back.

The coast south of Brown Mountain is ragged at the entrance to Tonsina Bay. From there south to the extremity of the sheet there are numerous rocks and rocks awash. These extend less than 1/2 mile offshore, however.

At the extreme north end of the pass lies Yalik Glacier, which shows up prominently from the south. The extensive morain, composed chiefly of large pebbles and coarse gravel, contains two fairly large island-like wooded knolls. These extend in a north and south direction, and are about a mile apart. The morain has a steep gradient and its several glacier streams are swift, and are constantly shifting their courses.

OFFLYING DANGERS:

There are numerous rocks and reefs baring at various stages of the tide throughout the area covered. These are as shown and noted on the sheet.

NAMES:

The names appearing on the sheet in pencil are for the most part local names.

NUKA POINT is a suggested name for the southern extremity of Nuka Island.

USELESS COVE is a suggested name for the first cove north of Nuka Point on the west side of Nuka Island. It is so named because of numerous kelp patches and shoal soundings near its center, and also because of its exposure to southerly weather. It is marked by two bare islets 1/2 mile off its entrance. X

SOUTHWEST COVE is the local name for the second embayment north of Nuka Point. Its head contains numerous rocks awash, and reefs extend in a westerly direction from either of the entrance points. X

A rock awash at low water, lies west-southwest of the entrance at a distance of about one mile.

There is a kelp patch near the center of the entrance to the cove. ^{see hydrographic sheet} Off the northerly point marking the cove lie two grass covered bluff islets, elevation about 45 feet. One of these contains a lone bushy spruce tree, height about 45 feet, flanked by two dead trees which appear as white poles.

BERGER ISLAND is the local name for the westernmost low wooded island east-northeast of Brown Mountain, distant three miles.

DUCK COVE, a local name, lies due east of Berger Island. It is marked by several bare and wooded islets, and contains numerous rocks and reefs. It derives its name from the fact that Eider Ducks nest on its entrance islets. ^{named Berger Cove (D.G.N.)}

MIKES COVE (alternative - Lake Cove) is the local name for the cove just north of Duck Cove. It is marked by a large wooded islet at its entrance, elevation 75 feet. About midway between this islet and the southerly shore of the cove lies a rock baring at minus tides.

The alternative name is derived from the lake lying at the head of the cove.

HORN POINT is the local name for the northerly point of Mikes Cove.

HIDDEN COVE, a local name, lies just north of Horn Point. The building and dwellings of the fox farm lie at the head of this cove which is narrow and much broken up by wooded and bare islets.

HOME COVE, a local name, lies north of Hidden Cove. It is small and near its head lies a low bare islet, but otherwise it is free from visible dangers.

NOTE: On the reconnaissance sheet, Reg. No. 4312, the names, Hidden Cove and Home Cove are reversed. This is incorrect as found by inquiry of local residents.

ROCKY COVE, a local name, lies north of Home Cove, and is the northernmost well defined cove on the west side of Nuka Island. As its name implies, it contains numerous rocks and islets.

TURN POINT, a local name, is the northwest extremity of Nuka Island, and marks a right angled turn in the passage. *Hardover Pt (DGN)*

CHANNEL ISLANDS, a local name, lie in mid-channel just north of Turn Point. The ship channel is south of these islands. Midway *Division I (DGN)* in the channel north of the islands lies a rock baring at minus tides.

SAND POINT is a local name of a point on the west side of Nuka Passage previously described. *Petrof Pt (DGN)*

TONSINA BAY is the local name for the embayment south of Brown Mountain. Its entrance is ragged, being marked by a large wooded island, elevation 70 feet, from which reefs and rocky islets extend in all directions. The entrance to the bay is to the north of this island, known locally as LONG ISLAND. Spirit Cove is a suggested name for the indentation south of Long Island, at the head of which is a narrow channel leading to Tonsina Bay. The remains of a gas boat, "Spirit" which was lost in 1929 with a reputed loss of two lives, was found here in 1930 by the survey party, hence the name. ✓

BOLD POINT is the local name for the first well defined point south of Brown Mountain, distant 4-1/2 miles.

The point itself is a bold, wooded island, elevation 110 feet, The island is about 300 yards long and 75 yards wide, and extends in an east and west direction. It is separated from the mainland by a strip of water about 10 yards wide. *Front Pt (DGN)*

METHOD OF SURVEY:


A plane table was used exclusively with the exception of the sandy stretch of waste from triangulation station "Sand", to the river just north of Triangulation station "Hard". This stretch of approximately three miles was located by walking along the shore and taking sextant fixes on the opposite shore at intervals of approximately 100 meters. The low water line was paced off. This area was subsequently checked with plane table by tangent cuts.

The control for Tonsina Bay was carried in by plane table triangulation supplemented by a traverse near its head.

No other traverses were necessary, the hydrographic signals being cut in from triangulation stations and used for plane table positions. The three point fix was also frequently made use of.

All hydrographic signals were checked by three or more cuts, or two cuts and a rod reading.

Respectfully submitted,



George A. Nelson
Jr. H. & G. Engr. C. & G.S.

Approved and Forwarded-



F.B.T. Siems
Commanding Officer,
Str. DISCOVERER.

STATISTICS:

Statute miles of shoreline - - - - - 109

Area - sq. statute miles - - - - - 112

Statute miles of river traversed - - - - - 3

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Field No. _____
Register No. B 4312a

State ~~Southwest~~ Alaska

General locality Kenai Peninsula

Locality Nika Passage

Chief of party . . F. B. T. Siems

Surveyed by . . . G. A. Nelson

Date of survey . . June - July 5, 1930.

Scale 1:20,000 . (1:10,000 insert)

Heights in feet above Mean H. W.

Contour interval 100 . feet.

Inked by G. A. N. . . Lettered by G. A. N.

Records accompanying sheet (check those forwarded): Photographs,

☒ Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet

Remarks:

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