6736

6736

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
L. O. Colbert, *Director*

State: Alaska

DESCRIPTIVE REPORT

121-39 Field

Topographic / *Hydrographic* } *Sheet No.*

LOCALITY

Bering Sea

North ~~coast~~ of Unimak Island

1939-40

CHIEF OF PARTY

E. W. Eickelberg & G. L. Bean

U. S. GOVERNMENT PRINTING OFFICE: 1931

-37
Dec., 1930

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H6736

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. 121-39 (Project HT-231)

REGISTER NO. H6736

State Alaska

General locality Bering Sea

Locality North ~~coast~~ of Unimak Island

Scale 1:120,000 Date of survey 9/18/39 to 8/19/40

Vessel Ship GUIDE

Chief of Party E. W. Eickelberg and G. L. Bean

Surveyed by Personnel of Shio Guide

Protracted by E. H. Bernstein

Soundings penciled by E. H. Bernstein

Soundings in fathoms ~~feet~~

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by None

Inked by C. E. Dennis 9/19/42

Verified by do do

Instructions dated March 8, 1939. Letter No. 22 19-AB, 1995 GU-1.

Remarks: Smooth plotted in Oakland Processing Office in May 1942. Vertical casts not recorded in sounding volumes and not available at O.P.O.

U. S. GOVERNMENT PRINTING OFFICE: 1933

DESCRIPTIVE REPORT H6736

to accompany

HYDROGRAPHIC SHEET

No. 121-39 Field.

This report was prepared in the Oakland Processing Office upon completion of the smooth sheet.

Date of Instructions:

Instructions, Project HT- 231, letter No. 22-AB, 1995 GU-1, dated March 8, 1939.

Survey Methods:

All control is by R.A.R. All stations were sono-buoys. A fair percentage of positions are based on three-station returns. All lines are well fixed except the short cross line on "J" day. This line is not particularly needed and preference should be given to the soundings on the lines it crosses. agreement is satisfactory

Dangers:

No dangers are revealed in the area covered by this sheet. The bottom is rather regular and even. Sounding lines are spaced at about 3000 meters. ✓

Junctions and Comparisons with other surveys:

Junction with hydrographic sheet H-5740 (1934) on the south-west is satisfactory and in good agreement. Junctions with other sheets of this project have not yet been determined pending plotting of the adjacent sheets. See review ✓

Statistics:

Total number of positions	813
Total number of soundings	16,726
Statute miles of sounding	1,676.9
Area, square statute miles	2,660.0

H6736

General:

Appended is a list of buoy positions and an abstract of velocity determinations.

STATEMENT to accompany this Sheet:

The smooth sheet was prepared in the Oakland Processing Office by Messrs. R. W. Lowe and C.A. Chester who also plotted the buoy positions and drew the penciled time-distance curves. The velocity abstract was prepared by Lieutenant Commander S. B. Grenell. The plotting of the sheet and penciling of the soundings was done by Lieutenant Commander E. H. Bernstein.

The plotting and processing of the completed sheet has been inspected and is approved.

E. H. Bernstein
Lieut.-Commander
Officer in Charge
Oakland Processing Office

Addenda:

There are no vertical casts recorded in the sounding volumes. These are probably given in the fathometer report for the season with a tabulation of the fathometer comparisons.

The fixed visual position work, "A" and "B" days shown on the boat sheet running westward from Cape Sarichef was plotted on one of the 1939 sheets of the Ship Guide. This work is not covered by sounding records on hand at the Oakland Processing Office at this date. H-6464 (1939)

No notes by the field party covering this descriptive report were available at the Oakland Processing Office.

BUOY DATA

NAME	DATE PLANTED	DATE PICKED UP	
CAT	Sept., 17, '39	None recorded.	
RIL	Aug., 27, 1939	None recorded.	Revisited September 13.
BOY	July 1, 1940	None recorded.	Dead July 23. Last recorded date of visit Aug. 31.
CAT	July, 2, 1940	None recorded.	Visited Sept. 13.
EASY	July 14, 1940	None recorded.	Aug. 19, buoy shifted to new position; buoy changed position during storm of Aug. 1. Use new position beginning with Aug. 13 or "M" day on Sheet 81 and "F" day on Sheet 121. Use old position through July 30 including "L" day Sheet 81 and "E" day Sheet 121.
GIN	Aug. 10, 1940	September 2.	
HYPO	Aug. 14, 1940	August 19.	

GEOGRAPHIC POSITIONS
of
R. A. R. BUOYS.

Name	Latitude Longitude	D.M. on 1:120,000.	D.M. on 1:80,000.
CAT	54-30	1537.5 (8.6)	(12.9)
1939	164-40	485.7 (410.7)	
RIL	55-00	911.0	
1939	164-20	494.0	
BOY	55-00	613.3	55-00 920.0
1940	163-40	798.7	163-45 531.4
CAT	55-20	683.0	55-20 1025.0
1940	163-10	126.0	163-10 188.7
EASY	First position		
1940	55-10	1138.1	55-15 547.5
	163-30	~~688.8~~ 686.6	163-35 368.0
EASY	Second position		
1940	55-10	1157.1	55-15 576.0
	163-30	~~704.8~~ 635.9	163-35 292.0
GIN	54-10	555.2 (990.8)	
1940	165-50	464.2 (441.6)	
HYPO	54-50	311.2 (1234.9)	54-50 466.9 (692.8)
1940	164-30	562.2 (329.6)	164-35 174.5 (494.4)

Velocities computed from bomb positions lying between two sono-buoys: Dist. between buoys/ Sum of seconds, both buoys equals Velocity.

→ H 6791

Sheet 81-40 (Scaled from boat sheet).

Date	Pos. No.	Depth fms	Bomb No.	Buoys	Scaled dist. m	Sum of seconds	Velocity m/s (SD/S)		
9/13	23R	25	14	Cat-Fox	14600X8	79.62	1468	m/s	Deep
	81R	32	42	" "	1471 X 8	79.91	1473		"
	83R	31	43	" "	14700 X 8	79.74	1474		"
7/25	56H	24	25	Cat-Boy	6885 X 8	37.13	1482	1484.8	Mod.
	63H	23	29	Cat-Boy	6875 X 8	37.25	1477	1478.1	shoal
	65H*	23	30	Easy-Boy	3440 X 8	18.47	1490	1492.1	Shoal
7/14	219F	31	103	Easy-Dog	8002 X 8	43.59	1469	1471.5	Deep to
	220F	30	104	" "	7895 X 8	43.09	1466	1467.7	mod.
	221F	28	105	" "	7827 X 8	42.76	1464	1462.8	
							1474.3	1476.1	

Mean of 9 readings above 1473.7 m/s

From computed theoretical velocities:

Mean in depths of 30 fms. plus	1468.6
Mean in depths of 30 fms. minus	1476.6

Mean 1472.0

Easy - Boy - scaled d = 27,520; comp d = 27559 — $\frac{27,559-27520}{27,520}$ = +0.0014 · correction factor

Easy - Dog — scaled = 62,288; comp = 62,421 — $\frac{62,421-62288}{62,288}$ = +0.0021 " "

Cat - Boy — scaled = 54,936; comp = 55,014 — $\frac{55,014-54,936}{54,936}$ = +0.0014

55° 15' 163 55 to 55° 00 164 30 — scaled = 46,400; comp = 46,471 — $\frac{46,471-46,400}{46,400}$ = +0.0011

To d on 55°15 — scaled = 74,112; comp = 74,197 — $\frac{74,197-74112}{74,112}$ = +0.0011

25' ¢ — scaled = 46,312; comp = 46387 — $\frac{46,387-46,312}{46,312}$ = +0.0016

+0.0014 average

55 15 to 55 00 = (58′)(8)m = 46400

163 55 to 164 30

true

d 70′ on 55°15 = 9264 74112 74197 85m. short

ϕ 25′ 5789 46312 46387 75m short

Vol	Pos.		Bomb	Time secs.	Distance scaled	1/10	VELOCITIES BOY	CAT	DOG	EASY	
1	24B	7/10/40	8	16.33	2979	80.5	1459	1460.1			
	27B		9	17.64	3251	40	1473	1469.4			
2	4E	?	3	12.16	2192	2164*			1426*	~~1484~~	
	7E		4	13.69	39.5 2527	2495*			1460*	1484.0	
	11E		6	15.60	2932	2895* 88			1485*	1481.0	
	13E		7	16.97	3151	3115 05.5			1469*	1464.0	
	22E	?	9	(21.79)	4269	4228* 4037			(1552)*	1482.1	
			9	22.63	4143	85.5	1461	1479.6			
3	104E		43	19.37	3788	3747* 3561			(1548)	1470.7	
			43	24.67	4162	4532	(1350)				
	120E		49	9.91	1834	1818* 1809			1469	1460.3	
	122E		50	8.70	1614	1590* 1582			1462*	1454.7	
	125E		51	7.65	1443	1411* 1404			1476*	1468.2	
	130E		52	9.62	1836	1796* 1791			1493*	1489.4	
	132E		53	11.57	2147	2108* 2102			1460*	1453.4	
	136E	7/12/40	54	13.65	2556	2513* 3507			1473*	1469.3	
	138E		55	15.91	2975	2930* 2931			1472*	1473.8	
	141E		56	16.49	3056	3010* 3006.5			1460*	1458.6	
	143E		57	17.34	3235	3187* 3181			1470*	1467.6	
	145E		58	18.04	3342	3294* ~~3265~~ 3291			1462*	1859.4	
	147E		59	18.96	3533	2485* 3481			1472*	1468.8	
				44.66	8245	8237		1475 1475.5			
	150E		60	21.25	3959	3910* 3906.5			1472*	1470.7	
				16.02	2980	2947.3	1488	1484.6			
	170E		68	18.36	3473	3467.5	(1512)	1510.9			
				26.59	4865	4858		1466 1461.6			
	172E		69	20.14	3697	3690.5	1470	1465.9			
				24.57	4511	4504.5		1470 1466.7			
	177E		71	23.05	4264	4232.5	1480	1469			
	179E		72	18.43	3398	3394		1476 1473.2			
				24.76	4561	4550	1475	470.1			
	181E		73	16.38	3028	3024		1480 1476.9			
	189E		76	15.32	2815	2808		1470 1466.3			
	193E		77	19.47	3587	3580		1474 1471.0			
				23.15	4260	4251	1471	1469.0			
	198E		78	19.73	3634	3629	1473	1471.5			
	207E		81	17.99	3316	3309.5	1475	1471.7			
				25.99	4770	4762.5		1468 1465.9			
	86 F	7/14/40	39	10.87	1975	1995		1457 1468.2			
				16.40	3047	3009			XXXXX	1487	1467.8
9	10R	?	6	19.86	3932	3620		(1588) 1458.2			
				20.85	3872	3868	(1332)	1484.1			
	11R		7	19.50	3200	3599.5	(1314)	1476.7			
		9/13/40		21.47	4387	3956		(1632) 1474.0			
	14R		9	15.64	2896	2885	1480	1475.7			
				26.82	4957	4946		1479 1475.3			
	17R		11	12.84	2366	2369.5	1476	1476.3			
				32.38	5987	5972.5		1480 1475.6			

Mean each buoy 1473.4 1472.3 1470.3 1487.0

1. Mean all buoys (39 fixed positions) 1472.3
2. Mean of 12 theoretical bottom velocities 1472.0
3. Mean of 9 bet.-buoy determinations 1473.7

Weighted means of 1,2 & 3 (50 determ.) 1472.4

	Remarks	Decisions
1		U.S.G.B
2	For title	
3		
4		
5	Location of tide staff	
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27		

M 234

GEOGRAPHIC NAMES

Survey No. H6736

Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Bering Sea										1
Unimak I.										2
										3
										4
Cape Mordvinof										5
										6
										7
		Names underlined in red approved by L. Heck on 9/28/42								8
										9
										10
										11
										12
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										26
										27

M 234

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H6736

Records accompanying survey:

Boat sheets one.; sounding vols. (8).; wire drag vols. ....;

bomb vols. (2)..; graphic recorder rolls .....;

special reports, etc. .....

.....

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

Number of positions on sheet		613
Number of positions checked		0
Number of positions revised		0
Number of soundings recorded		16,726
Number of soundings revised (refers to depth only)		0
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		0
Topographic details	Time	0
Junctions	Time	8h
Verification of soundings from graphic record	Time	0

Verification by C.B. Pennis ..Total time 136.. Date 9/19/42

Review by ..... G.F. Jordan ..... Time .10.. Date 9/22/42.

FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H H6736
~~No. H~~

received June 9, 1942
registered August 4, 1942
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
26			
30			
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62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox

VBWK

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Rev. June 1937

TIDE NOTE FOR HYDROGRAPHIC SHEET

August 7, 1942.

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: Mr. H. R. Edmonston.

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 6736

Locality North of Unimak Island, Bering Sea, Alaska

Chief of Party: E. W. Eikelberg and G. L. Bean in 1939-40.
Plane of reference is mean lower low water.
1.0 ft. on tide staff at Cape Mordvinof
6.6 ft. below B. M. 1

Height of mean high water above plane of reference is 5.9 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY — REGISTER NO. 6736
Field No. 121-39

Alaska, Bering Sea, north of Unimak Island
Surveyed September 1939 to August 1940; Scale 1:120,000
Instructions dated March 8, 1939 (GUIDE)

Soundings: 312 Fathometer
Dorsey III "

Control: R.A.R. with sono-buoys

Chief of Party - E. W. Eickelberg, G. L. Bean
Surveyed by - Ship's Officers
Protracted by - E. H. Bernstein
Soundings plotted by - E. H. Bernstein
Verified and inked by - C. E. Dennis
Reviewed by - G. F. Jordan
Inspected by - H. R. Edmonston

1. Shoreline and Signals

This is an offshore survey, and no shoreline is shown. The control is by R.A.R., with sono-buoys.

2. Sounding Line Crossings

Very good.

3. Depth Curves

The bottom is very smooth, and only the 50-fm. curve is included.

4. Junctions with Contemporary Surveys

Very good junctions are made on the southwest with H-5740 (1934) and on the south with H-6464 (1939).

5. Comparison with Prior Surveys

With the exception of track lines there are no previous surveys in this area by this Bureau.

Four track lines, running from off Unimak Pass N. E. to Cape Newenham, cross the area of the present survey. The lines on H-3194 (1910) and H-3194 (1914) disagree from 2 to 5 fathoms with the present survey but the line on H-3194 (1915) agrees favorably. There are 2-fm. differences with H-3409 (1912). These lines

cross smooth bottom with gradual gradient from 52 fm. to 65 fm. on the present survey. As the present survey is adequate, these track lines should be disregarded.

6. Comparison with Chart 8860 (Latest print of 2- 3-42)
Chart 8802 (Latest print of 8-31-42)

a. Hydrography

The area of the present survey has been charted in part from track line surveys and from overlapping surveys previously discussed. A few additional soundings from other sources, charted since the first Standard of 1909, differ from 2 fm. to 10 fm. with the present survey and should be disregarded.

Chart 8802

(a) A 52-fm. sounding charted at Lat. 55°19', Long. 165°06', actually 57 fm. on H-3409 (1912), should be disregarded.

(b) A 50-fm. sounding charted at Lat. 55°11', Long. 165°02', actually 58 fm. on H-3409 (1912), should be disregarded.

b. Aids to Navigation

None.

7. Condition of Survey

a. Sounding Records

Satisfactory.

b. Descriptive Report

The descriptive report was written by the Oakland Processing Office without notes. Neither a record of vertical casts nor an explanation of establishment of RAR control is available. However, unregistered overlapping surveys of 1940 may contain these data.

c. Field Plotting (Processing Office)

Satisfactory.

8. Compliance with Instructions for the Project

Satisfactory.

9. Additional Field Work Recommended

None.

10. Superseded Surveys

H-3194 (1910-1915) in part

H-3409 (1912) " "

Examined and approved:

Robert W. Knox
Chief, Surveys Section

F. S. Borden
Chief, Division of Charts

Z. P. Kaynor
Chief, Section of Hydrography

G. W. Rude
Chief, Division of Coastal Surveys

applied to cht. 8860 J.M.a. 11-5-42
" " " 8802 J.M.A. 11-13-42
Nully app. to cht 8860 extension 1/13/62 William H. Nell