

7936

Diag. Cht. No. 9302

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. EX-3151 Office No. H-7936

LOCALITY

State ALASKA

General locality BERING SEA

Locality ENTRANCE TO HOOPER BAY

194 51

CHIEF OF PARTY

G. L. Anderson

LIBRARY & ARCHIVES

DATE DECEMBER 7, 1951.

CS-343

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO.

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-7936 (1951)

Field No. EX-2151

State Alaska

General locality Bering Sea

Locality Entrance to Hooper Bay

Scale 1:20,000 Date of survey July 1951

Instructions dated 6 March 1951

Vessel U. S. Coast and Geodetic Survey Ship EXPLORER - Launch #1

Chief of party George L. Anderson

Surveyed by J. S. Morton

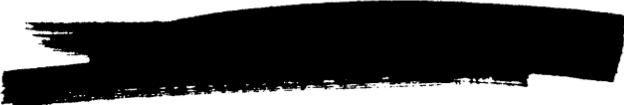
Soundings taken by fathometer, graphic recorder, ~~hand lead wire~~

Protracted by D. L. Campbell

Soundings penciled by R. E. Williams

Soundings in ~~fathoms~~ feet at ~~MLLW~~ MLLW

REMARKS: (and are based on a velocity of sound of 800 fms./sec.)


Statistics for Hydrographic Survey H- (1951)

Ship EXPLORER Project CS-343

Date	Boat	Day	ltr.	Volume	Positions	Statute Miles
------	------	-----	------	--------	-----------	---------------

1951						
29 July	Launch #1	a		1	130	39.1
30 July	Launch #1	b		1	<u>146</u>	<u>36.5</u>
				Totals	276	75.6

Total area - 6.2 square statute miles

Tidal Note

Tidal corrections to soundings were obtained from the predicted tides for Cape Romanzof - predicted tides at Kodiak minus 45 minutes and 0.8 the range. The tide gauge at Hooper Bay Village was not in operation during the time soundings were being taken. A comparison of the observed tides at the Hooper Bay station with predicted tides using Dutch Harbor and Kodiak as reference stations indicated that the use of Kodiak gave better values.

[REDACTED]

DESCRIPTIVE REPORT
to accompany
HYDROGRAPHIC SURVEY No.
Field No. EX-2151
Entrance to Hooper Bay
Bering Sea
Scale 1:20,000

1951

USC&GSS EXPLORER, Geo. L. Anderson, Comdg.

Surveyed by J. S. Morton

- A. Project No. CS-343, Instructions dated 6 March 1951.
- B. This is a reconnaissance survey for an anchorage at the entrance to Hooper Bay. Work on this survey was accomplished as time and personnel were available while the Ship was anchored in the vicinity during the construction of the Hooper Bay camp. The soundings were taken on 29 and 30 July 1951. ✓
- C. All sounding was accomplished with EXPLORER Launch No. 1, using 808 Fathometer No. 50. The fathometer was set for a speed of sound through water of 800 fathoms per second and, in accordance with the Director's letter of 21 June 1951 no correction was applied to soundings on account of any deviation from this standard velocity. ✓
- D. A portable automatic tide gauge was installed in the creek near Hooper Bay Village but it was not in operation at the time the soundings were being taken so the tide reducers were determined from the predicted tides for Cape Romanzof (Reference Station, Kodiak). A comparison was made between the observed tides at Hooper Bay Village and the predicted tides using Kodiak and Dutch Harbor as the reference stations and the indications are that the values obtained from the predicted tides at Kodiak are in better agreement with the observed tides - see attached graph. The reduced soundings indicate no error attributable to tides. A current station was occupied in the channel off station End. ✓
- E. The projection for the smooth sheet was made aboard ship. No shoreline is shown on the smooth sheet because the area was photo-inspected during the past season by Lt. Tonkel's party and controlled topography should be available in the near future. ✓
- F. The triangulation stations on this survey are the field positions obtained from Lt. Tonkel's Geodetic Party. The hydrographic and topographic stations (with the exception of Net) were located by triangulation, using the geodetic base FILCH-HOOPER, and the observations and computations were previously submitted as triangulation. All the hydrographic stations are temporary unmarked stations. Topographic station Chen was marked by Lt. Tonkel's party. The round of cuts locating signal Net are in the front of the sounding record. ✓

H. All soundings were taken with 808 Fathometer No. 50 using a tachometer set for a velocity of sound of 800 fathoms per second. Soundings were taken on the fast scale except that the fathom scale was used for a zig-zag line in the channel at the east end of the work where, because of the steep slope, difficulty had been experienced in following the sounding on the fast scale.

J. There are no prior surveys or large scale charts of this area, nor does this survey make junction with any other hydrography accomplished this season. The purpose of the survey was to determine the area suitable for an anchorage. It would have been desirable to determine the location of the channel that continued on to the east of the area surveyed and to determine the best approach to the anchorage from the northwest but time did not permit. Coming in to anchor the Ship encountered minimum depths of 21 ft. (at low water) over the ridges which seemed to parallel the beach about 2 to 2.5 miles offshore. This was on the approach bearing of 075° T. to Hooper Bay Village. (See Coast Pilot Notes submitted.)

N. The shoal south and east of position 67a bares at low water and apparently extends for a considerable distance in both directions. Signal Wet was a stake put in by the inhabitants of the village to mark the channel to the creek that flows along the east side of the village. The water gradually shoals from the 4 ft. north of signal End to approximately zero at the channel marker. There is deeper water in the creek up to and beyond the village. Currents up to 2 knots were observed in the channel south of End and when wind and current are opposed there are rips dangerous to small craft.

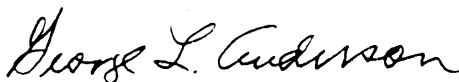
O. Coast Pilot information was furnished in a separate report, submitted 9 November 1951.

Respectfully submitted,


J. S. Morton, Comdr.

U. S. Coast & Geodetic Survey

Approved and forwarded:



George L. Anderson
Commander, C&GS
Comdg. Ship EXPLORER

GEOGRAPHIC NAMES

Survey No. H-7936

Name on Survey	On Chart No.	On previous survey No.	On U. S. quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
	A	B	C	D	E	F	G	H	
<u>Alaska</u>									1
<u>Bering Sea</u>								B.G.N.	2
<u>Hooper Bay</u>									3
<u>Hooper Bay</u>									4
									5
									6
									7
									8
									9
									10
<u>Cape Romanzof</u>								B.G.N.	11
									12
									13
									14
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									17
									18
									19
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									25
									26
									27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. ^{H-7936}.....

Records accompanying survey:

Boat sheets ..1..; sounding vols. .1...; wire drag vols.;
bomb vols.; graphic recorder rolls .1 ^{Env};
special reports, etc. 1. Smooth Sheet; 1. Descriptive Report.....
.....

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

Number of positions on sheet	275
Number of positions checked	1
Number of positions revised	1
Number of soundings revised (refers to depth only)	6
Number of soundings erroneously spaced	
Number of signals erroneously plotted or transferred	
Topographic details	Time
Junctions	Time
Verification of soundings from graphic record	Time

Verification by *S. L. Hansen*.....Total time 16... Date 1/18/52

Reviewed by *J. A. Winsmore*..... Time 2 hrs. Date 4 Febr. 1952

Ht. in
ft.
9

Comparison of Tides at Hooper Bay July - August 1951

8

7

6

5

4

3

2

1

0

-1

165th Meridian Time

03

04

05

06

07

08

09

10

11

12

13

14

15

16

17

18

19

20

21

31 July & 1 Aug.
30 July
29 July

29 July

30 July

31 July

1 Aug.

29 July

30 July

31 July

1 Aug.

1 Aug.

1 Aug.

30 July

29 July

31 July

29 July

30 July

31 July

1 Aug.

31 July

31 July

29 July

30 July

31 July

1 Aug.

Red From Kodiak (predicted) minus 45 min. 0.8 range factor.
Black From Dutch Hbr. (observed) plus 7 hrs. 2.0 range factor
Blue Observed at Hooper Bay

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7936

FIELD NO. EX-2151

Alaska, Bering Sea, Entrance to Hooper Bay

Project No. CS-343

Surveyed in July 1951

Scale 1:20,000

Soundings:

Control:

808 Fathometer

Sextant fixes on shore signals

Chief of Party - G. L. Anderson

Surveyed by - J. S. Morton

Protracted by - D. L. Campbell

Soundings plotted by - R. E. Williams

Verified and inked by - T. L. Janson

Reviewed by - T. A. Dinsmore, 4 February 1952

Inspected by - R. H. Carstens

1. Shoreline and Signals

No contemporary shoreline is available for this area. The origin of the signals is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated for this reconnaissance survey.

Depths through the axis of the natural channel range from 29 to 96 feet. The bottom is smooth.

4. Adjoining Surveys

There are no adjoining Surveys.

5. Comparison with Prior Surveys

There are no prior surveys of the area by this Bureau.

6. Comparison with Chart 9302 (Latest print date 10/1/51)

A. Hydrography

No information is charted within the area covered by the present survey.

B. Aids to Navigation

No aids to navigation are charted within the limits of the present survey.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

This reconnaissance survey is adequate to serve the purpose intended and no additional field work is required.

Examined and approved:

H. R. Edmonston

H. R. Edmonston
Chief, Nautical Chart Branch

H. Arnold Karo


H. Arnold Karo
Chief, Division of Charts

L. S. Hubbard

L. S. Hubbard
Chief, Section of Hydrography

W. M. Scaife

W. M. Scaife
Chief, Division of Coastal Surveys



Approval Sheet

EX 2151

The smooth sheet and records have been inspected by me and are approved.

George L. Anderson

George L. Anderson
Commander, C&GS
Chief of Party

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~

14 December 1951

Division of Charts: R. H. Carstens:

Plane of reference approved in
1 volume of sounding records for

HYDROGRAPHIC SHEET 7936

Locality Hooper Bay, Bering Sea

Chief of Party: G. L. Anderson in 1951
Plane of reference is mean lower low water
ft. on tide staff at
ft. below B. M.

about 5' range

Condition of records satisfactory except as noted below:

NOTE: These tide reducers were verified by means of tide predictions at Kodiak, Alaska with the following allowances for time and range at the working grounds.

Time of tide

-0 45 min.

Ratio of Range

0.8

E.C. McKay
Section
Chief, ~~Division of Tides and Currents.~~

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7936

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.