

6177 abc

Alaska  
June 1936

Form 504  
Ed. June, 1928

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

State: Alaska

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. 1036, 536, 1.25  
Hydrographic }

LOCALITY

~~SOUND OF ALASKA~~

GASTINEAU CHANNEL

Ready Bullion Cr. to Salmon Cr.

~~1936~~

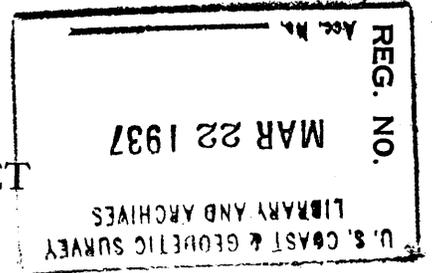
CHIEF OF PARTY

H. Arnold Kero

6177a  
2210

200

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. 1036  
Project No. 209  
REGISTER NO. H 6177a

State Southeastern Alaska

General locality Gastineau Channel

Locality Ready Bullion Creek to Salmon Creek

Scale 1-10,000 Date of survey May 21 to June 4 and Aug. 28 to Sept. 4 1936

Vessel M. V. Westdale

Chief of Party H. Arnold Karo

Surveyed by H. Arnold Karo, A. Newton Stewart

Protracted by A. Newton Stewart

Soundings penciled by A. Newton Stewart

Soundings in fathoms 1000

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by [Signature]

Verified by [Signature]

Instructions dated March 5, 1936

Remarks: Tide Gauge at Govt. wharf, Juneau

Handlead soundings.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
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MAR 23 1937

REG. NO.

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. 536

Project No. 209

REGISTER NO. HG1776

State Southeastern Alaska

General locality Castinean Channel

Locality Juneau Waterfront

Scale 1-5,000 Date of survey May 29 to June 4, 1936

Vessel M.Y. Westdahl

Chief of Party H. Arnold Karo

Surveyed by A. Newton Stewart

Protracted by D.H. Konichek

Soundings penciled by D. H. Konichek

Soundings in fathoms Meters

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by [Signature]

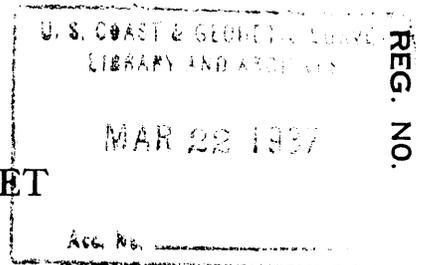
Verified by [Signature]

Instructions dated March 5, 1936

Remarks: Tide Gage at Govt. wharf, Juneau

Handlead soundings

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. 1.25  
Project No. 209  
REGISTER NO. H6177c

State ~~Southeastern~~ Alaska

General locality Gastineau Channel

at  
Locality Wharves, Juneau and Douglas

Scale 1 : 1 250 Date of survey May 27 to June 5 and Sept 5, 19 36

Vessel M. V. Westdahl

Chief of Party H. Arnold Karo

Surveyed by A. Newton Stewart

Protracted by A. Newton Stewart

Soundings penciled by A. Newton Stewart

Soundings in fathoms ~~XXXX~~

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by *[Signature]*

Verified by *[Signature]*

Instructions dated March 5, 1936

Remarks: Tide gage at government wharf, Juneau.

Handlead soundings.

DESCRIPTIVE REPORT  
TO OCCOMPANY  
HYDROGRAPHIC SHEETS NOS. 1036, 536, and 1.25  
PROJECT NO. 209  
SOUTHEASTERN ALASKA \* GASTINEAU CHANNEL  
M. V. Westdahl  
H. Arnold Karo, Chief of Party

Date of Instructions: March 5 1936

Survey Methods: The control for these sheets consists of recovered triangulation stations established in 1921 by N. H. Heck with additional stations established north of Juneau in 1936 in conjunction with this survey. The plotted positions of stations on the upper end of the sheet down to and including Cow are determined from the positions of Stream and Creek by observations made in 1936.

Topographic stations are taken from three topographic sheets surveyed in 1936, those signals in the vicinity of Juneau being reduced from a 5000 scale. There are no hydrographic stations.

The usual methods of handlead sounding were followed in making this survey. In the deeper water south of the Douglas bridge the Westdahl was used. For all inshore work and all hydrography north of the Douglas bridge two dinghys were secured side by side. These were propelled by outboard motors.

On sheet 1.25 the wharf plans have been drawn large from measured distances rather than from an enlargement of the topographic sheets. However the two agree very closely. The wharves were oriented and the various odd angles determined by transferring points from the topographic sheets by latitude and longitude. On this sheet the usual plan of day letter and position number was not followed, the positions being given continuity by letters as indicated on sketches in the record books. Measured distances in feet of fathoms and feet as shown on the sketches are somewhat less reliable than those shown in meters, as they were made with the leadline. All positions on this sheet were determined by measured distances.

Discrepancies: There are no apparent discrepancies in this survey, all crossings being within required limits of accuracy.

The hydrography plotted on overlay No. 1, positions 50 - 69k at the northern limit of the work may be questioned for reasons given in the notes in the record. *Agreement satisfactory* plotted as stated on page 6 Vol. 8.

*applied to smooth sheet.  
tracing destroyed. H.W.*

In several places in the records the recorder has made obvious errors of a minute in time. These have been noted and corrected as seemed best while plotting the smooth sheet.

It should be noted that the position of topographic signal Stud was in error on the boat sheet, and lines run when that signal was used are out of position. *See Note in record page 68, Vol. 5.*

Dangers: Other than banks extending from shore in various places there were no dangers found except those lying from 100 to 300 meters south-east of Rock Dump Light. A number of shoal soundings were found in this area which constitute a menace to vessels entering port on a course laid close to the light. Due to the weight of the mine tailings inshore, the bottom in this area is believed to be unstable, and further shoaling apt to occur. For this reason it is recommended that larger vessels keep outside the ten fathom curve. Two buoys, one of them lighted, have been established in this area since the survey was completed. Development of shoal soundings is shown on two overlays, Nos. 2 and 3, which accompany sheet H-6177a No. 1036. *Tracings applied to smooth sheet destroyed. H.W.M.*

Attention is called to the two foot sounding on position 75h in mid-channel just north of latitude 58 degrees and 29 minutes. *(Shoalest side on 1 fathom shoal.)*

Comparison with previous surveys: This comparison is made with USC&GS chart # 8235 as no copies of hydrographic sheets have been furnished.

The area covered by the rock dump from the Alaska-Juneau Mine has been enlarged, particularly on the south side. Though very little additional rock is being dumped, sand from the concentrating process is being washed away from the mill to this side, and further slow shoaling will probably result.

In general the depths shown throughout the area surveyed are about one fathom less than shown previously. A somewhat greater shoaling is shown a short distance <sup>1</sup> off the Juneau docks. *See Rev., par. 7 for further details. H.W.M.*

The  $3\frac{1}{2}$  fathom spot charted just southwest of rock dump light was not found in the position shown though it was searched for. However, shoaler soundings were found nearby, as mentioned previously.

There are a number of changes in the wharves as charted which need not be mentioned separately as the new survey shows in detail the water-front as it is at present.

General: The low water line has been established definitely by the hydrography except in a few spots. Around the north and northwest sides of the rock dump it has not been drawn in to avoid congestion on the smooth sheet. Part of the depth curves in the shoaler depths and bottom characteristics in some areas have been left off for the same reason.

Rock from the Alaska-Juneau Mine is being carried out in barges and dumped at about the twenty fathom curve in the area off Bay, 1921. An occasional load is being dumped in the vicinity of position 5 a on sheet No. 536.

No mention has been made of the Lawson Creek Bar Beacon in the records, as it had been destroyed and was re-established after the completion of this survey.

With a strong ebb tide and southeasterly breeze there are small tide rips from the Douglas bridge down the channel about two thirds of the way to triangulation station Son, 1921.

Respectfully submitted,

*A. Newton Stewart*  
A. Newton Stewart, Jr. H. & G. E.

see Rev.  
for 82.

Depth  
curves  
indicated  
where possible  
in office.

STATISTICS  
TO OCCOMPANY

HYDROGRAPHIC SHEETS NOS. 1036, 536, 1.25

SHEET NO. 1036

DATE	DAY	BOAT	STAT. MI.	NO. Pos.	NO. SDGS.
1936			SNDG. LINE		
5 -21	A	Westdahl	17.2	134	282
5 -22	B	Do.	19.0	135	365
5 -23	C	Do.	4.3	37	137
5 -25	D	Do.	17.2	173	507
5 -26	E	Do.	17.2	164	311
5 -30	a	Dinghy	15.4	194	1532
6 -1	b	Do.	10.4	170	615
6 -2	c	Do.	9.3	137	919
6 -3	d	Do.	9.7	130	731
6 -4	e	Do.	2.6	148	423
8 -28	f	Do.	16.8	203	1264
8 -29	g	Do.	14.2	170	1289
8 -31	h	Do.	12.0	160	713
9- 3	j	Do.	5.9	83	355
9- 4	k	Do.	5.7	82	407
		TOTAL FOR WESTDAHL	74.9	643	1602
		TOTAL FOR DINGHY	102.0	1479	8248
		GRAND TOTALS	176.9	2122	9850

STATISTICS (con't)

SHEET NO. 536

DATE 1936	DAY	BOAT	STAT MI. SNDG. LINES	NO. POS.	NO. SNDGS.
5-29	a	Dinghy	5.4	148	281
6-4	b	Do.	2.3	48	92
		TOTALS	7.7	196	373

SHEET NO. 1.25

DATE 1936	DAY	BOAT	STAT. MI. SNDG. LINES	NO. POS.	NO. SNDGS.
5-27				370	370
5-28				385	385
5-29				96	96
6-5				103	103
6-9				88	88
		TOTALS		1042	1042

Seattle, Washington

March 13<sup>o</sup>, 1937

Hydrographic sheets 1.25 - 36<sup>o</sup>, 5 - 36<sup>o</sup>, and 10 - 36 and accompanying records have been inspected and are approved.

  
H. Arnold Karo, Chief of Party, C&GS

Report  
Verification of Hydrographic Survey No. 6177a,b,c.

Gastineau Channel

Juneau, Alaska  
Chief of Party H. Arnold Karo.

1. Condition of Records.

The records conform to the requirements of the Hydrographic Manual except as noted in the Descriptive Report in regard to position numbers on field sheet No. 1.25(H-6177c). *Accepted. Not mentioned in review. H.W.M.*

2. Shore line and Control.

The shore line and control are from T-6518(1936); T-6519(1936); and T-6520(1936).

3. Sounding Line Crossings.

The sounding line crossings are satisfactory.

4. Depth Curves.

The usual depth curves can be satisfactorily drawn.

5. Aids to Navigation.

There are no floating aids to navigation shown on this survey. Attention is called to the statement in the Descriptive report in regard to Lawson Creek Bar Beacon page 3. It is also noted that the position of Lawson Creek Bar Bn. shown on H-6177a is about 30 m. south of the positions shown on T-6518, T-6519 and H-6177b. This apparent error in location on H-6177a has not been corrected and should be disposed of when the survey is reviewed. *Location on T-6519 is correct. See D.R. page 1 of T-6519(1936). Later location shown on smooth sheets. H.W.M.*

6. Junctions with contemporary surveys.

No junctions were made with other surveys. The junctions between the a, b, and c sheets of this survey are satisfactory.

7. Field Plotting.

The field plotting was satisfactory.

8. Remarks.

a. The shore line in the section of the Gastineau Channel at Juneau on H-6177a, covered by T-6519 was reduced photographically and inked on H-6177a in the office.

b. The shore line (docks in general) on H-6177c was checked by an enlargement of T-6519 and inked in the office.

Verified and inked by



May, 20, 1937.

Leo. S. Straw.

*A telephone line is shown on T. 6519(1936) just south of the bridge. A pencil note on the Topo. sheet indicates that the line is carried overhead across the channel. It should be shown on H. 6177a. See memo in D.R.T. 6519 regarding bridge data. E.P.C.*

Field Records Section (Charts).

H6177 a  
H6177 b  
H6177 c

HYDROGRAPHIC SHEET NO. H-6177abc

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

Number of positions on sheet	3360
Number of positions checked	21
Number of positions revised	8
Number of soundings recorded	11265
Number of soundings revised	200
Number of signals erroneously plotted or transferred	0

Date: *May 20, 1937*  
*Inked and*  
Verification by *[Signature]*  
Review by *Harold W. Murray*  
Ver. Corr. by "

Time: *115 hr.*

Time: *22 1/2 "*

*2 1/2 "*

HYDROGRAPHIC SURVEY NO. H-6177abc

Smooth Sheet One for H-6177a, One for H-6177b & One for H-6177c

Boat Sheet One for H-6177a, One for H-6177b & None for H-6177c

Sounding Records 8 Vols for H-6177a  
One " H-6177b  
3 Vols " H-6177c

Descriptive Report One D. R. covers the three surveys

Title Sheet One title sheet for each survey

List of Signals Vol. #1 of H-6177a

Landmarks for Charts (Form 567) Yes

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

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

Remarks \_\_\_\_\_

HYDROGRAPHY <b>H-6177a</b>	HYDROGRAPHY <b>H-6177b</b>	HYDROGRAPHY <b>H-6177c</b>
Total Days <u>15</u>	Total Days <u>7</u>	Total Days <u>6 1/2</u>
Last Date <u>Sept. 4, 1936</u>	Last Date <u>June 4, 1936</u>	Last Date <u>June 9, 1936</u>

# GEOGRAPHIC NAMES

Survey No. H-6177abc

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K	USCP	
<u>Salmon Creek</u>	✓	T-2017	✓	✓							1
<u>Juneau</u>	✓	T-2017	✓	✓			✓		✓		2
<u>Douglas</u>	✓	T-2017	✓	✓			✓		✓		3
<u>Thane</u>	✓ appd	✓					✓		✓		4
<u>Sheep Creek</u>	✓	T-2017	✓	✓					✓		5
<u>Ready Bullion Creek</u>	✓	Bullion Cr T-2017	✓	✓							6
Douglas Wharf											7
Standard Oil Co. Wharf											8
Union Oil Co. Wharf											9
<u>Gastineau Channel</u>	✓	✓	✓					✓	✓		10
<u>Gold Creek</u>	✓	✓	✓	✓							11
<u>Juneau Isle</u>	✓	T-2017 T-3267	✓	✓					✓		12
✓ <u>Douglas Island</u>	✓	✓ T-2017	✓	✓					✓		13
<u>Southeast Alaska</u>	✓	✓									14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved  
by YAE on 4/6/37

Remarks

Decisions

1		
2		
3		
4		USGR decision
5		
6	T-2017 use "Bulkion Cr" and "Ready Bulkion Cr" interchanged as charted on B235 OK see T-6518	Not a G.N. for this sheet. See T300
7	Names of wharfs are OK for hydro sheet but not app'd for GN standard.	} Not a G.N. <sup>OK for Hydro</sup> Not a G.N. "
8		
9		
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26		
27		

# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
 DESCRIPTIVE REPORT  
~~PHOTOSTAT OF~~

No. H-6177abc  
~~No. 1~~

received Mar. 22, 1937  
 registered April 2, 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			
24			
✓ 25			DR page 2
26			
30			
40			
62			
63			
✓ 82	E. P. Ellis	EP	See me re - Δ before work on this survey C.R.G.
83			
88			
90			

RETURN TO

82	C. K. Breen
----	-------------

CS

TIDE NOTE FOR HYDROGRAPHIC SHEET

April 6, 1937.

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
8 volumes of sounding records for

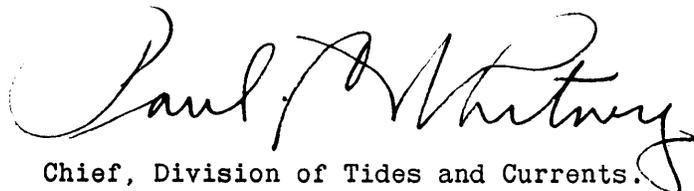
HYDROGRAPHIC SHEET 6177 a

Locality Ready Bullion Creek to Selman Creek, Gastineau Channel,  
S. E. Alaska.

Chief of Party: H. A. Karo in 1936.  
Plane of reference is mean lower low water, reading  
6.6 ft. on tide staff at Juneau  
36.2 ft. below B.M. 8

Height of mean high water above plane of reference is 15.3 feet.

Condition of records satisfactory except as noted below:

  
Chief, Division of Tides and Currents.

## TIDE NOTE FOR HYDROGRAPHIC SHEET

CS

April 6, 1937.

Division of Hydrography and Topography:

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

Tide Reducers are approved in  
1 volume~~s~~ of sounding records for

HYDROGRAPHIC SHEET 6177 b

Locality Juneau Waterfront, Gastineau Channel, S. E. Alaska.

Chief of Party: H. A. Karo in 1936.  
Plane of reference is mean lower low water, reading  
6.6 ft. on tide staff at *Juneau*  
36.2 ft. below B.M. 8

Height of mean high water above plane of reference is 15.3 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

CS

## TIDE NOTE FOR HYDROGRAPHIC SHEET

April 6, 1937.

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 6177 c

Locality Wharves at Juneau and Douglass, Gastineau Channel, S. E. Alaska.

Chief of Party: H. Arnold Karo in 1936.  
Plane of reference is mean lower low water, reading  
6.6 ft. on tide staff at Juneau  
36.2 ft. below B.M. 8

Height of mean high water above plane of reference is 15.3 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6177a (1936) FIELD NO. 1036  
No. 6177b (1936) FIELD NO. 536  
NO. 6177c (1936) FIELD NO. 1.25

Ready Bullion Creek to Salmon Creek, Gastineau  
Channel, Southeastern Alaska  
Surveyed in 1936, Scale 1:10,000, 1:5,000 and 1:1,250  
Instructions dated March 5, 1936 (WESTDAHL)

Hand Lead Soundings.

3 Point fixes on shore signals.

Chief of Party - H. Arnold Karo.  
Surveyed by - H. A. Karo and A. Newton Stewart.  
Protracted by - A. N. Stewart and D. H. Konickek.  
Soundings plotted by - A. N. Stewart and D. H. Konickek.  
Verified and inked by - Leo S. Straw.

1. Condition of Records.

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

- a. The geographic datum was not indicated on the smooth sheets. This was accomplished in the office.
- b. No information could be found in the records of the present survey nor on T-6519 (1936) and T-6520 (1936) of the clearances of the bridge and the telephone line just south of the bridge at Juneau.

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

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project.

3. Shoreline and Signals.

Shoreline and signals are from T-6518 (1936), T-6519 (1936) and T-6520 (1936).

4. Sounding Line Crossings.

Agreement of sounding line crossings is satisfactory.

5. Depth Curves.

The usual depth curves may be satisfactorily drawn.

6. Junctions with Surveys.

No junctions with other surveys are required by the Instructions for the Project. For charting purposes, however, no difficulty will be had in effecting junctions with the charted hydrography originating with surveys discussed in paragraph 7 of this review.

7. Comparison with Prior Surveys.

a. H-2058 (1890).

This 1:20,000 scale sheet covers the entire area of the present survey. The sheet contains no standard projection, the soundings are sparse and no adequate comparison can be made. The depths, however, appear to be generally borne out by the present survey except in the vicinity of lat.  $58^{\circ}17.3'$  long.  $134^{\circ}23.5'$ . A rock dump established here subsequent to the old survey protrudes 450 m. into the channel and is accompanied by a general shoaling extending an additional 250 m. Formerly depths of 18 to 23 fms. were shown here. A shoaling of 1 fm. is also noted in mid channel in the vicinity of Sheep Creek. The present survey should supersede this survey in future charting.

b. H-3376 (1912).

This 1 to 10,000 scale survey covers the southwestern portion of the present survey between lat.  $58^{\circ}15'$  and Douglas. The projection is in pencil and is approximate. The depths are generally borne out by the present survey except in the northern portion where a shoaling of 2 to 10 fms. is noted and is due to silting from the rock dump just northward. The present survey should supersede this survey in future charting.

c. H-3673 (1914).

This 1:5,000 scale survey covers the delta of Sheep Creek. The sheet contains no projection. The sounding lines are short and extend about 150 m. outside the low water line. The present survey depths vary from 1 to 10 fms. or more shoaler and should supersede this survey in future charting.

d. H-4201 (1921) W.D.

This 1:20,000 scale sheet contains both standard hydrography and wire drag. The drag work extends southward from Juneau. The hydrography covers the area between Juneau and Salmon Creek. One or more inshore sounding lines was also run on both sides of the channel in the area southward of Juneau.

- (1). The present survey depths between Juneau and Salmon Creek vary  $1/2$  to 1 fm. shoaler except in the vicinity just westward and WNW of Juneau where a shoaling of 5 to 7 fms. has occurred. No important changes are noted in the inshore lines southward of Juneau except in the vicinity of Rock Dump, the high water portion of which extends 450 m. into the channel.
- (a). The rock awash (charted) in lat.  $58^{\circ}15.7'$  long.  $134^{\circ}21.35'$  is incorrectly represented. It originates with a minus  $1/2$  foot sounding on line 103g (green) which is unaccompanied by a bottom characteristic and falls on the low water line on the present survey. Other soundings of  $1/2$  and  $4\ 1/2$  feet on the same line (pos. 102-103g) further show that the line just covers the outer tip of the shoal area clearly shown here on the present survey and that no specific rock should be inferred from the sounding records. The rock awash representation should be expunged from the chart.
- (b). The rock awash (charted) in lat.  $58^{\circ}14.9'$  long.  $134^{\circ}20.1'$  was not verified on the present survey. The original plotting of the rock was from a note in the Guide Launch record "rock baring 4 feet, 80 feet inshore" between positions 28E and 29E (red) with time 1:05 and 1:10 respectively. The recorded time for the note, however, was  $1:03\frac{1}{2}$ . Whether it is assumed that the latter time is correct or whether it is assumed that  $1:08\frac{1}{2}$  was intended, in either plotting, no such rock was located by the present survey. Since the wire drag party located the rock during a 9 foot tide when it was baring 4 feet, the present survey party would have seen the rock if there was such a rock since they were in the immediate area at tides of 5 and 7 feet and on one line at a minus 1 foot tide. A possible explanation of the discrepancy is that the drag party observed a rock at  $1:08\frac{1}{2}$  but that their estimated distance was in error and that actually they were observing the rocky ledge located on the present survey in this vicinity opposite signal "THREE". The amount that this ledge bares at low water is in agreement with what the wire drag party observed. The rock as charted should be disregarded in future charting.

- (2). The effective drag depths do not conflict with the present survey information except in the vicinity of the Rock Dump where the extensive dumping and offshore shoaling nullifies the previous drag work. In addition, three wire drag soundings of 60, 73 and 77 feet obtained on the northeastern inshore limits of the drag work are not being carried forward as they fall in depths one to two fms. shoaler on the present survey.

Within the area covered, the present survey completely supersedes the hydrography only on this survey.

8. Comparison with Chart 8235 (New Print dated February 15, 1935).

a. Hydrography.

Hydrography shown on the chart originates with surveys discussed in previous paragraphs of this review except the following reported information.

- (1). The charted  $3\frac{1}{2}$  fms. off the Rock Dump (lat.  $58^{\circ}17.2'$  long.  $134^{\circ}23.8'$ ) originates with Chart Letter 284 (1933). Large scale plotting based on information contained in the letter places it in comparable depths on the present survey. It should be superseded by the present survey in future charting.
- (2). The charted  $1\frac{1}{2}$  fms. just south of the Rock Dump (lat.  $58^{\circ}17.1'$  long.  $134^{\circ}23.5'$ ) originates with Chart Letter 568 (1936) and is advance information received from the Chief of Party of the present survey. The shoal is described as having a least depth of approximately 10 feet ( $1\frac{4}{6}$  fms.) at M.L.L.W., one foot being dropped in charting. The difference of 2 feet between the reported  $1\frac{4}{6}$  fms. and the final depth of 2 fms. is due to the estimated amount of the tide. The present survey delineation should be used in future charting.

b. Aids to Navigation.

Beacons located on the present survey are in the same positions as charted and satisfactorily mark the features intended.

The two charted buoys in lat.  $58^{\circ}17'$  long.  $134^{\circ}24'$  were established subsequent to the present survey. (Authority: L.H.N. to M. 50, dated Dec. 9, 1936). These correctly mark the westernmost edge of the shoal areas shown here on the present survey.

9. Field Plotting.

Field protracting and plotting were satisfactory and conform to the requirements of the Hydrographic Manual.

10. Doubtful Soundings.

The 21 fm. sounding in lat. 58°17.8' long. 134°24.4' which is surrounded by depths of 17 fms., even bottom on the present survey (H-6177b) is probably too deep since the present survey shows no evidence of any holes in this area. Since this is not a sufficient basis for rejection of this sounding it is being retained, but should not be used for charting purposes.

11. Additional Field Work Recommended.

This is an excellent survey and no additional field work is required.

12. Note to Compiler.

Attention is called to the following:

- a. Paragraph 8b of this review regarding aids to navigation established subsequent to the present survey.
- b. H. R. Document No. 249 (75th Congress, 1st Session) which contains hydrography of several areas which in general fall inshore of the inshore limits of the present survey.
- c. Paragraph 7d(1)(a)&(b) of this review regarding two rocks awash which should be deleted from the chart.
- d. Paragraph 10 of this review regarding the doubtful 21 fms. (H-6177b) which should not be charted.

13. Superseded Prior Surveys.

Within the area covered, the present survey supersedes the following surveys for charting purposes:

- H-2058 (1890) In part.
- H-3376 (1912) Entirely.
- H-3673 (1914) Entirely.
- H-4201 (1921) W.D. (Hydrography only) In part.

14. Reviewed by Harold W. Murray, July 22, 1937.  
Inspected by A. L. Shalowitz.

Examined and approved:

*C. K. Green*  
Chief, Section of Field Records.

*L. O. Follett*  
Chief, Division of Charts.

*Fred. L. Peacock*  
Chief, Section of Field Work.

*Glud*  
Chief, Division of H. & T.

N. 6177<sup>a</sup> Applied to Chart 8202 - April 1938 - J.W.S.  
b + c not applied (scale of 8202 too small)

H 6177 a, b, c Applied to drawing of Chart 8235 - Oct. 14, 1938 - J.W.S.

Applied to Reconstruction of Chart 8235 2-28-40 CRBL

Applied to Extension of new Inset of Chart 8235 6/17/64 J.J. Streiffer