4953

Diag. Cht. No. 8502-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ..... Office No. 4953

LOCALITY

State S. W. Alaska

General locality Halibut Bay

Locality Kodiak Island

1949

CHIEF OF PARTY

R. R. Lukens

LIBRARY & ARCHIVES

DATE .....

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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~~ / Hydrographic Sheet No. 21. 4953

LOCALITY

Kodiak Island.

Halibut Bay, ~~Cape Middle~~ to

Cape Ikolik.

1929.

CHIEF OF PARTY

R.R. Lukens.

U. S. GOVERNMENT PRINTING OFFICE: 1928

DESCRIPTIVE REPORT.

Hydrographic Sheet, Field No. 21.

Str. Surveyor. R.R. Lukens, Comdg.

Scale 1 : 20,000.

DATE OF INSTRUCTIONS

The work was done in accordance with Instruction's dated March 14, 1929.

LIMITS

The sheet comprises the inshore hydrography from Cape Middle to Cape Ikolik. Beginning at the northern extremity of Cape Middle, joining the work of Hydrographic Sheet #4148, it extends southward to Cape Ikolik, this being the southern limit of the season's work on the outside coast. The hydrography includes the areas of Middle and Gurney Bays. It extends offshore to a union with the ship work on Sheet, Field #7.

CONTROL

Control was established by planetable traverse between triangulation stations. No appreciable closing error was found in the topography.

TIDE GAUGE

Automatic Tide Gauge #212 at Uyak was used in the reduction of all sounding records without adjustment.

SURVEY METHODS

The usual survey methods as prescribed by the Hydrographic Manual were employed. Surveyor's Motor Sailer and Launch #3 were used.

Hand lead was used for sounding depths up to 10 fathoms. For greater depths a power driven sounding machine with a 20 pound lead was used. The registering sheaves were tested and found correct.

All sounding lines of the Motor Sailer were run on ranges, no compass bearings being recorded. Ranges were also used by the party on Launch #3 but with the headings of the boat compass being recorded.

DISCREPANCIES

No discrepancies of importance were found on the sheet.

DANGERS

"Mushroom Reef" lies 0.4 miles offshore (Lat. 57° 19' 1565m. Long. 154° 47' 675m.) and bares about 13 feet at M.L.L.W. (Vol. I. Pos. 118b-119b, M/S).

0.4 miles north of the middle headland of Cape Middle a group of rocks lie about 200 meters offshore. The rocks are located by positions 1b, 2b, and 3b, Vol.I, M/S and the least water found is shown on the hydrographic sheet.

Tombstone Rock is 99 feet high and lies about ¾ of a mile west of the middle headland of Cape Middle (Lat. 57° 21' 21.6m. Long. 154° 49' 459.1m.).

Outer Seal Rock is 89 feet high and lies about 2 miles west of Cape Ikolik (Lat. 57° 18' 35m. Long. 154° 50' 725m.). The triangulation station on this rock is △ Sail 1929. 125 feet on T-4575

Inner Seal Rock is 141 feet high and lies about ⅛ of a mile west-southwest of Cape Ikolik (Lat. 57° 17' 230.2m. Long. 154° 48' 472.5m.) The triangulation station on this rock is △ Whale Rock 1919 but is commonly known as Lighthouse Rock.

All of the shoreline, with the exception of that part along Middle and Gurney Bays, is rocky.

GEOGRAPHIC NAMES

Mushroom Reef was so named because of it's flat-topped, mushroom appearance . See descriptive report to accompany Topographic Sheet P.

The name of Cape Middle was assigned to the promomotory north of Cape Ikolik. This was previously designated by "middle headland" and "northerly headland" given to it's two most prominent points. See descriptive report to accompany Topographic Sheet P.

The large bite between Cape Middle and Gurney Bay was called Middle Bay. See descriptive report to accompany Topographic Sheet P.

The name, Gurney Bay, was assigned by a previous survey party. ?

Approved:

R. R. Perkins.

Respectfully submitted,

Clarence A. George.

Clarence A. George.

Hydrographic Sheet No. 21.

Notes by Chief of Party:

The principal dangers in the approach to Cape Ikolik are a group of rocks known as Seal Rocks. The group is made up of the following rocks:

TOMBSTONE ROCK is a square looking rock 99 feet high which resembles a tombstone. There is a low rock a few yards north of it which from some angles appears as a foot stone.

OUTER SEAL ROCK is 89 feet high and looks very much like a sail from the distance. The summit of the rock was located by triangulation and known as station Sail. There is a small herd of sea lions on the rock in 1929.

INNER SEAL ROCK , 141 feet high has the appearance of a light-house. It has been called both "Whale Rock" and "Lighthouse Rock" in the past. It was called "House" on hydrographic sheet No.7.

All of the rocks come up out of deep water and can be approached close to. The Coast Pilot states that foul ground is reported to extend about ½ mile outside Outer Seal Rock. No such foul ground was found in the survey of 1929.

ANCHORAGES Good anchorage in about 10 fathoms, sheltered from north through east to southeast, can be had in the entrance to Gurney Bay. The SURVEYOR lay at anchor here very comfortably during an easterly gale. Small craft can anchor closer in and obtain excellent shelter.

MIDDLE BAY appears to afford a good anchorage and would probably give fair shelter in northwest weather. The SURVEYOR never anchored in this bay.

This sheet forms the southerly limit of the SURVEYORS' work during the season of 1929.

Several of the topographic signals were permanently marked.

R.R. Lukens.

R.R.Lukens,
Chief of Party.

Statistics for Sheet, Field No. 21.

Motor Sailer.

Day	Vol.	St. Mi.	No. Pos.	Sdgs.
a	I.	16.5	88	304
b	I.	26.4	129	435
c	I.&II.	27.6	105	450
		70.5	322	1189

Launch No. 3.

Day	Vol.	St. Mi.	No. Pos.	Sdgs.
a	III.	24.5	106	438
b	III.	16.5	79	251
		41.0	185	689

Totals.

St. Mi.	No. Pos.	Sdgs.
111.5	507	1878.

List of Signals on Sheet, Field No. 21.

Hydro. name.	Location.
Al	Topographic signal, Sheet P.
As	" " " "
Bad	" " " "
Bite	" " " "
By	" " " "
Can	" " " "
Cat	" " " "
Daw	" " " "
De	" " " "
Dog	" " " "
Dune	" " , Topo. Sheet #3781.
El	
Fat	
House	Whale(Lighthouse) Rk. 1919.
If	Topographic signal, Sheet P.
Ik	" " " "
-	Ikolik 1919.
In	Hydro. signal. Plotted from Boat Sheet.
Kik	Topographic signal, Sheet P.
Ko	" " " "
Le	" " " "
Lie	" " " "
Lit	" " " "
Luk	" " " "
Me	" " " "
-	Middle 1919.
Nit	Topographic signal, Sheet P.
Oh	" " " "
Out	" " " "
Pet	" " " "
-	Pin 1919
Po	Topographic signal, Sheet P.
Pot	" " " "
Pro	" " " "
Reef	" " " "
-	Sail 1919.
Say	Topographic signal, Sheet P.
See	" " " "
Sir	" " " "
So	" " " "
Stone	Tombstone Rk. 1919.
Ta	Topographic signal, Sheet P.
Tab	" " " "
The	" " " "
Tin	" " " "
Top	" " " "
Tuf	" " " "
You	" " " "
Wen	" " " "

Section of Field Records.

ECM

February 7, 1930

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 4953

Locality: Kodiak I. (Cape Middle to Cape Ikolik) Alaska

Chief of Party: R. R. Lukens, in 1929
Plane of reference is mean lower low water, reading
2.4 ft. on tide staff at Uyak
ft. below B. M.

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 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.

Paul C. Whitney

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-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON March 18, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4953

Halibut Bay to Cape Ikolik, Kodiak Island, Alaska

Surveyed in 1929

Instructions dated March 14, 1929 (SURVEYOR)

Chief of Party, R. R. Lukens.

Surveyed by R. R. L. and C. A. Egner.

Protracted and soundings plotted by C. A. George.

Verified and inked by J. Fleming.

1. The work conforms to both the Hydrographic Manual and to the specific instructions.

2. A good junction was effected with the survey of 1920 (H. 4148) and the contemporary survey, H. 4954.

   The junction with the offshore survey will be taken up when that sheet is reviewed.

3. There are no important problems presented by this sheet. The bottom is smooth and in general no abrupt slopes are noticed.

4. Additional work is desirable, however, between Mushroom Reef and the shore and in the vicinity of △ Soil for about 1/2 mile to the southwestward of this rock. (Note the shoaling in depths here.) It is significant that the Coast Pilot (Alaska, Part II, page 152) speaks of foul ground as existing about 1/2 mile off Outer Seal Rock. This work can be done when the surveys are extended to the southward.

5. Reviewed by A. L. Shalowitz, March 1930.

Approved:

K. T. Adams

Chief, Section of Field Records (Charts)

H. S. Borden

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

Section of Field Records

Report on H-4953 — Surveyed in 1929

Chief of Party - R.R. Lickens — Surveyed by - R.R.L. and C.A. Egner

Protracted by - C.A. George - Soundings by — C.A.G.

Verified and inked. J. F. Fleming

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(1) The records conform to the requirement of G.S.

(2) The plan and character of the development fulfills the requirements of G.S.

(3) Sounding line crossings are satisfactory

(4) The shoaler depth curves cannot be completely drawn.

(5) Field plotting was completed to the extent prescribed in G.S.

(6) None of the work had to be done over

(7) Junctions with adjacent sheets on the north are satisfactory. There is no sheet on the south as this is the end of the work for 1929. — The sheet on the west of this had not been received at this writing

(8) Further surveying is not required in the area covered by this sheet

(9) There appears to have been some difficulty in identifying signals and reading angles and quite a number of soundings are plotted on time and course

10 Concerning the problem of the fix at pos. 36-b the following is deduced:—

The fix is given as {LE / SIR / YOU — Note that from the boat position at position 35 'Oyou' is the most seaward signal and seems to stand out beyond the headland at 'O say'

As the boat moved to pos. 36, 'Big you' appeared to move inshore and now has a background formed by the headland upon which 'O say' is situated While 'O say' now becomes the most seaward signal (apparently) It is thought 'O say' was thus mistaken for 'O you' at pos. 36

Accordingly the original angles and revised fix was used in replotting the position - the result was very satisfactory both as to time and direction (it being assumed that the intention was to pass Westward to the South of △ Tombstone. The replotting also rounds out the 25-fathom curve which before intended more Eastward.

(11) The sudden change in direction of the sounding line at 45-6 seems is questioned.
The record has no note on this change of direction.
The boat sheet shows the change but there is not good agreement between the two sheets here.
It seems to be another case of wrong Signal but several tests did not bring out any logical fix.
The soundings (28 fms) at 46-6 do not agree with the (26 fms) at 84-6
It is thought that the soundings between pos. 45 - 47 showed be plotted on a straight line between these two positions.
Note in the record that the right angle was changed at Pos. 45-6
The original angle was probably 53°-45'

(12) Note the absence of time intervals between soundings in GUITNEY Bay.
Apparently the field plotter placed absolute dependance upon the boat sheet plotting.
Pos. 31-6 is erroneously plotted on the boat sheet,
The smooth sheet pos is likewise erroneously plotted.

(13) OLuk appears to be a small Island on Topo. 4483 This was not shown on smooth or B.S.

(14) The low water line was modified to include the rock awash at OEL See shore line at that point 3781

(15) Several rocks awash were transferred from T. 4483 to this sheet in the office

(16) No unusual conditions were noted thruout the verification

(17) the work is considered 'Very Good'

Respectfully Submitted
J Fleming

MAR. - 13 - 1930

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO. 4953

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. 21.

REGISTER NO. 4953

State ~~Southwest~~ Alaska.

General locality Kodiak Island.

Locality Halibut Bay ~~Cape Kiddle~~ to Cape Ikolik.

Scale 1 : 20,000 Date of survey September, 1922.

Vessel Str. SURVEYOR. (Motor Sailer and Launch No. 3).

Chief of Party R.R. Lukens.

Surveyed by R.R. Lukens, and C.A. Egner.

Protracted by C.A. George.

Soundings penciled by C.A. George.

Soundings in fathoms ~~feet~~

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by J. Fleming

Verified by J. F. MAR - 14 - 1930

Instructions dated March 14, 1922.

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1929

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

AND REFER TO No. 11-DRM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON March 18, 1930.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4953

Halibut Bay to Cape Ikolik, Kodiak Island, Alaska

Surveyed in 1929

Instructions dated March 14, 1929 (SURVEYOR)

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5. Reviewed by A. L. Shalowitz, March 1930.

Approved:

Chief, Section of Field Records (Charts)

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

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4953

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

Number of positions on sheet	507
Number of positions checked	158
Number of positions revised	6
Number of soundings recorded	1878
Number of soundings revised	77
Number of signals erroneously plotted or transferred	NONE

Date: March 14th 1930

Cartographer: J. Fleming