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COAST AND GEODETIC SURVEY

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Superintendent.

State: Alaska

## DESCRIPTIVE REPORT.

Hyd. Sheet No. 3566

### LOCALITY:

Cook's Inlet  
West Shore  
Christina Bay to  
Oil Bay & Tross Cove

1913

### CHIEF OF PARTY:

C. J. Gilliam

11-4045

3566

HYDROGRAPHIC SHEET NO. ~~3566~~ 3566.

KAMISHAK BAY

COOK INLET

ALASKA

Steamer McArthur

C. G. Quillian, Asst.

Chief of Party

Hydrography by

O. J. Bond, Jr, Aid

H. B. Campbell, Aid

R. Arey, Aid

Scale

1:40,000

Aug 6 to Sep 21

1913

*Lillian*

DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET# 2



This sheet contains the inshore hydrography from  $\odot$  Slant ( where the former work stopped in 1911) to a line East of  $\odot$  Dam in Ursus Cove, with the exception of Iliamna Bay ( done in 1908) and Iniskin Bay (hydrographic sheet # 1 of this season.) .

The coast <sup>S</sup> is steep and rocky. There are numerous sand beaches in the heads of the bights and bays but they cover at high water. In many places there are perpendicular bluffs and slides. The hills are green, covered with grass and alder, and in places show peculiar formations of the strata.

Tide rips occur off Chinitna Point at half tide when the current is strongest.

The only good harbor along this stretch of coast is in Iniskin Bay. Iliamna Bay affords mediocre shelter, but is exposed ~~to~~ to <sup>E'ly</sup> ~~W'ly~~ or <sup>SE'ly</sup> ~~SW'ly~~ weather. Iniskin Bay is excellent shelter, and is the only practicable place to beach a ship. The anchorage in Iniskin was described on the sheet of that bay. <sup>Along the general coast</sup> Small boats can get some little shelter close inshore from N'ly blows but none from S'ly blows. In the small bight just around Chinitna Point, or in Dry Bay or Oil Bay, some shelter can be obtained from N'ly winds, but it would be preferable to run into Iniskin. Below Iniskin shelter from W'ly winds is obtainable at the head of Ursus Cove, but ~~it~~ it is open to the wind and sea from the E'ly quadrants.

The currents flow with the tides along the coast-- NE'ly on the flood, and SW'ly on the ebb.

Gales come from the NE to the SE, and raise quite a sea on the coast. W'ly winds are frequent, with clear weather and only a choppy sea. In summer there <sup>is</sup> little rain, and much clear weather. Fogs are infrequent in summer, and there is no ice.

Chinitna Point is a steep slope of green appearance, covered with alder and grass. The shore drops off abruptly, and is rocky, with small sand beaches in places. Pomeroy Island is a small island of about two acres in area, covered with grass, with a few trees on the western end. The shore is abrupt and rocky.

Iniskin Island is about one acre in area, covered with grass, and having no trees. It's shore is also abrupt and rocky, with

numerous boulders lying around. Just to the eastward of Pomeroy Island is a large bare rock ( called @ Big) which stands about <sup>"about 15 ft" according to description of Hyd. Sheet 3567</sup> 10 feet above high water. There is a reef off either end of it

which breaks. The North point at the entrance to Ursus Cove is a steep eroded bank with no vegetation on it. On the NE'ly side of this mountain, the slope is more gradual, and there is grass and alder.

The reef off Chinitna Point bares about  $\frac{1}{4}$  mile offshore but the shoal water extends off about  $\frac{3}{4}$  mile. All along the coast from Chitnitna Point to Oil Bay, there is Shoal water and rocky bottom extending offshore to various distances but no further off than one mile. This does not bare except close inshore. They break in heavy weather almost out to their extremities. Northward of Chinitna Point good water comes in to  $\frac{1}{2}$  mile offshore. Dry Bay is shallow and rocky bottom, except close in to the sand beach at the head of the bay. Oil Bay is shallow and rocky also, the five fathom curve not entering the bay. There is a rock  $\frac{1}{2}$  mile offshore in a SE'ly direction from the point at the west side of the entrance to Oil Bay. This rock bares at half tide.  $\frac{1}{2}$  mile outside of this rock is a shoal spot of least depth of ten feet which does not break. Submerged rocks which bare at different stages of the tide

extend all along the coast from here to Iniskin Bay, which have been described on the sheet of Iniskin Bay. Off the southern entrance to Iliamna Bay, extends Turtle Reef, which is bare at all stages of the tide  $\frac{1}{2}$  mile offshore. Breakers are seen in heavy weather 300 meters outside of these bare rocks. Rocky bottom is obtained inshore along the stretch between Iliamna Bay and Ursus Cove. Apparently the bottom is covered with boulders. Off the point ~~at~~ the northerly entrance to Ursus Cove, the reef bares about  $\frac{1}{2}$  mile to the eastward. The five fathom curve rounds this point about a mile off and inside of it, rocky bottom prevails with lumps on the bottom. Along the southern shore of Ursus Cove, the reefs extend offshore to almost  $\frac{1}{3}$  mile, baring in some places, the bottom being rocky and lumpy. The middle of Ursus Cove is free from rocks but the five fathom curve hardly enters the bay. The bottom is sandy and muddy.

The tendency would be for wrecks to break up rapidly, as quite a sea makes in along the coast in SE'ly weather.

Vessels would do well to stay a mile offshore and more where the larger reefs extend off. There are no banks where the lead would be an indication of the ship's position.

The only good anchorage for heavy weather is in Iniskin Bay. In good weather, ships can anchor offshore anywhere along the coast as there is no deep water except around and to the northward of Chinitna Point.

Small/<sup>boats</sup> can land easily anywhere in good weather, but in bad weather it would be difficult except at the heads of the bays, as the coast is very exposed.

There are no rivers of any size that even small boats can enter

Many of these streams can be used for watering places, and a whaleboat can be pulled up under them and filled in five minutes. In other places buckets could easily be used.

There are no lights or buoys along this stretch of coast.

The sailing directions for entering Iniskin Bay are given on the other sheet.

The work was done with a steam launch using a hand leadline. The control was a topographic survey.

*Respectfully submitted*

*O J Bond jr*

*Aid, C & G Survey.*

DESCRIPTIONS OF HYDROGRAPHIC SIGNALS

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS

1 9 1 3

K A M I S H A K B A Y ,

C O O K I N L E T ,

A L A S K A .

-----o-----

Party of

C. G. Quillian,

Assistant, Coast and Geodetic Survey,

Commanding Steamer "McARTHUR"

- I N D E X -

<u>SIGNAL</u>	<u>PAGE</u>	<u>SIGNAL</u>	<u>PAGE</u>	<u>SIGNAL</u>	<u>PAGE</u>	<u>SIGNAL</u>	<u>PAGE</u>
Al	13	Creek	16	Lead	7	Rub	21
All	2	Crib	4	Ledge	7	Rube	21
Arch	13 & 2	Dam	16	Led	19	Run	21
Ate	2	Den	16	Left	19	Sak	21
Axe	2	Dot	4	Less	19	Sob	11
Back	13	Doub	4	Lone	19	S. Base	10
Ban	2	Drop <del>y</del>	17	Lost	8	Slim	11
Bar	13	Dry	17	Low	25	Sam	10
Bat	13	End	17	Luk	8	Sara	21
Bay	2	Entrance	4 & 17	Maid	19	S. Head	22
Beach	13	Face	17	Mat	8 & 19	Sot	22
Bean	13	Fall	5	Mate	8	Slope	22
Bell	2	Fat	5	Mel	19	Slant	21
Bend	14	Fir	5	Mug	8	Slush	22
Big	14 & 3	Flag	5 & 17	Mound	△ Desc.	Small	22
Bill	14	Flat	5	Mush	8	Spot	22
Bit	3	Fox	17	Mule	19	Sun	22
Blue	14	Gin	5	Near	20	Swat	23
Bluff	14	Gor	17	Nort	20	Step	22
Bob	3 & 14	Gull	18	N. Base	8	Snow	11
Bole	15	Ham	6	N. Head	20	Square	11 & 25
Boulder	3	Hay	6	Not	9	Tall	11
Boy	3	Hen	18	Oar	9	Tan A	11
Brite	15	Hill	6	Oat	20	Tan B	11
Brown	15	Hoe	6	Oil	20	Tine	24
Cab	3	Hole	6	On	9	Tom	23
Camp	3	Hoo	6 & 18	Out	9 & 20	Tower	25
Can	15	Hunt	18	Pale	9	Turf	23
Cliff	4	Inis	6 & 18	Peat	9	Uno	23
Cat	15	Isle	7	Pin	9 & 20	Ursus	23
Cascade	15	Jane	7 & 18	Point	10	Vim	23
Con	4	Jo	7	Pom	△ Desc.	Wash	23
Chit	16	Key	18	Red	10	Water	12
Cent	15	Kit	7	Reef	10	White	12 & 24
Coal	16	Knoll	7 & 18	Rock	10	Who	12
Clif	16	Knob	7	Roy	10 & 21	W. Aug.	△ Desc.
Cot	16						



LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS  
-----

ALL

Whitewashed boulder on W. shore of bay  
about 3 miles N. of entrance. Unmarked.

ARCH

Whitewashed boulder on W. shore of bay  
about 2-3/4 miles N. of entrance. Unmarked.

ATE

Whitewashed boulder on W. shore of bay  
about 200 meters S. of bluff at  $\Delta$  Ledge.  
Unmarked.

AXE

Whitewash on N. Side of rocky bluff 600  
meters S. of  $\Delta$  Ledge. Unmarked.

BAN

Pole signal at small stream just S. of  
bight below S. Base. Unmarked.

BAY

Whitewashed boulder on beach in small  
bight 1-1/2 miles N. of right arm of bay.  
Unmarked.

BELL

Whitewashed boulder on beach, W. shore,  
midway between  $\Delta$  Ledge and  $\Delta$  Boulder.  
Unmarked.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

BIG

Large rock about 1/2 way between  $\triangle$  Roy and Oil Bay. Does not cover at H.H.W. Unmarked.

BIT

Whitewashed boulder on beach about 200 meters below  $\triangle$  Boulder. Unmarked.

BOB

Whitewash on point on south tangent, E. entrance to bay. Unmarked.

BOULDER

See Triangulation Records.

BOY

Whitewash on point between Camp bight and larger bight to northward. Unmarked.

CAB

Whitewash on rock 50 meters NW. of cabin in bight to northward of Camp bight. Unmarked.

CAMP

Whitewash on rocky point, N. side of Camp bight. Unmarked.

Page 4.  
LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

CLIF

Whitewashed rock under high cliff along grassy shore in upper part of bay. Unmarked.

CON

Whitewashed rock on W. shore of bay, about 200 meters N. of  $\triangle$  Boulder. Unmarked.

CRIB

Whitewashed boulder on W. shore of bay about midway between  $\triangle$  Boulder and  $\triangle$  Ledge. Unmarked.

DAM

Pole signal in right arm of bay on point on S. shore from which smaller arm makes out. Unmarked.

DOUB

Whitewashed boulder about 50 meters N. of point, E. entrance to bay. Unmarked.

DOT

Pole signal on beach, right arm, N. shore. Unmarked.

ENTRANCE

See Triangulation Records.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

FALL

Whitewash on face of cliff at water fall  
300 meters in from 2d point on E. shore from  
E. entrance. Unmarked.

FAT

Whitewash on cliff in bight, E. shore.  
Unmarked.

FIR

Banner nailed on largest of four fir  
trees on point in northern part of bay.  
Point is prominent. Marked by triangle  
blazed in trunk with nails in center.

FLAG

Small topographic flag on mud flat.  
Unmarked.

FLAT

Whitewash on flat rock about 600 meters below  
△ Knob. Unmarked.

GIN

Whitewash on boulder on beach about 400  
meters below △ Knob on east side of bay.  
Unmarked.

Page 6.  
LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

HAM

Whitewashed boulder on beach on west side of bay, about half way between  $\triangle$  Knoll and  $\triangle$  Boulder. Unmarked.

HAY

Whitewash on cliff on west side of bay about 1/2 mile north of  $\triangle$  Knoll. Unmarked.

HILL

Whitewash on cliff on north side of bay, about 1-3/4 miles true north of  $\triangle$  Knob. Unmarked.

HOLE

Whitewashed boulder on beach on west side of bay, about half way between  $\triangle$  Knoll and  $\triangle$  Boulder. Unmarked.

HOE

Whitewashed boulder on beach on west side of bay, about 600 meters north of  $\triangle$  Boulder. Unmarked.

HOO

A wide waterfall on coast, about 2-1/2 miles east of east entrance to Iniskin Bay. Unmarked.

INNIS

See Triangulation Records.  $\triangle$  Inniskin.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

ISLE

See Triangulation Records.

JANE

Whitewash on boulder about 1-1/2 miles  
NW. of  $\triangle$  Roy. Unmarked.

JO

Whitewash 200 meters S. of  $\triangle$  N. Base  
along E shore of Iniskin Bay. Unmarked.

KIT

Whitewash just above H/W., in NE. bight  
of Iniskin, about 1 mile NE. of  $\triangle$  Peat.  
Unmarked.

KNOLL

See Triangulation Records.

KNOB

See Triangulation Records.

LEAD

Whitewash on boulder 100 meters N. of  $\triangle$   
Ledge, W. shore of Iniskin Bay. Unmarked.

LEDGE

See Triangulation Records.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

LOST

Whitewash in small bight, about half way around bight, E. shore of Iniskin Bay 1 mile SE. of  $\Delta$  Knob.

LUK

Whitewash on face of cliff 6 feet, about H.W. half way between N. and S. Base. East shore of Iniskin Bay. Unmarked.

MAT

Whitewash on point W. of Oil Bay, just back of  $\odot$  Big. Unmarked.

MATE

Whitewash on point between two valleys at head of NE arm of Iniskin Bay. Unmarked.

MUG

Whitewash, west shore of Iniskin Bay, about half way between  $\Delta$  Knoll and  $\Delta$  Boulder.

MUSH

West tangent of most westerly of the mushrooms at entrance to Iniskin Bay, as seen from outside.

N. BASE

See Triangulation Records.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS  
-----

NOT

Whitewash on bluff, about 350 meters N. of Camp beach, east shore of Iniskin Bay. Unmarked.

OAR

Signal cloth on stub of oar at head of Iniskin Bay, on outer edge of grass on H.W. line, 600 meters N. of stream coming out above Sugarloaf Mountain. Unmarked.

ON

Whitewash on boulder on west shore about 500 meters below  $\Delta$  Boulder. Unmarked.

OUT

Whitewash on boulder, west shore, about 1,000 meters below  $\Delta$  Boulder. Unmarked.

PALE

Whitewash on yellow bluff, east shore, near N. end of the bluff, about 300 meters below old shack at Oil Bay trail. Unmarked.

PEAT

Banner on small yellow pinnacle on east shore on point 1/2 mile above  $\Delta$  Knob. Unmarked.

PIN

Whitewash on boulder about 300 meters above  $\Delta$  Knoll. Unmarked.



LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

POINT

Whitewash on N'ly of two points just inside of island at entrance to bay; east shore of Iniskin Bay. Unmarked.

RED

Topographic flag, west shore, about 1,900 meters above  $\Delta$  Ledge. Unmarked.

REEF

Not used. Lost.

ROCK

White rock (prominent) on first mountain above Sugar Loaf, almost 200 ft., above H.W., about 3-1/4 miles above  $\Delta$  Ledge.

R O Y

See Triangulation Records.

SAM

Small topographic flag on S. tangent of point dividing two arms of bay, at head of Iniskin Bay. Unmarked.

S. BASE

See Triangulation Records.

SLIM

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

SLIM

Whitewash on face of steep slide 1/2 mile below back of bight where Oil Bay trail makes in, east shore of Iniskin Bay. Unmarked.

SOB

Whitewash on face of rocky cliff at S. Base.

SNOW

Southern tangent of large prominent triangular patch of snow at head of Iniskin Bay, where large stream comes in at NW. corner.

SQUARE

Square whitewash on face of cliff in small bight 1/2 mile S. of  $\triangle$ Knob. Unmarked.

Tall

Small Whitewash on east shore 1/2 mile above Camp site. Unmarked.

TAN A

Most northerly tangent in NE arm of Iniskin Bay.

TAN B

The tangent just south of Sig.  $\odot$  Fir.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

WATER

Whitewash on face of cliff, east shore, about 400 meters above small stream, half way between  $\odot$  Point and head of bight at Oil Bay trail. Unmarked.

WEO

Small whitewash, west shore, about 1/3 dist. between  $\triangle$  Knoll and  $\triangle$  Boulder. Unmarked.

WHITE

Small whitewash at base of Sugar Loaf Mt., about half way between  $\triangle$  Ledge and head of Iniskin Bay, west shore. Unmarked.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

AL

Whitewash on small point, first one in from W. entrance to Dry Bay. Unmarked.

ARCH

First prominent point north of Chinitna Point about 1-1/2 miles. The point has a natural arch thru it. Unmarked.

BACK

Banner on beach, in back of Dry Bay. Unmarked.

BAR

Whitewash on boulder one mile W. of Dry Bay. Unmarked.

BAT

Whitewash on boulder on second point east of Oil Bay entrance point, about one mile. Unmarked.

BEACH

Whitewash on rocky point on N. side of Ursus Cove. About 5 miles in from  $\triangle$ Ursus. Signal is about 1/4 way down sandy beach. Unmarked.

BEAN

Whitewash on boulder of rocky shore about half way between Dry Bay and Chinitna Point. Unmarked.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

BEND

Whitewash on rocky point at head of Ursus Cove just south of mouth of stream. Unmarked.

BIG

Large rock about 1/2 way between  $\triangle$  Roy and Oil Bay. Does not cover at H.H.W. Unmarked.

BILL

Whitewash on boulder, E. side of Oil Bay, half way in from entrance to sand beach. Unmarked.

BLUE

Whitewash on point 1 mile in from  $\triangle$  Ursus, north side of Ursus Cove, Unmarked. Named from appearance of rock.



BLUFF

See Triangulation Records for description.

BOB

Whitewash on point on south tangent, E. entrance to Bay. Unmarked.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

BOLE

Whitewash on largest boulder of pile of rocks slid down from mountainside 4-1/2 miles in on north side of Ursus Cove. Unmarked.

BRITE

First waterfall 1 mile south of @ Cascade, 5 miles north of Chinitna Point.

BROWN

Top of brown hill on north side of Ursus Cove.

CAN

Center of small canyon 1 mile W. of Dry Bay.

CASCADE

Very prominent cascade 6 miles north of Chinitna Point. Stream empties over rocky ledge towards upper end of sand beach.

CAT

Whitewash on rocky steep shore, east side of Oil Bay. Unmarked.

CENT

Whitewash on boulder 1 mile east of stream in back of Dry Bay. Whitewash is just back of square obelisk shaped rock standing clear of shoreline. Unmarked.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

CHIT

See Triangulation Records.

CLIFF

Whitewash at foot of steep hill, south side  
of Ursus Cove. Unmarked.

COAL

Whitewash on point 1 mile N. of entrance  
to Rocky Cove. Unmarked.

GOT

Whitewash on rocky point half way between  
Ursus Cove and Iliamna Bay. Unmarked.

CREEK

Banner signal just on north side of creek  
coming into Rocky Cove. Unmarked.

DAM

Whitewash on offshore rock that does not  
cover, south side of Ursus Cove, about 3 miles  
out from stream at head. Rock about 400 meters  
offshore. Unmarked.

DEN

SW. point (highest) top of mountain at W.  
entrance to Iniskin Bay.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

DROP

Waterfall on N. shore of Ursus Cove half way from head to entrance.

DRY

See Triangulation Records.

END

Banner in middle of beach at head of Oil Bay. Unmarked.

ENTRANCE

See Triangulation Records.

FACE

Whitewash on face of cliff just left of  
© Drop. Unmarked.

FLAG

Flag at W. end of beach at head of Oil Bay.  
Unmarked.

FOX

Whitewash on boulder 1 mile north of Chinitna Point. Unmarked.

GOR

Whitewash on north shore of Rocky Cove.  
Unmarked.



LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

GULL

Boulder just offshore 1/2 mile NW. of E. entrance to Oil Bay. Top of rock has white appearance.

HEN

Whitewash on boulder at W. end of beach at head of Dry Bay. Unmarked.

HOO

Waterfall about NE. of  $\triangle$  Roy.

HUNT

Whitewash on boulder 3 miles north of Chinitna Point. Unmarked.

INNIS

See Triangulation Records,  $\triangle$  Iniskin.

JANE

Whitewash on boulder, about 1-1/2 miles NW of  $\triangle$  Roy. Unmarked.

KEY

Whitewash on face of rocky wall where stream flows into Dry Bay. Unmarked.

KNOLL

See Triangulation Records.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

LED

Whitewash on point half way between Oil Bay  
and Dry Bay. Unmarked.

LEFT

Whitewash 1/2 mile east of Dry Bay. Looked  
at from west, the small point shows an arch, about  
5 feet high. Unmarked.

LESS

Whitewash on boulder at west entrance to  
Oil Bay. Unmarked.

LONE Whitewash on boulder at W. entrance to Oil Bay.  
Unmarked.

MAID

Small bridal veil falls about 4 miles N.  
of Chinitna Point.

MAT

Whitewash on point W. of Oil Bay, just  
back of @ Big. Unmarked.

MEL

Whitewash on first point 1/3 mile E. of  $\triangle$   
Oil, just east of Oil Bay. Unmarked.

MULE

Flag at W. end of beach at head of Oil Bay.  
Unmarked.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

NEAR

Whitewash on boulder at W. entrance to  
Oil Bay. Unmarked.

NORT

Northerly one of three small forks of  
stream running down face of cliff at NE.  
corner of Oil Bay.

NORTH HEAD

See Triangulation Records.

OAT

Whitewash on boulder, E. shore of Oil Bay,  
1 mile N. of  $\triangle$  Oil. Unmarked.

OIL

See Triangulation Records.

OUT

Whitewash on rocky point at W. end of beach,  
on south shore of Ursus Cove, 1-1/2 miles out  
from mouth of stream, at head of bay. Unmarked.

PIN

Whitewash on outer face of pinnacle rock  
just offshore on N. shore of Ursus Cove, 1/2  
mile E. of sandy beach at head of bay.  
Unmarked.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

POM

See Triangulation Records.

ROY

See Triangulation Records.

RUB

Whitewash on face of rocky cliff 1/2 mile  
N. of entrance to Ursus Cove. Unmarked.

RUBE

Whitewash on face of cliff 3/4 miles NW.  
of Chinitna Point, at W. end of beach. Unmarked.

RUN

Whitewash on rocky face 1 mile N. of  
Chinitna Point. Unmarked.

SAK

Whitewash on boulder at W. entrance to Dry  
Bay, 1/2 mile east of  $\triangle$ Dry. Unmarked.

SARA

Tip of pinnacle rock just offshore 3/4 mile  
S. of S. Head (the S. entrance to Iliamna Bay).  
Shows plainly from along the shoreline. Unmarked.

SLANT

Whitewash on sloping face of rocky mountain  
side 6-1/2 miles N. of Shinitna Pt: In descriptions  
of 1911.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

SLOPE

Whitewash at north end of beach at head of  
Ursus Cove. Unmarked.

SLUSH

Whitewash on boulder just below  $\triangle$ Dry, 1/2  
mile W. of Dry Bay.

SNALL

Whitewash on point along N. shore of Ursus  
Cove, 1 mile E. of sand beach at head of bay.  
Unmarked.

SOT

Whitewash on point at N. entrance to Rocky  
Cove. Unmarked. About 2 miles from creek at  
head of Cove.

SOUTH HEAD

See Triangulation Records.

SPOT

Whitewash on boulder 2 miles W. of  $\triangle$ Ursus, on  
north shore of Ursus Cove. Unmarked.

STEP

See Triangulation Records.

SUN

Whitewash on small point 1-1/2 miles S. of  $\triangle$   
S. Head. Unmarked.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

SWAT

Whitewash on boulder 1-1/4 miles W. of  
Chinitna Point. Unmarked.

TOM

Whitewash on boulder on rocky shoreline just  
W. of Oil Bay, about a mile NE of @ Big. Unmarked.

TOP

Top of small rock lying just offshore, just  
south of @ Brite, along shore N. of Shinitna  
Point. Unmarked.

TURF

Pole signal. See Triangulation Records.

UNO

Whitewash on small point along S. shore of  
Ursus Cove, about 1 mile S SE of @ Dam.

URSUS

See Triangulation records.

VIM

Small whitewash on point on W. shore of  
Oil Bay, about 3/4 S. of sand beach. Unmarked.

WASH

Whitewash on point just back of @ Dam, about  
1/3 mile W.

LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.

WHITE

Whitewash on point just vack of @ Dam, about  
1/3 mile S.

TINE

A pole signal about center of cove on N.  
side Augustine Island, about NW from Vol., Summit.  
The signal is on a small grass covered bluff  
a few hundred yards east of the growth of wild rye,  
which grows along shore.

The location can be found by following range;  
Knoll on W. tangent of Augustine Island is just N.  
of H.W. Mark, on a spit 1/4 mile west of signal.  
Signal is some 20 meters from H.W., and 5 meters  
back of edge of bluff, is a pole signal built on  
a large boulder about 3 ft., high and 11 ft., long  
in E & W direction, by 7 ft., N. & S.

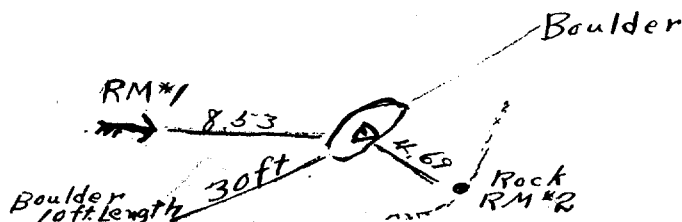
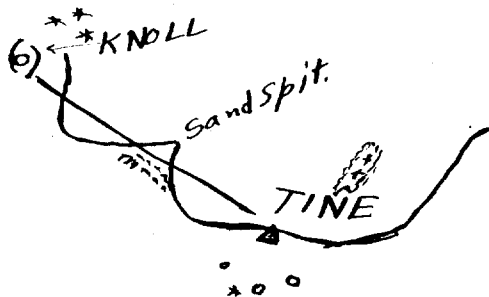
Marked center by a 4" copper bolt 3/4"  
in diameter leaded into the center of the  
boulder and near its highest part, projected  
2" and is marked thus-



R.M. No. 1: A 10" arrow pointing toward  
signal, dist. 8.53 m. Arrow is nearly in range  
between signal and volcano.

R.M. No. 2: Dist. 4.69 m. An arrow on boulder  
near edge of bluff and toward water from No. 1.

Signal located by couple of cuts from ship.



LOCATED BY PLANETABLE OR CUTS  
FROM SOUNDING BOATS.  
-----

SQUARE

An unmarked whitewash on cliff, about midway between Step and highest part of Fortification Bluff.

LOW

An unmarked whitewash nearly under Step, on south side, on a rock on a slide a little east of break in cliff.

TOWER

A 10 ft., square whitewash on cliff some 10 to 15 ft., above H.W., near west end of Fortification Bluff.

Marked by a "T" cut 1/4" deep, sides 5" long, below center of the whitewashed square.



POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

(PRESS OFFICE:

**Department of Commerce and Labor**  
**COAST AND GEODETIC SURVEY**

One position on alternate pages was replotted  
and all checked well. This is about one in ten  
positions checked.

*Harry Leypoldt*

Aid, Coast & Geodetic Survey.

## PLOTTING NOTE

This sheet was plotted principally with a Court celluloid pretractor. A steel pretractor was used occasionally for distant fixes.

Tracing paper was used for the plotting of the upper part, and tracing cloth with holes cut out over the signals for the lower part.

*O. J. Baird, Jr.*

Aid, C. & G. Survey.

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This sheet was plotted principally with a Court celluloid protractor. A steel protractor was used occasionally for distant fixes.

Tracing paper was used for the plotting of the upper part, and tracing cloth with holes cut out over the signals for the lower part.

*O. J. Bond, Jr.*

Aid, C. & G. Survey.

STATISTICS FOR HYDROGRAPHIC SHEET # 2

Date	Letter	Stat. Miles	Positions	Soundings
Aug 6	a	11.1	52	399
" 7	b	7.5	32	245
" 15	c	22.8	111	861
" 16	d	22.0	99	787
" 21	e	1.0	5	49
" 22	f	----	cuts	----
" 30	g	8.4	37	251
" 31	h	24.5	102	676
Sep 1	i	19.0	87	576
" 2	k	30.0	120	699
" 3	l	31.7	157	902
" 4	m	30.0	122	776
" 5	n	16.3	103	563
" 6	o	9.6	48	299
" 9	p	22.5	107	645
" 10	q	21.4	102	645
" 11	r	16.0	80	495
" 12	s	28.4	100	820
" 20	t	15.6	64	521
" 21	u	14.6	58	450
Totals	20	352.4	1586	10659

Total square statute miles 44

STATISTICS FOR HYDROGRAPHIC SHEET # ~~3566~~ 3566

Date	Letter	Stat. Miles	Positions	Soundings
Aug 6	a	11.1	52	399
" 7	b	7.5	32	245
" 15	c	22.8	111	861
" 16	d	22.0	99	787
" 21	e	1.9	5	49
" 22	f	----	cuts	----
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Total square statute miles 44

VEC  
Feb. 9, 1914.

HYDROGRAPHIC SHEET 3566.

Kamishak Bay, Cook Inlet, Alaska, by Assistant  
C. G. Quillian in 1913.

TIDES.

	Iniskin Bay ft.
Mean lower low water, or plane of reference on staff	6.8
Lowest tide observed " "	2.0
Highest " " " "	25.0
Mean range of tide	12.3

Hydrograph Sheet No. 3566.  
Kaniishak Bay, Alaska.

The positions for this work on this sheet were plotted by the field party and have been taken in general as correct, checking made only where errors were thought possible or to locate positions.

The work is considered good and the area surveyed appears sufficiently well covered to develop the bottom with a degree of accuracy.

There are however a number of rocks shown on this sheet and on the corresponding boat sheet of which no record is given therefore their existence and position can only be assumed as correct. Example, the submerged rock shown about east by south of 000AL about 2984 m was located and inked and a marginal note refers to a certain protracted position for its location. This reference does not appear in the records, at least was not able to discover it. It would seem <sup>advisable</sup> to locate all separate rocks and groups of rocks definitely either by occupying same and if this is not possible by several cuts designating each rock in a manner easily interpreted by the Draftsman.

The method of designating positions with small circles should be discontinued. (See Instructions for 298)

John D. Lowrey

July 27 18 Sketch made.

6/17/14.