

6150

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. 11-36

State ~~Alaska~~ Aleutian Islands

LOCALITY

~~South side of~~ Unimak Id.

Dora Harbor and West Anchor Cove

193 6

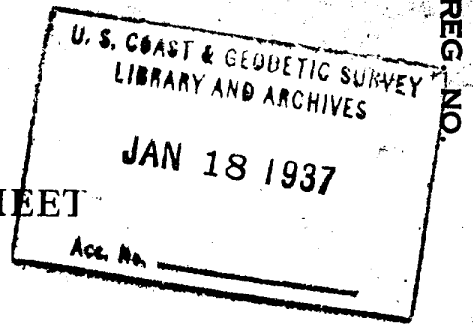
CHIEF OF PARTY

Jack Senior

6150

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 11-36

REGISTER NO. H-6150

State Alaska Aleutian Islands

General locality South side of Unimak Island

Locality Dora Harbor and West Anchor Cove

Scale 1:10,000 Date of survey August & September, 19 36

Vessel DISCOVERER

Chief of Party Jack Senior

Surveyed by Earle A. Deily, H. & G. Engr.

Protracted by O. B. Hartzog, jr., Aid and E. A. Deily, H. & G. E.

Soundings penciled by E. A. Deily, H. & G. Engr.

Soundings in fathoms ~~XXX~~ and fractions of ~~fathoms~~

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by _____

Inked by G. C. Mc Glasson

Verified by G. C. Mc Glasson

Instructions dated March 30, 19 36

Remarks: _____

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET 11-36

Dora Harbor and West Anchor Cove

South Side Unimak Island, Alaska

a. DATE OF INSTRUCTIONS:

The authority for the work embraced by this sheet is embodied in the Instructions of the Director to the Commanding Officer, Steamer DISCOVERER, dated March 30, 1936.

b. SURVEY METHODS:

The usual methods for hydrographic surveys with a ship's launch were used throughout the work. All signals were located by either triangulation or topography.

Hand lead soundings were in general carried out to the 10 fathom curve with a maximum spacing of 100 meters. An inshore line was run as close to the breakers or beach as possible. Another line was run as close to and outside this line as possible. The spacing of sounding lines was then increased gradually offshore to the 10 fathom curve.

Soundings with wire (machine soundings) were extended from the limit of hand lead soundings southward to latitude $54^{\circ} 40'$ N. In the vicinity of Bird Island the lines were carried slightly farther southward to extend the launch hydrography sufficiently offshore to permit the ship to take up the work. The wire soundings were run on lines spaced 200 meters.

As explained in the report accompanying hydrographic sheet 21-'36, every advantage was taken of favorable weather to develop the areas close inshore or those mostly exposed. As both sheets 21-'36 and 11-'36 were being done at the same time the work was alternated between the sheets,

it sometimes being impossible, due to weather and sea conditions, to work on one while possible on the other. Late in the season all of the work was concentrated on this sheet (No. 11-'36). Unfortunately weather conditions at the end of the season became so bad that it was impossible to complete the work at hand. This sheet will be completed in the next field season.

It will be noted that lines in the vicinity of Bird Island were run part on sheet 11-'36 and part on 21-'36. This is due to the fact that at certain places fixes to control the hydrography were only possible on one sheet. Those run on sheet 21-'36 are shown on the boat sheet 11-'36 in red ink.

Incompleted portions and places needing further investigation lying within the area surveyed on this sheet are as follows:--

1. The blank area eastward of Bird Island.
2. The least depth should be found at the $4\frac{1}{2}$ fathom shoal indication in latitude $54^{\circ} 42.1'$ N., longitude $163^{\circ} 16.5'$ W. There is a $3\frac{1}{2}$ fathom sounding shown on sheet H-2557 at this place.
*3 fms. 3.8 feet or $3\frac{1}{2}$ fms.
 4 fms.*
3. Two short split lines in latitude $54^{\circ} 41.8'$ N., longitude $163^{\circ} 16.2'$ W. would be advantageous in further delineating the end of the reef extending to the eastward.
4. Several split lines in latitude $54^{\circ} 40.4'$ N., longitude $163^{\circ} 13.8'$ W. would further develop the end of the reef extending off the rocky point on the west side of the entrance to West Anchor Cove and give additional work near the 12 fathom soundings on the line ~~41 n - 42 n~~.
5. The work necessary to develop the blank area in West Anchor Cove is self-evident.
6. The shoal in latitude $54^{\circ} 41.5'$ N., longitude $163^{\circ} 08.8'$ W. as indicated by the $3\frac{1}{2}$ fathom sounding on line 96p - 100p should be developed, as this is the principle danger indication in the more protected area in West

Anchor Cove.

7. Several short lines of soundings should be run in the vicinity of the $2\frac{1}{2}$ fathom sounding in latitude $54^{\circ} 41.8'$ N., longitude $163^{\circ} 09.1'$ W. to further develop this detached shoal.

22

c. DISCREPANCIES:

No discrepancies were found or adjustments made during the course of the work.

d. DANGERS:

The shore line on this sheet is fringed by a wide area of reefs and foul ground and should not be approached close-to.

The areas needing further development are discussed under section "b".

The ends of the reefs extending from both sides of Dora Harbor constitute the principle danger in this immediate area and should be given a good berth in entering. There is a prominent ^{bare 3' MLLW} sunken rock in latitude $54^{\circ} 41.7'$ N., longitude $163^{\circ} 15.9'$ W. This rock was located by the topographer. This place does not break at all stages of the tide and care should be exercised in passing.

There is a $3\frac{1}{2}$ fathom shoal indication in latitude $54^{\circ} 41.5'$ N., longitude $163^{\circ} 08.8'$ W. This constitutes the most important danger in West Anchor Cove. Further developing is necessary.

83 notified Jan 25-37
C.K.G.

Several 3 fathom soundings were gotten on the line 77g - 79g. These were in the approximate location of the $2\frac{1}{2}$ fathom detached shoal in latitude $54^{\circ} 41.6'$ N., longitude $163^{\circ} 07.7'$ W. on chart 8701. This area was developed on "r" day but nothing less found *than 2 1/2 fms. (see pgs. 25r to 26r)*

There is a small, semi-detached shoal in latitude $54^{\circ} 41.2'$ N., longitude $163^{\circ} 08.1'$ W. as indicated by the $1\frac{1}{2}$ fathom soundings on line 80g - 84g. This was developed by the soundings between positions 79p and 85p. Nothing less was found.

e. ANCHORAGES:

Coast Pilot notes have been submitted describing the possible anchorages ^{/25} as covered by this sheet.

Dora Harbor offers anchorage for small craft except in violent southwest weather.

West Anchor Cove offers only indifferent anchorage to large craft due to the heavy swells which make in from the south and southwest. Small craft can find some protection in the shallow eastern end of the cove.

f. COMPARISON WITH PREVIOUS SURVEYS:

Depths in West Anchor Cove are in general as indicated on Chart 9701.

The depths in Dora Harbor agree closely with those on sheet H-2557.

(Also see #2 under section "b", this report).

g. TIDES:

The reducers for tide in the sounding records were taken from the portable automatic gage established in Dora Harbor.

h. STATISTICS FOR SHEET 11-36:

Number of positions (hand lead)	- - - - -	1300
" " " (wire)	- - - - -	197
Number of soundings (hand lead)	- - - - -	5598
" " " (wire)	- - - - -	570
Statute miles of soundings (hand lead)	- - - - -	147.2
" " " " (wire)	- - - - -	31.9

Respectfully submitted,

Earle A. Deily
Earle A. Deily
H. & G. Engineer.

Approved & forwarded
Jack Dennis
H. & G. Engr.
1/12/37

Field Records Section (Charts)

H6150 (1936) and (1937)

HYDROGRAPHIC SHEET NO.

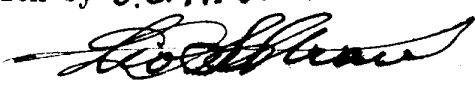
The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	2581
Number of positions checked	..66.
Number of positions revised	..3...
Number of soundings recorded	..8783
Number of soundings revised	..212.
Number of signals erroneously plotted or transferred	..0.....

Date: 15 July, 1938.

Verification by G.C. Mc Glasson

Time: ~~12 days~~ 84 hours

Review by 

Time: 42 hours

HYDROGRAPHIC SURVEY NO. H-6150 (1936-37)

Smooth Sheet Yes

Boat Sheet Yes

Sounding Records 5 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) No

Statistics Yes

Approved by Chief of Party No

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service No.
(Circular Nov. 30, 1933)

Remarks _____

HYDROGRAPHY

Total D 16 Days, 1936

Last Date Sept. 25, 1936

GEOGRAPHIC NAMES

Survey No. **H6150**
(1936-37)

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Ikatan Pen.</u>	✓										1
<u>Dora Harbor</u>	✓										2
<u>West Anchor Cove</u>	✓										3
<u>Bird I.</u>	✓										4
	✓										5
											6
											7
											8
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											24
											25
											26
											27

Names underlined in red approved
by *[Signature]* on 2/24/37

Remarks

Decisions

1		See T-6505
2		" "
3		" "
4		" "
5		" "
6		
7		
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27		

TIDE NOTE FOR HYDROGRAPHIC SHEET

Division of Hydrography and Topography:

✓ Division of Charts: Att: Mr. E. P. Ellis

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6150 (1936-37)

Locality Dora Harbor and West Anchor Cove, Unimak Island, Aleutian Islands.

Chief of Party: Jack Senior in 1936

Plane of reference is mean lower low water reading

1.6 ft. on tide staff at Dora Harbor

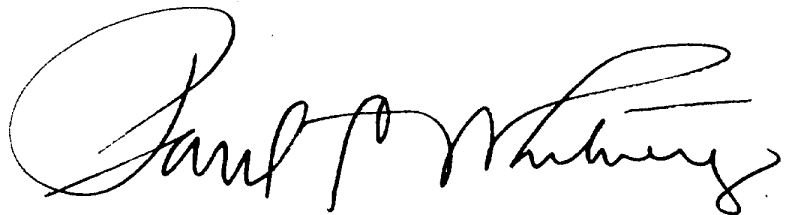
7.8 ft. below B.M. 1

6.0 ft. on T. S. at King Cove

17.5 ft. below B. M. 1

Height of mean high water above plane of reference is 5.6 ft. at Dora Harbor;
6.1 ft. at King Cove.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H-6150 (1936-37)
~~No. 1~~

received Jan. 18, 1937
 registered Jan. 21, 1937
 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	<i>FLP</i>	<i>pages 2 & 3 F.L.P. - you have seen the sheet.</i>
24		
✓ 25	<i>FLP</i>	<i>D. R. 4 -</i>
26		
30		
40		
62		
63		
82		
83		
88		
90		

RETURN TO

82	C. K. Green
----	-------------

Preliminary Inspection of H-6150 (1936)

Section of Field Records

MEMORANDUM ON H-6150 (1936)

The following additional work is necessary on H-6150 (1936) to complete the area already surveyed. Where split or cross lines or development of specific shoal soundings on the 1936 work are necessary, they have been indicated in red on the boat sheet. Additional investigations of charted information are indicated by a number corresponding to the following paragraph numbers.

1. The $3 \frac{4}{6}$ fathom sounding (not charted) originating with H-2557 (1901) in lat. $54^{\circ} 42.1'$, long. $163^{\circ} 16.4'$ and falling in the vicinity of a shoal area indicated by several $4 \frac{1}{6}$ fathom soundings. The $3 \frac{4}{6}$ fathoms is a single sounding on line (pos. 20 to 21a).
2. The charted rock awash in lat. $54^{\circ} 42.0'$, long. $163^{\circ} 15.6'$ originating with H-2557 (1901) and falling in depths of about $1 \frac{1}{2}$ fathoms. This rock was found on line (pos. 24 $\frac{1}{2}$ to 25a) and is just awash at MLLW, a single sounding of minus 0.2 feet, reduced being obtained directly on the rock.
3. The charted rock awash originating with H-2557 (1901) in lat. $54^{\circ} 42.5'$, long. $163^{\circ} 15.4'$ and falling near the outermost edge of a shoal area awash at MLLW. This rock was found on line (pos. 34 to 35a) and bares 1 foot at MLLW, a sounding of minus 1.2 feet, reduced being obtained directly over the rock. Examine area at low water for verification of rock in this vicinity.
4. The $2 \frac{5}{6}$ fathom sounding ($2 \frac{3}{4}$ fathoms charted) originating with H-3307a (1911) in lat. $54^{\circ} 41.65'$, long. $163^{\circ} 08.2'$ and falling in depths of 4 fathoms, even bottom. This is a single sounding on line 12 to 13b, violet which was run in a north to south direction, the shoaling indication being supported by a $3 \frac{1}{2}$ fathom sounding obtained just northward.

Reviewed by Harold W. Murray.

March 20, 1937.

Inspected by A. L. Shalowitz.

~~Examined and approved:~~

~~G. K. Green,
Chief, Section of Field Records.~~

~~Chief, Division of Charts.~~

~~Chief, Section of Field Work.~~

~~Chief, Division of H. & T.~~

15 July, 1938.

Report on H 6150
Verifying and Sinking

1. The records, as a whole, conform to the requirements of the General Instructions, however the following discrepancies were noted:

Soundings were spaced at unequal intervals on the smooth sheet, while they were at equal intervals on the boat sheet. Moreover the notes and especially the timing were very difficult to read in many places. "H" day in volume 6 is a good example of the above statement.

Bottom characteristics often were abbreviated incorrectly and some were hard to read. Furthermore it is suggested that more bottom samples be taken on future surveys.

Minus soundings were erroneously reduced as plus soundings.

2. The usual depth curves can be drawn within the limits of the survey. However only an outline of the curves were shown in close to shore when deep water prevailed.
3. The field plotting was completed to the extent prescribed in the Hydrographic Manual.
4. The officer draftsman did not have to do over any part of drafting done by the field party except as noted on the statistic sheet and the following minor corrections:

Five notes pertaining to rocks ~~and~~ awals which were inscribed incorrectly.

The Datum was omitted from the smooth sheet. Ref. Sta. was given with geog. position. Note "ZINALASKA DATUM" was omitted. It has been added to smooth sheet.

The hydrographic stations did not show the initials of the person who plotted them nor of the person who checked them.

No Hydrographic signals were used on the 1936 work.

5. The junctions with contemporary adjacent sheets will be made at a later date and discussed in the report at that time.
6. The signals and shoreline were taken from T 6504 (1936),

T 6505 (1936) and T 6507 (1936).

The hydrographic stations "Lion", "Water", and "Fall", evidently were spotted on the boat sheet from the 1936 topography, consequently they were transferred from the boat sheet to the smooth sheet and checked with T 6504 (1936) and T 6505 (1936) and were inked ^(although of topo origin) as hydrographic signals in the office.

Topographic signals "Gate" and "Car" were plotted on the smooth sheet from T 6507 (1936). These signals were renamed "Gun" and "Coon" respectively, by the 1937 Hydrographic Survey (1937) Location recorded in Vol. 6, pages 344 & 46150.

- Hydrographic Survey (1937) Location recorded in Vol. 6, page 45 of H-6150
7. There are no aids to navigation shown on the sheet.
 8. In a number of instances on the topographic sheets T Disposed 6504 (1936) and T 6505 (1936), there is no way of knowing to which rocks the notes refer. Consequently the verifier transferred these notes to the smooth sheet in approximately

the same position as they were
recorded on the topographic
sheets. Therefore higher authority
may determine the exact rocks
designated by the notes.

Respectfully submitted

G. L. McGlasson

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6150 (1936-37) FIELD NO. 1136

Dora Harbor and West Anchor Cove, Unimak Island,
Aleutian Islands

Surveyed in August - September 1936, Scale 1:10,000
May - June 1937

Instructions dated March 30, 1936 and March 30, 1937.

Hand Lead and Machine Soundings.

3 Point fixes on shore signals.

Chief of Party - Jack Senior (1936) Ray L. Schoppe (1937)
Surveyed by - Earle A. Deily (1936), Ira R. Rubottom (1937)
Protracted by - O. B. Hartzog, and Earle A. Deily (1936), W. A.
Bruder (office).
Soundings plotted by - Earle A. Deily (1936), W. A. Bruder (office).
Verified and inked by - G. C. McGlasson.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual except as follows:

- a. Minus soundings (1936) work, were erroneously reduced as plus soundings. These were corrected in the office.
- b. The number of bottom characteristics on the 1937 work averaged only eight per volume. See par. 50, Hydrographic Manual.
- c. The abbreviation gr which is meaningless was used. See page 158, hydrographic manual.

The Descriptive Report is clear and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

This survey satisfies the instructions for the project.

3. Shoreline and Signals.

The shoreline and signals are from T-6504 (1936) and T-6505 (1936) except Hydrographic signals LOST and POINT, which are recorded on pages 3, 4 and 45 of Volume 6 (H-6150).

4. Sounding Line Crossings.

No general system of cross lines was run, but those that occur, as well as the adjacent parallel lines, show a good agreement.

5. Depth Curves.

The usual depth curves can be satisfactorily drawn including

portions of the 0, 1, 2, 3 and 5 fathom curves.

6. Junctions with Contemporary Surveys.

The present survey is joined only by one contemporary survey H-6146 (1936), which junction will be considered in the review of that survey.

7. Comparison with Prior Surveys.

a. H-2557 (1901) scale 1:20,000.

This survey of Dora Harbor contains a sparse development when compared with the present survey; however, the depths are in good agreement except for a few soundings (not charted) in approximate lat. $54^{\circ} 41.7'$, long. $163^{\circ} 16.1'$, which are from two to three fathoms too shoal. These soundings fall in a well developed area on the present survey and are out of position. The rock charted in lat. $54^{\circ} 41.6'$, long. $163^{\circ} 15.6'$, which probably was sketched (although not mentioned in the remarks column of the old records) from this line is undoubtedly out of position. It is not shown on the present topographic survey T-6504 (1936) nor on T-2554 (1901). Since it falls in depths of 9 fathoms in a well developed area, with no shoal indications on the present survey, it is unlikely that the present field party could have missed this rock had it existed in the position charted. It should be disregarded in future charting.

- (1) The rock awash in lat. $54^{\circ} 42.0'$, long. $163^{\circ} 15.6'$ on chart 8701 originated with H-2557 (1901) and was the subject of paragraph 2 of Instructions of Mar. 30, 1937. The rock located at position 25 S of the present survey differs from the charted rock only by 20 meters in distance and 1 foot in elevation. The two locations are undoubtedly the same rock, and that on the present survey only should be used for future charting.
- (2) The rock awash (charted) in lat. $54^{\circ} 42.3'$, long. $163^{\circ} 15.4'$, which originated with H-2557 (1901) was searched for at low water in May 1937 (Authority par. 3 Instructions dated Mar. 30, 1937). It falls 10 to 40 meters inside of the outer limits of a continuous rocky reef delineated by the present survey. The reef symbol should be used in charting this danger.
- (3) The area in the location of the 3-4/6 fathom sounding (not charted) lat. $54^{\circ} 42.1'$, long. $163^{\circ} 16.4'$ was thoroughly developed in 1937. (Authority par. 3. Instructions dated Mar. 30, 1937). The least depth obtained was 4-1/6 fathoms. Notwithstanding the close development it is quite possible for the minimum depth to have been missed. The 3-4/6 sounding therefore has been carried forward in red, on the present survey.

With the exception of this sounding H-2557 (1901) should be superseded by the present survey in future charting.

b. H-3307a (1911) Approximate Scale 1:18,445.

The approximate high water line is sketched by a dashed black line; no projection is shown on the sheet. The signals were located by rod readings and intersections from an arbitrary base line laid down on the boat sheet.

- (1) An examination of the old records shows beyond question that the dry rock (signal END on the old survey) charted in lat. $54^{\circ} 41.04'$, long. $163^{\circ} 12.48'$ is the same rock located on the present survey in lat. $54^{\circ} 40.97'$, long. $163^{\circ} 12.65'$; also that the rock awash charted in lat. $54^{\circ} 41.36'$, long. $163^{\circ} 12.3'$ does not exist.
- (2) The bare rock (elev. 11') on the old survey (not charted) is located on the present survey in lat. $54^{\circ} 41.29'$, long. $163^{\circ} 12.43'$ (Triangulation Station KRO 1936).
- (3) The bare rock on the old survey (charted in lat. $54^{\circ} 40.8'$ long. $163^{\circ} 09.9'$) falls in depths of 11 fathoms on a gradually sloping bottom about 100 meters north of the bare rock (triangulation station Rock F 1936) lat. $54^{\circ} 40.57'$, long. $163^{\circ} 09.85'$ on the present survey. It is undoubtedly the same rock. The location on the present survey is correct.
- (4) The 2-5/6 fathom sounding (2-3/4 fathoms charted) in lat. $54^{\circ} 41.65'$, long. $163^{\circ} 08.2'$, was investigated in 1937. (Authority par. 3 Instructions dated Mar. 30, 1937). This sounding lies outside the area of closest development and its existence is not considered disproved. It has, therefore been carried forward in red on the present survey. With the exception of this sounding the present survey, H-6150, (1936-37), should, within the common area, supersede H-3307a (1911) for charting purposes.

8. Comparison with Chart No. 8860 (New Print dated Jan. 12, 1938) and Chart No. 8701 (New Print dated April 12, 1937).

Within the area of the present survey the charts are based on surveys discussed in the foregoing paragraphs and contain no additional information that needs consideration in this review except as follows:

- a. The 20 and 17 fathom soundings charted on 8701 in lat. $54^{\circ} 40.04'$ Long. $163^{\circ} 16.5'$, and lat. $54^{\circ} 39.82'$, long. $163^{\circ} 18.45'$ fall in depths of 22 and 23 fathoms on the present survey. They originate with Map 2005 (Library Accession Number) approximate scale

1:500,000, and are undoubtedly out of position. The 20 and 17 fathom soundings should be disregarded in future charting.

- b. The rock bare 4 ft. M.H.W. from T-2554 (1901), charted in lat. $54^{\circ} 40.7'$, long. $163^{\circ} 09.68'$ which falls in depths of 12 fathoms 190 meters southeast of a rock (Rock F, 1936) also bare 4 ft. M.H.W. on the present survey. These two rocks and the rock from H-3307a (1911) discussed in paragraph 7b(3) this review (charted in lat. $54^{\circ} 40.8'$, long. $163^{\circ} 09.9'$) are identical. The confusion regarding this rock was caused by discrepancies in the old surveys. (See note on T-2554 to that effect). The existence of one rock only is clearly shown on the photograph opposite page 12 of the descriptive report for T-2554.
- c. The 3 fathom sounding on chart No. 8701 in lat. $54^{\circ} 41.43'$ long. $163^{\circ} 08.8'$, is from the present survey reported by chart letter No. 72 (1937) applied before verification and review. It agrees with the 2-5/6 fathom sounding in the same location on the present survey.

9. Field Plotting.

The field plotting was satisfactory.

10. Additional Field Work Recommended.

This survey is complete and no additional work is necessary.

11. Superseded Old Surveys.

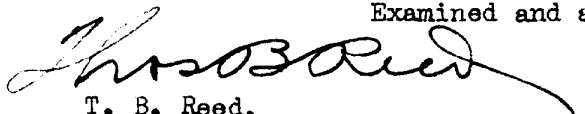
Within the area surveyed the present survey, with the indicated additions from previous surveys, supersedes the following surveys for charting purposes.

H-2557 (1901) entirely
H-3307a (1911) in part


12. Reviewed by - Leo S. Straw, August 8, 1938.

Inspected by - E. P. Ellis.

Examined and approved:


T. B. Reed,
Chief, Section of Field Records.


K.T. Adams
Chief, Division of Charts.


Fred L. Peacock
Chief, Section of Field Work.


G. H. Gude
Chief, Division of H. & T.

1936 & 1937 surveys applied to chart 8701 J.M.A. Mar. 1939

6150 (Addt. Wr. (1937))

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

DEC 20 1937

8860-2

(Addt. Wr. (1937))

6150

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 11-36-37
Hydrographic } (H-6150)

State Alaska Aleutian Islands

LOCALITY

~~Marion Perimela~~, Unimak Island
Dora Harbor and West Anchor Cove

193 7

CHIEF OF PARTY

Ray L. Scheppe

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 11-36-37 (H-6150)

REGISTER NO. H 6150 (Addition) (1937)

State ~~Alaska~~ Aleutian Islands

General locality ~~Eastern Peninsula,~~ Unimak Island

Locality Dora Harbor and West Anchor Cove

Scale 1:10,000 Date of survey May and June, 19 37

Vessel DISCOVERER

Chief of Party Ray L. Schoppe

Surveyed by Ira R. Rubottom, Jr. H. & G. Engr.

Protracted by W.A. Bruder

Soundings penciled by W.A. Bruder

Soundings in fathoms ~~Feet~~

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by - - -

Inked by G. C. McGlasson

Verified by G. C. McGlasson

Instructions dated March 30, 1936 & March 30, 1937, 19

Remarks: Smooth protracting of 1937 work to be accomplished in the Washington Office.

DESCRIPTIVE REPORT

Covering 1937 work on

HYDROGRAPHIC SHEET H-6150 (1936-1937)

Dora Harbor and West Anchor Cove

Ikatan Peninsula, Unimak Island, Alaska

DATE OF INSTRUCTIONS:

Instructions for this work are basically those dated March 30, 1936. All details and special development were done under authority of the Director's Supplemental Instructions dated March 30, 1937.

SURVEY METHODS:

Standard methods for hydrographic surveys with ship's launch were used throughout the work. In general hand lead soundings were carried out to approximately the 10 fathom curve. Wire soundings, with power sounding machine, were used outside the limit of hand lead soundings.

The signals on this sheet were located by triangulation and topography during the 1936 season. For the most part enough of the signals were recovered to enable the work to be carried on efficiently. In a few cases where sufficient signals were not recoverable, new signals were established and located by sextant cuts. These are all listed in the Index of Objects Located by Hydrographic Party in the sounding records.

In general all inshore lines had been run on the sheet during the 1936 season, but additional lines and development were run to facilitate drawing of the depth curves.

All incompletd portions of the sheet were filled in, and all areas that were noted for further development in the 1936 report, were properly investigated.

Additional investigations mentioned in the Preliminary Inspection of H-6150 (1936) were thoroughly made in the field.

RESULTS OF INVESTIGATIONS:

Paragraph No. 1, Preliminary Inspection of H-6150 (1936): ^{Lat. 54° 42.1' Long. 163° 16.4'} ^{Copy} (Enclosed herewith):

A great many cross lines and split lines were run over the area mentioned in this paragraph, running at very slow speed on smooth days, and the least depth ever obtained was 4-1/6 fathoms. REVIEW
PAR 7a(3)

Paragraph No. 2, Preliminary Inspection of H-6150 (1936): ^{Lat. 54° 42.0'} ^{Long. 163° 15.6'}

The rock awash referred to in this paragraph seems to be non-existent. This area was investigated at minus tide, and it was found that a submerged reef extends offshore to within approximately 50 meters of the plotted position of this rock. A high point on the reef near the outer limits was found to bare about 1 foot at M.L.L.W. and this point was located by a three point fix, position No. 25s. PAR 7a(1)

Paragraph No. 3, Preliminary Inspection of H-6150 (1936): ^{Lat. 54° 42.3'} ^{Long. 163° 18.4'}

The area in the vicinity of the rock referred to in this paragraph was carefully investigated at times of approximately 1 foot minus tide. At which times actual landings were made on the outer limits of the reef and three point sextant fixes were taken, positions 19s and 20s and positions 1z to 5z. This is a definite and continuous reef out to the limits as shown on the boat sheet. There is no separate rock in the area, but there are numerous points on the reef that bare above M.L.L.W. Since this was one solid and continuous rock ledge none of these points were located on the hydrographic survey. PAR 7a(2)

Paragraph No. 4, Preliminary Inspection of H-6150 (1936): ^{Lat. 54° 41.65'} ^{Long. 163° 09.2'}

The area around the 2-5/6 fathom sounding referred to in this paragraph was thoroughly investigated and a number of soundings reducing to 3-4/6 fathoms were obtained. Approximately 250 meters to the eastward and in PAR 7b(4)

in West Anchor Cove.

3. There is a $2\frac{1}{2}$ fathom sounding some 200 meters off the end of the reef and $\frac{1}{2}$ mble offshore in latitude $54^{\circ} 39'.9$ N, longitude $163^{\circ} 09'.95$ W. This constitutes the most important danger to craft entering West Anchor Cove from the eastward.

ANCHORAGES:

Coast Pilot notes were submitted with the 1936 report describing possible anchorages in the area covered by this sheet.

During the 1937 season the DISCOVERER anchored in West Anchor Cove in latitude $54^{\circ} 41'.1$ N, longitude $163^{\circ} 09'.0$ W, in 8 fathoms of water and had reasonable protection in strong southeasterly weather.

COMPARISON WITH PREVIOUS SURVEYS:

These surveys in general agreed very well with those of 1936 where they were overlapping, and in general they agreed with the depths indicated on chart 8701. The depths agree very closely with those on sheets H-2557 (1901) and H-3307a (1911), except as previously noted in this report.

TIDES:

The reducers for tide were taken from the records of the Portable Automatic gage established in Dora Harbor on May 26, 1937.

STATISTICS FOR SHEET H-6150 (1937):

Number of positions - - - - -	1084
Number of soundings (hand lead) - - - - -	1249
(wire) - - - - -	1366
Statute miles of soundings (hand lead) - - -	34.7
(wire) - - - - -	76.9

Respectfully submitted,

Approved and forwarded:

Ray L. Schopps
Ray L. Schopps

Chief of Party, C. & G. S.

Ira R. Rubottom
Ira R. Rubottom,
Jr. H. & G. Engineer.

general depths of $3\frac{1}{2}$ fathoms, a few $3-1/6$ fathom soundings were obtained, but these do not seem to fit the position of the $2-5/6$ fathom sounding from H-3307a (1901).

DISCREPANCIES:

A slight discrepancy was encountered in latitude $54^{\circ} 41.4' N.$, longitude $163^{\circ} 14.8' W.$, position 52u. A sounding reducing to $6-2/6$ fathoms was obtained on the machine - and was checked at the time - in an area of $9\frac{1}{2}$ to 10 fathoms. Cross lines and splits, positions 188v to 196v, were run over the area, and more than an hour was spent drifting over the spot with two leads out, and no indication of the sounding was obtained. However this is believed to be a good sounding and should be retained. It was probably on a very sharp pinnacle that would be difficult to find again without dragging, and since it was near a very foul shoreline it was not deemed important enough to spend any more time on.

On the southeast side of Bird Island between signals GUT and FIT a number of offshore rocks seemed to be at variance with the topography. These rocks were located by sextant cuts from the launch and are plotted on the boat sheet in blue, with appropriate notes as to their elevations, etc.

Other discrepancies have been previously covered in this report.

DANGERS:

Dangers other than those noted in the 1936 report are as follows:

1. The reef on the east side of Dora Harbor in latitude $54^{\circ} 42.3' N.$, longitude $163^{\circ} 15.5' W.$ This constitutes the most important danger in entering Inner Dora Harbor. It does not bare except at minus tides, and it is not marked by kelp. It is also so well protected from the outside swells that they seldom give any indication of it.

2. There is a $2-5/6$ fathom shoal in West Anchor Cove in latitude $54^{\circ} 41.43' N.$, longitude $163^{\circ} 08.8' W.$ This constitutes the most important danger

Preliminary Inspection of H-6150 (1936)

Section of Field Records

MEMORANDUM ON H-6150 (1936)

The following additional work is necessary on H-6150 (1936) to complete the area already surveyed. Where split or cross lines or development of specific shoal soundings on the 1936 work are necessary, they have been indicated in red on the boat sheet. Additional investigations of charted information are indicated by a number corresponding to the following paragraph numbers.

1. The $3 \frac{4}{6}$ fathom sounding (not charted) originating with H-2557 (1901) in lat. $54^{\circ} 42.1'$, long. $163^{\circ} 16.4'$ and falling in the vicinity of a shoal area indicated by several $4 \frac{1}{6}$ fathom soundings. The $3 \frac{4}{6}$ fathoms is a single sounding on line (pos. 20 to 21a). *See Review par 7 a(3)*
2. The charted rock awash in lat. $54^{\circ} 42.0'$, long. $163^{\circ} 15.6'$ originating with H-2557 (1901) and falling in depths of about $1 \frac{1}{2}$ fathoms. This rock was found on line (pos. 24 $\frac{1}{2}$ to 25a) and is just awash at MLLW, a single sounding of minus 0.2 feet, reduced being obtained directly on the rock. *par 7 a(1)*
3. The charted rock awash originating with H-2557 (1901) in lat. $54^{\circ} 42.3'$, long. $163^{\circ} 15.4'$ and falling near the outermost edge of a shoal area awash at MLLW. This rock was found on line (pos. 34 to 35a) and bares 1 foot at MLLW, a sounding of minus 1.2 feet, reduced being obtained directly over the rock. Examine area at low water for verification of rock in this vicinity. *par 7 a(2)*
4. The $2 \frac{5}{6}$ fathom sounding ($2 \frac{3}{4}$ fathoms charted) originating with H-3307a (1911) in lat. $54^{\circ} 41.65'$, long. $163^{\circ} 08.2'$ and falling in depths of 4 fathoms, even bottom. This is a single sounding on line 12 to 13b, violet which was run in a north to south direction, the shoaling indication being supported by a $3 \frac{1}{2}$ fathom sounding obtained just northward. *par 7 b(4)*

Reviewed by Harold W. Murray.

March 20, 1937.

Inspected by A. L. Shalowitz.

Examined and approved:

~~G. K. Green,~~
~~Chief, Section of Field Records.~~

~~Chief, Division of Charts.~~

~~Chief, Section of Field Work.~~

~~Chief, Division of H. & T.~~

*Copy filed in
F.R. - H 6150*

HYDROGRAPHIC SURVEY NO. H-6150 ~~Adml. Work~~, (1937)

Smooth Sheet Original One

Boat Sheet Original One

Sounding Records 3 Vols. _____

Descriptive Report Yes

Title Sheet Yes

List of Signals Vol. #6

Landmarks for Charts (Form 567) None

Statistics None

Approved by Chief of Party No

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service None
(Circular Nov. 30, 1933)

Remarks _____

HYDROGRAPHY

Total Days 9.....

Last Date June 18, '37.

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY }
 DESCRIPTIVE REPORT } No. H-6150 ~~1937~~ ¹⁹³⁷ ~~work~~
 PHOTOSTAT OF } No. ~~XXXX~~

{ received Dec. 20, 1937
 { registered Dec. 20, 1937
 { 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
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RETURN TO

82	C. K. Green
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Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 8, 1938

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. E. P. Ellis

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET ⁶¹⁵⁰~~6115~~ add. wk. 1937

Locality Dora Harbor and West Anchor Cove, Unimak Cove, Aleutian Islands.

Chief of Party: Ray L. Shoppe in 1937
Plane of reference is mean lower low water reading
2.2ft. on tide staff at Dora Harbor
7.8ft. below B.M. 1

Height of mean high water above plane of reference is 5.6 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.