5076

Diag. Cht. No. 8502-2, 8556-1

Form 504
Ed. June, 1928

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

State: Alaska

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. 22 5076

LOCALITY

Kodiak Island

~~Ayakulik to Low Cape~~

Low Cape to Ayakulik I.

1930

CHIEF OF PARTY

F. H. Hardy, H.& G. Engr.

U. S. GOVERNMENT PRINTING OFFICE, 1928

5076

Form 537
Ed. Sept., 1929

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

REG. NO. 5076

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. 22

REGISTER NO. 5076

State ALASKA.

General locality Kodiak Island.

Locality ~~Ayakulik Island to~~ Low Cape to Ayakulik I.

Scale 1:20,000 Date of survey July - August, 19 30

Vessel Str. SURVEYOR.

Chief of Party F.H.HARDY.

Surveyed by C.D.MEANEY, R.J.SIPE.

Protracted by C.A.GEORGE.

Soundings penciled by H.F.GARBER.

Soundings in fathoms ~~feet~~

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated April 1-st, 1930., 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1929

DESCRIPTIVE REPORT

to accompany

Hydrographic Sheet, Field No.22

Str. SURVEYOR. F.H.HARDY, Com'd'g.

Scale 1:20,000.

DATE OF INSTRUCTIONS.

The work was done in accordance with Instructions dated April 1-st, 1931.30

LIMITS.

The sheet comprises the inshore hydrography from Ayakulik Island to Low Cape. Beginning about 0.8 miles south of Ayakulik Island with a junction with Field Sheet No.21, it extends southward toward Low Cape to a union with Field Sheet No.23. The hydrography extends offshore a distance of about 4 miles, joining the ship work on Field Sheet No.61.

CONTROL.

Control was established by planetable traverses between triangulation stations. No appreciable closing error was found in the topography, (see descriptive report to accompany Topographic Sheet "B".)

TIDE GAUGE.

Automatic Tide Gauge No.212 at Lazy Bay was used in the reduction of all sounding records without adjustment.

SURVEY METHODS.

The usual survey methods as prescribed in the Hydrographic Manual were employed. The SURVEYOR, Launch WILDCAT, Motor Sailer, and Launch No.3 were all used. Handlead was used for all depths up to about 10 fathoms. For greater depths a power driven sounding machine with a 20 pound lead was used. Compass courses were steered on the SURVEYOR and WILDCAT, while on the smaller launches ranges were used when available. All registering sheaves were tested and found correct.

DANGERS.

This area is generally free from dangers. Between Signal Kid and triangulation station TUNDRA a rocky spit makes out about 250 meters offshore. Between Signal Bug and triangulation station SANDY the beach is boulder-strewn and several rocks are exposed at low tides, these however do not extend as far as 200 meters offshore.

(continued).

There is also a rocky spit extending about 250 meters offshore near signal Dav. From Signal Cal southward, the beach is rocky for about 300 meters offshore. The offlying rocks in the area off Low Cape were located by hydrography on Field Sheet No.23.

SHOALS.

#1 At Lat.57-11-165m.and Long.154-35-140m.there is a shoal with a least depth of 8¾ fathoms.

#2 At Lat.57-10-320 to 490 m.and Long.154-35-865 m. there is a shoal with a least depth of 10 fathoms.

#3 At Lat.57-09-1600 m.and Long. 154-35-890 m.there is a shoal with a least depth of 9½ fathoms.

#4 At Lat.57-07-450 m. and Long. 154-34-70 m.there is a shoal with a least depth of 8¾ fathoms.

#5 At Lat. 57-03-260 m.and Long. 154-36-410 m.there is a shoal with a least depth of 9½ fathoms.

#6 At Lat.57-02-1800 m.and Long.154-35-70 m.there is a shoal with a least depth of 8 fathoms. Also 7f. 170 m. North

#7 At Lat.57-01-1500 m.and Long.154-33-10 m.there is a shoal with a least depth of 7¼ fathoms.

#8 At Lat.57-01-1320 m.and Long.154-33-~~1000~~ 600 m.there is a shoal with a least depth of ~~0~~ 8½f. fathoms.

#9 At Lat.57-01-~~950~~ 932 m.and Long.154-39-860 m.there is a shoal with a least depth of 16 fathoms. Also 15 fms on H. 5089. JWW.

DISCREPANCIES.

The following discrepancies were noted in the plotting of the soundings.

#10 On position 210 c,M/S, 7 fathoms;between 88 -89c, M/S, there is 9 fathoms. 57-03+ 154-35+

#11 On 98f. M/S, 13 fathoms, between 68-69g,M/S, there is 15 fathoms. 11 fms, 57°05.9', 154°36.3'. JWW. 57-05.8 154-36.4

#12 On 51 h,M/S,12 fathoms; between 97g-98g,M/S,10 Fms. 57-01.3 154-33.9

#13 On 154j,M/S-8¾ Fms;between 49e-50e,M/S - 10 Fms.

#14 On 51 h,Launch #3 - 15 Fms.This is among 12 and 13 fathoms. 56-59.6 154 35.4

#15 On 62c-63c-64c,Launch #3,kelp is reported. On August 5, 1930, M/S reports no kelp in this area. 57-03.2 154-36.5

#16 On position 63 c,Launch #3 shows 19 fathoms among 12 and 13 fathoms.

The shoaler sounding was plotted in each instance.

Recommend Kelp be shown on T-H.

CHANNELS.

Ayakulik River - See descriptive report to accompany Topographic Sheet "B". No sounding was attempted by the hydrographic parties.

M.S - Blue.
Weldcat - Green
launch 3 - Red (Roman case letters)
Ship - Red- Capital letters

Positions of
Motor Sailor - Blue.
Weldcat - Green
Launch -3- Red (Roman case letters)
Ship - Red- Capital letters
approved + forwarded
J.H. Hardy

Respectfully submitted,

Clarence A. George

Clarence A.George,
Jr. H.&.G.E. C&GS.

STATISTICS FOR HYDROGRAPHIC SHEET #22.

Date.	Day.	Vol.	No.of Sdgs.	No.of Pos.	St.mi.of Sdg.lines.	Boat Used.
7/21/30.	A	1	258	43	20.0	SURVEYOR
7/22/30.	B	1	62	11	5.6	"
7/9/30	a	2	241	103	22.2	WILDCAT.
7/11/30.	b	2	334	188	34.4	"
7/12/30	c	2	72	31	4.6	"
7/15/30	d	3	456	246	37.6	"
7/16/30	e	3&4	442	237	39.2	"
7/17/30	f	4	126	62	10.6	"
7/19/30	g	4	322	139	21.3	"
7/1/30	a	5	308	79	15.2	Motor Sailer.
7/21/30	b	5	327	110	23.4	"
7/22/30	c	5&6	527	215	39.1	"
7/24/30	d	6	339	135	20.4	"
7/25/30	e	6&7	500	209	25.6	"
8/2/30	f	7	386	127	27.6	"
8/5/30	g	7&8	230	98	12.7	"
8/6/30	h	8	144	55	8.6	"
8/11/30	j	8	469	157	25.5	"
7/1/30	a	9	429	114	28.4	Launch #3.
7/21/30	b	9	409	113	24.6	"
7/22/30	c	10	213	64	20.0	"
7/25/30	d	10	298	99	17.0	"
TOTALS:-			6892	2635	483.7	

LIST OF SIGNALS ON HYDROGRAPHIC SHEET # 22.

HYDROGRAPHIC NAME.	LOCATION.
Bluff.	Bluff, 1930.
Flat.	Flat, 1930.
Low.	Low Cape 2, 1930.
Mud.	Mud, 1930
Oval.	Oval, 1930
San.	Sandy, 1930
Tun.	Tundra, 1930
Yak.	Yak2, 1930
Ug.	Topo Sheet "A".
Vox.	" " "
Pop.	" " "
Lib.	Topo Sheet "B".
Er.	do.
Ty.	do.
Sade.	do.
Hut.	do.
Lik.	do.
Spit.	do.
Bar.	do.
Aim.	do.
Can.	do.
Dub.	do.
Long.	do.
Peg.	do.
Ray.	do.
Sok.	do.
Tin.	do.
Zee.	do.
All.	do.
Boy.	do.
Kid.	do.
Bug.	do.
Rat.	do.
Dog.	do.
Sad.	do.
Zip.	do.
Pal.	do.
Sod.	do.
If.	do.
To.	do.
Dav.	do.
Stone.	do.
Hump.	do.
Cal.	do.
Van.	do.
Mug.	do.
Bo.	do.
Cap.	Topo Sheet "C".

cac

May 6, 1931

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
10 volumes of sounding records for

HYDROGRAPHIC SHEET 5076

Locality **Low Cape to Ayakulik Island, Kodiak I., S. W. Alaska**

Chief of Party: **F. W. Hardy, in 1930**
Plane of reference is **mean lower low water, reading**
3.6 ft. on tide staff at **Lazy Bay**
14.2 ft. below B. M. **1**

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.

H. A. Marmer

Acting Chief, Division of Tides and Currents.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5076

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

Number of positions on sheet	2635
Number of positions checked	785
Number of positions revised	37
Number of soundings recorded	6892
Number of soundings revised	315
Number of signals erroneously plotted or transferred	✓

Date: May 29, 1931

Cartographer: Harold W. Murray

Section of Field Records
Report on H-5076
Low Cape to Ayakulik I., Alaska.
Instructions dated April 1, 1930.

Chief of Party – F. N. Hardy
Surveyed by – C. D. Meaney, R. J. Sipe
Protracted by – C. A. George
Soundings plotted by – H. F. Garber.
Ver. & Inked by – Harold W. Murray

1. The records conform to the requirements of the hydrographic manual.
2. The plan and character of development fulfill the requirements of the Hydrographic Manual.
3. The plan and extent of development satisfy the specific instructions.
4. The sounding line crossings are adequate and satisfactory.
5. The usual depth curves can be satisfactorily drawn with the exception of the 1 and 2 f. curve inshore.
6. The protracting was excellent, the plotting of

soundings fair. It seems that little or no attention was given to the spacing of soundings with uneven time intervals.

7. Junctions. The junction on the south with H-5088 and on the north with H-5048 is satisfactory with the exception of a 20f depth in lat. 57°12', long. 154° 38.5. Agreement inshore is within ½ fathoms.

8. The ship (Surveyor) obtained 2 days of echo soundings. Vertical casts are good. Agreement with adjoining lines is good according to the curves with the exception of 2 3-fathom discrepancies of 12A and 30A day in lat. 57°05', long. 154°37'

9. The bottom is irregular and full of shoals in the vicinity of the 10-fathom curve. The field party has carefully enumerated several shoals & discrepancies. Minor shoals encircled by curves are conspicuous and need not be referenced.

10. Shoals & discrepancies:-

a. Lat. 57°09.3, long 154°35.8; least depth of 11f.

b. " 57°06.7, " 154°35.2; " " " 11f.

c. " 57°05.9, long 154°36'; least depth of 11f.

In item #11, the field party records a discrepancy in this vicinity. However, if a 14 f curve is drawn a distinct shoaling is apparent tho the least depth of 11 f may or may not be a discrepancy.

d. Lat. 57°05.3, long. 154°35.6; least depth of 13 f. also a 12 f and 11 f to the south, lat 57°04.8 and 57°04.3 respectively.

e. Lat. 57°05', long 154°~~36.4~~ 37' group of three 14 f depths.

f. " 57°03.5, " 154°36.4; least depth of 11 f. also a 11 f. depth, 850 m. SE.

g. Lat. 57°02.4, 154°36', least depth of 11 f. also a 12 f depth 900 m. south.

h. Lat 57°01.8, long 154°35'; least depth of 11 f.

i. " 57°~~00~~ 01', " 154°36.5; " " " 12 f.

j. " 57°00.4, " 154°36.2; " " " 11 f.

k. From lat. 57°03' southward in long 157°37' to 39', the bottom is particularly irregular with many small humps or mounds.

11. The sheet is well surveyed and numerous investigations made by the field party. An additional line, however, may have been run in long. 154°38.2.

12. No comparisons were made with previous surveys since this area has never been surveyed before.

13. Trouble was experienced in checking positions in the southwest because of distortion. The amount varies from 30 to 60 meters, the greater difference is particularly present in the shoals. The direction affected is from S.E to N.W. beginning at long 154°36' and extending to lat. 57°02' at the western limit.

14. Respectfully submitted: Harold W. Murray
May 30, 1931

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 5076.
Low Cape to Ayakulik I., Kodiak I., Alaska.
Surveyed in 1930.
Hand lead, machine and fathometer soundings.
Instructions dated April 1, 1930. (Surveyor).

Chief of Party - F. H. Hardy.
Surveyed by - C. D. Meaney, R. J. Sipe.
Protracted by - C. A. George.
Soundingsplotted by - H. F. Garber.
Verified and inked by - H. W. Murray.

1. The records conform to the requirements.

2. The plan, character and extent of the survey satisfy the general and specific instructions.

3. No general system of cross lines was used. In the more closely developed areas the lines cross fairly well, most of the discrepancies probably being due to the lumpy and uneven character of the bottom.

4. The information is sufficient for completely drawing usual depth curves except in a few places close inshore such as the area just north of Lat. 57°10'.

5. The junction with H. 5048 on the north is satisfactory and the soundings agree well with the exception of one line near the 20 fathom curve.

The off shore junction with H. 5089 will be reported in the review of that sheet when it is completed.

The junction on the south with H. 5088 is satisfactory and the agreement good.

There are no previous surveys of this area.

6. The protracting was accurately done by the field party, but some of the positions in the southwest corner of the sheet do not check closely at the present time, probably due to distortion of the sheet. The soundings were fairly well plotted except that irregular time intervals between positions were not closely adhered to.

7. Character and scope of surveying. -

The 300 meter spacing, called for by instructions, has generally been maintained, but ridges and shoal indications are so numerous that this system of spacing seems hardly close enough to portray the conditions.

Considerable development was done, but in the area between the 10 and 20 fathom curves the bottom is very lumpy and irregular and soundings indicating possible shoalings occur so frequently that an enormous amount of development would have been needed to thoroughly develop the area.

The survey is considered excellent as far as it goes, but hardly close enough.

H. 5076.

8. Whilt is is doubtful if additional lead line work is necessary in this area as no depths which are a menace to navigation were found, but there are a number of soundings which would bear further investigation and in some places, where cloe examinations were not made, there is no assurance that shoaler depths do not exist.

9. Reviewed by R. L. Johnston - June 11, 1931.

Approved: A. M. Sobieralski. (Signed)