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Form 501	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
C. & G. SURVEY L. & A. DEC 19 1929 Acc. No.	
State: ALASKA.	
11-5613	
DESCRIPTIVE REPORT.	
TOPOGRAPHIC.	Sheet No. H. 4466a
LOCALITY:	
APPROACHES AND WEST HALF	
of	
SPIRIDON BAY,	
KODIAK ISLAND.	
JULY.	
1929.	
CHIEF OF PARTY:	
R. R. LUKENS.	

DESCRIPTIVE REPORT.

TOPOGRAPHIC SHEET "H".

Str. SURVEYOR.

R.R. Lukens,
Chief of Party.

1929.

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LIMITS. This sheet covers the western half of Spiridon Bay and the approaches to Spiridon Bay, from a point four miles north of the bay (triangulation station Bank), and from a point one mile south of the bay (triangulation station Pat).

GENERAL DESCRIPTION. Spiridon Bay is surrounded by high ridges running parallel to the shoreline. Several valleys break thru these ridges. Brush and grass cover the lower slopes, grass the hillsides from about 500 ft elevation to 1500 feet elevation, and the tops are ^{moss} covered or barren. The valleys are generally filled with alder brush and salmon berry brambles. Fire weed and lupen make banks of color during their flowering season.

DETAILED DESCRIPTION. A broad sand beach extends from Bank to Gee. Eroded earth banks about 40 to 80 feet high are back of this beach. A gently rolling, grass covered area extends inland for about half a mile to the foot of the hills. At Gee is a waterfall.

The shoreline from signal oGee to oQue consists of rocky bluffs quite broken up and with numerous reefs near the shore. Numerous gill nets lay off the point during the salmon fishing season. Back of the bluffs are grassy mounds. Triangulation station Mound is on the highest of these mounds.

~~East~~ West of signal oQue is a bight containing a sandy beach. Back of the beach is a grassy, partly marshy area and a pond. This pond is fresh. It is the overflow from a stream which empties into the bight. The source of this stream lays in the large valley northwest of the bight.

The shoreline from signals Are to Mop consists of low bluffs. There is a sand beach west of signal Dub. Mud flats lay west of signal Bud.

CHIEF POINT. The area north of Bird Rocks, consisting of the large island, peninsula, and immediate vicinity is called Chief Point. This large island at Chief Point is covered with grassy mounds. Most of the shoreline consists of rocky bluffs about 30 feet high. On the east end is a low area upon which are several houses and out buildings. Natives live here thruout the year.

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On the northeast shore of this island is a landlocked bight where small boats can find a very secure anchorage, but its entrance is shoal and constricted at low tides. North of Chief Point are two islets, about 20 feet high, grass covered, and having a rocky, bluff, shoreline.

CHIEF COVE, the bay between the large island and the mainland affords secure protection to fishing boats and cannery tenders. These boats anchor here frequently. At the western entrance to Chief Cove there is a reef bearing at low tide. It lays mid way between the large island and the two islets. The south entrance to Chief Cove is constricted by sand spits on both sides. This entrance was not used by the survey party at low tide. The peninsula at Chief Point consists of grassy knolls with a shoreline of low rocky bluffs.

BIRD ROCKS. The group of rocks south of Chief Point are called Bird Rocks. Bird Rock is the largest and highest, being about 110 feet high. Its sides are steep and covered with thick grass. It is a rookery for sea gulls. The three islets east of Bird Rock are about 15 feet high, covered with grass and birds. The rock on which signal At is located is rocky and barren.

NEST ISLAND is grass covered. Its shoreline consists of rocky bluffs. At low tide the island is connected to a lower and smaller islet by a sand and gravel spit.

The shoreline from signals Mop to Cliff consists of low rocky bluffs, bordered by narrow sandy beaches in places, and broken in several places by flat sandy bights. From signals Mop to Pole, grassy slopes rise directly behind the bluffs to the ridge above. Back of signal Tol is a flat grassy peninsula. Back of the peninsula is a fresh water lagoon. This lagoon is surrounded by low bluffs. The lagoon is fed by the overflow from a stream.

HOOK POINT. Hook Point is a grassy peninsula with rocky bluffs for shoreline. It is connected to the shoreline by a low narrow sandspit, partly covered with grass. North of Hook Point is a protected bight, a secure anchorage in a storm. This bight is at the termination of a large broad valley.

From signal Dot to triangulation station Cliff low rocky bluffs are bordered by gravel and sand beaches. Rocks make off the points. The grassy slopes of the ridge paralleling the shore terminate close to the bluffline.

From triangulation station Pat to signal Who the shoreline consists of low bluffs alternating with sandy stretches of beach. A grassy rolling country extends a short distance inshore from the bluffs to the foot of the ridge. The low rocky bluffs continue from signals Who to Nip, broken in several places by flat sandy and boulder stretches. The largest of these boulder stretches lays $\frac{1}{4}$ mile east of Glover Rock. It forms a broad delta at the mouth of a small stream. A small grassy flat lays west of the mouth of the stream. A deep ravine and valley runs southeasterly from this delta. A camp party was situated on the flat here part of the season. It seems the best camp site in this vicinity, for there is a good water supply and there is

some protection to small boats anchored behind Clover Rock. There are several drawbacks, however, the site is exposed to westerly gales. Skiffs must be anchored out or taken up the stream at high tide. Black flies and mosquitoes are plentiful. The next largest flat stretch is a broad sandy beach extending 500 meters southwestward from signal Ril.

LANDMARKS. There are several landmarks for ships approaching and entering Spiridon Bay. The mound upon which triangulation station Mound is located is conspicuous to ships approaching from the north. It is grassy and shaped like an inverted bowl.

Bird Rock is a good landmark and object upon which to take bearings when entering Spiridon Bay. It is steep sided half way up, grass covered, and tapers to a definite summit. A Bird Rock is located on this summit.

Clover Rock and Thistle Rock are excellent landmarks on the south shore of Spiridon Bay. Clover Rock is irregular shaped with vertical sides, and is grass covered. A gravel spit connects it to the mainland at extreme low tides. On the northwest face of the rock is a large smooth black surface. Thistle Rock is low, about 10 feet high. It is rugged, black, and barren.

ROCKS AND DANGERS. The most dangerous area for ships is the group of rocks west of Chief Point. These rocks are submerged at most stages of the tide. Chief Point should be given a berth of at least $\frac{3}{4}$ mile.

There are many rocks and reefs close to shore and in the bays from Bank to Chief Cove which are dangerous to small boats. These are indicated on the topographic sheet.

The Bird Rock group are conspicuous and are clear of dangers so far as known.

The reef halfway between signals Mop and Nest Island which bares $1\frac{1}{2}$ feet at low water was located by two topographic cuts. This reef was also located by the hydrographic party.

Clover Rock and Thistle Rock are dangerous to ships approaching in a fog. They are described under Landmarks. Two reefs lay northwest of Thistle Rock, 180 meters distant, bares 9 feet at M.L.L.W. The other, 320 meters distant, bares $\frac{1}{2}$ foot at low tide.

There are numerous other rocks and reefs in Spiridon Bay. Many were located by the hydrographic party. All are shown on the hydrographic sheet (# 13) and described in the hydrographic report. These should be seen.

INDUSTRY. Salmon fishing is carried on actively. During the summer of 1929 there were several fish traps near the entrance to Spiridon Bay, and many gill nets everywhere. Seiners made frequent hauls in the bay.

SURVEY METHODS. Due to the distortion of this sheet, allowance for distortion had to be made during most of the survey. Traverses or traverses combined with three point fixes were the methods used in obtaining the shoreline.

A traverse was run from triangulation stations Bank to Mound, without closing error. A split traverse was run between triangulation stations Mound and Bird Rock, meeting at signal Ez with a 20 meter closure in distance, and at signal Out with a 60 meter closure in distance. There was no error in azimuth at the meeting points. These large errors necessitated adjustment in the field. The outer reef $\frac{1}{4}$ mile off Chief Point which bares 2 feet at M.L.L.W. was located by cuts from triangulation stations Bird Rock and Mound. It was occupied with the planetable and a check cut taken to triangulation station Red. Cuts were taken from this reef to the signals and reefs from signals Es to Get. This made an adjustment of the traverses possible. While set up at this reef, the rocks awash 200 meters N. by E. of it were rodded in. The submerged rock 120 meters S. by E. of it was also located by rod, a $\frac{1}{3}$ of the rod being under water. to

The shoreline from triangulation station Bird Rock Signal Stop was done by a combination of traverse with checks by three point fix. There was no closing error. The shoreline from signals Stop to Cliff was traversed with a 16 meter closing error. This was distributed over the entire distance. The shoreline from signal Pat to triangulation station Gre was traversed without error. The traverse from triangulation stations Gre to Big was run without closing error.

The elevations and contours of the ridges on both sides of Spiridon Bay were obtained by planetable from points on the opposite shore. The elevations and contours from triangulation station Red northward were obtained by planetable cuts, supplemented by sextant cuts from a launch laying at positions about 1 mile offshore.

The shoreline from triangulation stations Pat to Gre and from triangulation stations Mop to Stop was surveyed by P. Bernstein. The shoreline from triangulation stations Stop to Cliff was surveyed by J. C. Mathisson. The shoreline from triangulation stations Bank to Mop and from triangulation stations Gre to Big as well as the contours was surveyed by L. S. Hubbard.

Note: when this sheet was made the regular topo. sheets could not be found, hence a substitute paper was used. All other sheets are on the proper paper. R. S. L.

GEOGRAPHIC NAMES.

The following place names are suggested:-

Well established Local Names.

NAME.	REMARKS.
<u>Spiridon Bay.</u> (D&N)	Named after the Russian Saint, St. Spiridon. ✓
Chief Point. ✓	This name is locally applied to the native village, the large island, and the peninsula in this vicinity. ✓

Names Assigned by the Field Party.

NAME.	REMARKS.
Chief Cove. ✓	Name suggested by nearness to Chief Point. ✓
Bird Rocks. ✓	It is suggested that the name be applied to the entire group of which Bird Rock is a member.
<i>Ostlands on Sep 44662</i> <u>Nest Rock.</u> (D&N)	Name suggested by many nesting birds found here.
Hook Point. ✓	Name suggested by shape of point.
<u>Clover Rock.</u> (D&N)	Name suggested by shape of rock. <i>approved by H.B.</i>
<u>Thistle Rock.</u> (D&N)	Name suggested by barrenness of rock and <i>approved by H.B.</i> puncturing possibilities to ships. ✓

LIST OF PLANETABLE POSITIONS.

OBJECT.	LATITUDE.	D.M.	LONGITUDE.	D.P.	HEIGHT.	REMARKS.
Signal Que.	57° -43'	508m.	153° -55'	816	7 ft.	Top of reef.
" Dot.	57° -41'	356	153° -46'	469	12 ft.	Pinnacle rock.
" Hit.	57° -40'	989	153° -43'	873	20 ft.	Pinnacle rock.
" Car.	57° -41'	429	153° -46'	840	5 ft.	Rock in bight.
" Who.	57° -38'	1773	153° -51'	262	15 ft.	Large conspicuous rock on shore.
" Ril.	57° -38'	1608	153° -44'	785	20 ft.	Pinnacle rock off point.

L. S. Hubbard.
L. S. HUBBARD. JNR. H. & G. E.

*afford
R. P. Lusk.*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY
L. & A.
DEC 19 1929
Acc. No.

REG. NO.

44662

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. H.

REGISTER NO. 44662

State ALASKA.

General locality KODIAK ISLAND.

Locality SPIRIDON BAY, ENTRANCE AND WEST HALF.

Scale 1:20,000 Date of survey JUNE -- JULY., 1929.

Vessel Str. SURVEYOR.

Chief of Party R.R. LUKENS.

Surveyed by L.S. Hubbard, P.L. Bernstein, and J.C. Mathisson.

Inked by L.S. Hubbard.

Heights in feet above M.H.W. to ground ~~to tops of trees~~

Contour, Approximate contour, Form line interval 100 feet

Instructions dated MARCH 14-th, 1929

Remarks:

4466b

4466b

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
C. & G. SURVEY L. & A. DEC 19 1929 Acc. No.	
State: <u>Alaska</u>	
11-5613	
DESCRIPTIVE REPORT.	
Topographic Sheet No. <u>"Ha"</u> 4466b	
LOCALITY:	
<u>Kodiak Island</u>	
<u>Lower Spiridon Bay-East</u>	
<u>Part.</u>	
<u>1929</u>	
CHIEF OF PARTY:	
<u>R. R. Lukens,</u>	

DESCRIPTIVE REPORT

to accompany Topographic Sheet "Ha"

LOWER SPIRIDON BAY

Scale 1:20,000.

4466 b

Str. SURVEYOR.

R. R. Lukens, Com'd'g.

GENERAL DESCRIPTION

The shore line within the limits of the sheet is moderately steep and high and precipitous in places. At the head of the bay and in Weasel Cove the shore line is not so bold but the slope makes up from high water with a rather steep and uniform gradient. There are few beaches in Weasel Cove and alder brush grows down to the waters edge and in many places overhangs the high water line. Throughout the area of the sheet thick alder brush grows up to an elevation of from 1500 feet (458 m) to 2000 feet (610 m) on the sides of the mountains. The area to the north of Telrod Cove and the easy slopes at the head of the bay are covered with a dense growth of alder brush and high grass. All islands in the area are grass covered and with no trees, excepting Big Island. Big Island has a small group of alder brush as shown and the rest of the island is covered with a heavy growth of high grass. All bluffs on the sheet are of rock.

LANDMARKS

Ditto Islands (D & N)

DITTO ISLAND and BAD ISLAND are similar in appearance with precipitous rock bluffs all around and grass covered. These two islands are conspicuous to vessels entering the bay. *Ditto Islands suggested by H.B.*

FISH ISLAND, just north of Big Island, is grass covered and conspicuous. The southwest end of the island is highest and slopes uniformly to about 10 feet (3 m) elevation at the north-east end. *OK. sent to H.B.*

STREAM POINT on the north side of the bay is prominent. The bluffs around the point are about 40 feet (12 m) high and the land to the north has a uniform slope to two hills that show conspicuously to the west. *sent to H.B.*

OK
D & N

NARROW ISLAND at the narrowest part of the bay, is of uniform height, averaging about 15 feet (4.6 m) in elevation. The island is grass covered and stands out prominently to the southeast and northwest.

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Not suitable as a name

CHARACTER OF CONTROL

Triangulation control was used on the sheet. The scheme was extended from the work done in the vicinity in 1908.

ERRORS

Closing errors on the sheet were rather large but were within the allowable limit. These errors were due principally to the fact that the projection was made too far in advance of the work and the sheet was left in a damp tent in camp and it distorted. Distortion took place in only one direction and it was difficult to make allowance in running traverses. The fiducial edge of the alidade was also untrue, being about 10 meters (on a 1:20,000) concave from a straight line. This alidade was the only one available at the time. These errors were in distance mostly with only slight error in azimuth.

A summary of traverses run with errors is given:

FROM	TO	TRAVERSE ERROR
Cliff	Stream	15 meters
Stream	Slope	10 "
Slope	Tipe	5 "
Tipe	Limit	23 "
Limit	Bite	10 "
Bite	Up	10 "
Up	Bear	5 "
Bear	Big	15 "

All of these traverses were within the allowable error and they were distributed as required.

SURVEY METHODS

Straight planetable traverse between triangulation stations as prescribed in the Topographic Manual, was used. Each set up was checked with a back sight to verify the distance. No fixes were attempted on the sheet. All elevations determined on the sheet were taken with the alidade with at least three cuts to each point determined. The mean of the elevations at a point was taken as the elevation of the point.

The location of the signals on Bad Island, Ditto Island and Gull Island were first located by cuts along traverses. Later a traverse was run from BIG to Gull Island and from

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here to Bad Island and Ditto Island without a closure. The traverse checked the location of these signals. All off-lying rocks were located by rod readings.

MARSHES

The grass covered marsh at the head of the bay is covered about two feet at high tide. The marsh is small in area and only covers a small area at the head of the bay and on both sides of the stream that flows into the bay at this point.

NEW NAMES

There are no local names for any of the features in the area of the sheet. All of the following names were assigned by the field party.

✓ FISH ISLAND, probably the most conspicuous island in the group, was named because of its resemblance of a fish.

✓ BIG ISLAND was named because it is the largest island in the bay.

✓ GULL ISLAND so named because of the many sea gulls that frequent it during nesting season.

✓ BAD ISLAND and DITTO ISLAND are both arbitrary names.

✓ STREAM POINT was named because of the large stream that flows into the cove to the east.

✓ TELROD COVE was named because the survey party located a lost telemeter rod in the cove. The name has no local significance.

✓ NARROW ISLAND was named because it is situated at the narrowest part of the bay.

✓ WEASEL COVE named because of the numerous weasels seen on the beach in the cove.

Recommended
Anguk native word for Big
Recommended
Too many Hull Is.

Would discard the name Bad Is. and give the name Ditto Islands to the two. H.B.

OK
H.B.

Not suitable
H.B.

OK
H.B.

Respectfully submitted,

John C. Mathisson.
John C. Mathisson, Aid.
Topographer

Approved:

R. R. Lukens.
R. R. Lukens,
Chief of Party.

LIST OF PLANETABLE POSITIONS.

<u>OBJECT AND DESCRIPTION.</u>	<u>LAT:</u>	<u>D.M.</u>	<u>LONG:</u>	<u>D.O.</u>	<u>HEIGHT.</u>
SIGNAL US---large, round, flat top rock lying about 10m offshore.	57-37	+ 1465m.	153-36	+ 362	10ft.

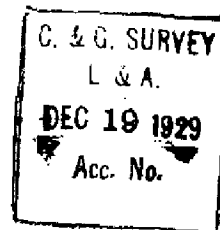
STATISTICS FOR SHEET "H_a".

Statute miles of shore line. 23.5

Area, square statute miles. 43.4

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET



REG. NO.

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. "Hau"

REGISTER NO. 4466b

State Southwest Alaska.

General locality Kodiak Island.

Locality ~~former~~ Spiridon Bay East Part

Scale 1:20,000 Date of survey July, 1929

Vessel Steamer SURVEYOR

Chief of Party R. B. Lukens

Surveyed by John C. Mathisson.

Inked by J. C. M.

Heights in feet above high water to ground ~~XXXXXX~~

~~XXXXXX~~ Approximate contour Form line interval 100 feet

Instructions dated March 14, 1929

Remarks: