

6827

6827

<p>Form 504</p> <p>U. S. COAST AND GEODETIC SURVEY</p> <p>DEPARTMENT OF COMMERCE</p> <p>DESCRIPTIVE REPORT</p>	
Type of Survey	HYDROGRAPHIC
Field No.	2M-443
Office No.	H-6827
<p>LOCALITY</p> <p>State..... S. E. Alaska</p> <p>General locality..... Wrangell Narrows</p> <p>Locality..... North Flat</p>	
<p><u>194 3</u></p> <p>CHIEF OF PARTY</p> <p>Charles Pierce</p>	
<p>LIBRARY & ARCHIVES</p> <p>DATE JUN 9 1945</p>	

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 6827

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. 2M 443

REGISTER NO. H-6827

H6827

State S. E. Alaska

General locality Wrangell Narrows

Locality North Flat
~~Channel from Green Pt. Beacon south to N Flat Lt. No. 28~~

Scale 1-2000 Date of survey May 10, 11 and 12, 1943

Vessel WESTDAHL

Chief of Party Charles L. Pierce

Surveyed by Curtis Le Fever

Protracted by Curtis Le Fever - R.J. Christian

Soundings penciled by Curtis Le Fever - R.J. Christian

Soundings in ~~fathoms~~ feet

Plane of reference MLLW

Subdivision of wire dragged areas by

Inked by R.H. Carstens

Verified by R.H. Carstens

Instructions dated Sept. 12, 1942 - Feb 13, 1943
Director's wire of April 28, 1943

Remarks:

H6827

DESCRIPTIVE REPORT

TO ACCOMPANY

Hydrographic sheet of investigation of shoaling in Wrangell Narrows.

SHEET NO. FIELD 2M-443
H-6827

Instructions dated September 12, 1942 (1995 WEI) Feb. 13, 1943 (1975 SE 4) and wire dated April 28, 1943.

SURVEY METHODS:

Launch No. 88 with a portable depth recorder type No. 808A was used almost entirely for this survey. The hydrography was all accomplished at or near slack water. Bar checks and lead line comparisons were taken only at slack water and so were usually during the sounding period rather than at the beginning of the day's work. Part of one day on sheet 2M-243 the lead line was used instead of the fathometer. ^{H-6827 (1943)} The lead line was also used for a short period on sheet 2M-443. The speed of the recording stylus on the fathometer was checked by a stop watch as the tachometer was not functioning properly.

*On H-6827 fathometer
sigs taken along
with H.L. sigs
were plotted
on the sheet.*

AUTHORITY FOR SURVEY:

Director's Wire of April 28, 1943.

LIMITS OF SURVEY:

Navigable channel and its edges from abeam of Green Point Beacon south to Wrangell North Flat Light No. 28. This includes the area where the USS Heather was reported hitting bottom (no date given).

COMPARISON WITH PREVIOUS SURVEYS:

This survey compares in all areas with the depths shown on the chart. There is no indication of any shoaling in the channel. *Deepening at northern end.*

TIDE REDUCERS:

Reducers were determined from a staff installed on Light FG No. 31, its elevation being determined from levels run from bench marks recovered in the vicinity of Finger Point.

^{H-6827} For the area covered by sheet 2M-443, a staff was installed on Beacon No. 33 and levels run to the recovered benchmarks at Finger Point. An observer read the staff at the times when hydrography was being done and reducers determined from these observations. The gage at Anchor Point was still in operation at this time but its record was not used for this sheet.

CURRENTS:

This area is the meeting place of the tides running from both north and south in the Narrows. Near North Flat Light No. 30 it was found there was no current at any time. We could take a bar check here at any time of day. Along the east edge of the channel and just south of Light No. 30, some stray soundings were obtained on the fathometer which indicated floating masses of considerable extent. This was the only one of several areas surveyed that such soundings were obtained. They were obtained on adjoining lines which indicated their extent and also that they were not instrumental errors. To prove or disprove these soundings several leadline lines were run over the area and no shoal indications were obtained. Two men were sounding alternately and the soundings taken every 10 seconds. The launch was stopped exactly on the spots in some cases but no shoal depths were obtained with the lead. At this time and in this area of no current there is an accumulation on the surface of a small floating seaweed. This weed accumulates in masses being carried in the current from both north and south and settle below the surface as it decays. It is thought that the shoal strays on the fathogram in this area is from some such masses of seaweed. They are evidently very porous as the lead must have passed through them. They would not be solid enough for a ship to notice when passing through or over.

CONCLUSION:

It is thought that the HEATHER dragged along the shoal area north of Light 30 on the east side of the channel. That light was removed when we arrived in the narrows and we could see keel marks along the edge of the mud bank at minus tides. Some vessel had been out of the channel and dragging bottom.

Respectfull submitted,

Curtis Le Fever,
H. & G. Engr.

Approved and Forwarded:

Charles Pierce,
Chief of Party,
Comdg., WESTDAHL

200
HRE

TIDE NOTE FOR HYDROGRAPHIC SHEET

June 17, 1943

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. R. EDMONSTON

Plane of reference approved in
1 volumes of sounding records for

HYDROGRAPHIC SHEET 6827

Locality Wrangell Narrows S.E. Alaska

Chief of Party: Charles Pierce in 1943
Plane of reference is mean lower low water reading
0.0 ft. on tide staff at Finger Pt.
8.6 ft. below B. M. 7

Height of mean high water above plane of reference is 15.7 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

H6827

Remarks

Decisions

	Remarks	Decisions
1		
2		565325 U.S.F.B
3		
4		^
5		4
6		
7		
8		
9		
10	Location of tide staff	565325
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GEOGRAPHIC NAMES

Survey No. **H6827**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>S.E. Alaska</u>											1
<u>Wrangell Narrows</u>											2
Green Point Beacon											3
<u>North Flat It</u> Is											4
<u>South Flat</u>											5
											6
											7
											8
											9
<u>Finger Point</u>											10
											11
											12
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Names underlined in red approved
by L. Heck on 3/24/44

Surveys Section (Chart Division)

H6827

HYDROGRAPHIC SURVEY NO.

Records accompanying survey:

Boat sheets ¹...; sounding vols. ¹...; wire drag vols. 0...;
 bomb vols. 0...; graphic recorder rolls ² half rolls with 6824 & 25
 special reports, etc. none.....

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

Number of positions on sheet	241
Number of positions checked	2
Number of positions revised	1
Number of soundings recorded	1734
Number of soundings revised (refers to depth only)	145 <i>145 sdgs replaced by fathometer sdgs</i>
Number of soundings erroneously spaced	0
Number of signals erroneously plotted or transferred	0
Topographic details	Time	0... ..
Junctions	Time	0... ..
Verification of soundings from graphic record	Time	3 1/2 hr

Verification by *R.H. Carstens*..... Total time 23 hr Date *March 11, 1943*

Review by *R.H. Carstens*..... Time 9 hr Date *March 15, 1944*

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY }
 DESCRIPTIVE REPORT } No. H **H6827**
 PHOTOSTAT OF } No. T

{ received **June 9, 1943**
 { registered
 { 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	Pg 3	CKG	
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox
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DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6827

Field No. 2M-443

S. E. Alaska, Wrangell Narrows, North Flat
Surveyed in May 1943; Scale 1:2,000
Instructions dated September 12, 1942
and February 13, 1943

Soundings:

Hand lead
808 Fathometer

Control:

Three-point fix on shore signals

Chief of Party - Charles Pierce
Surveyed by - Curtis LeFever
Protracted by - Curtis LeFever, R. J. Christman
Soundings plotted by - Curtis LeFever, R. J. Christman
Verified and inked by - R. H. Carstens
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston, March 29, 1944

1. Shoreline and Signals

There are no contemporary topographic surveys of this area. Signals originate with triangulation 1902-43 and sextant fixes recorded in the sounding records.

2. Sounding Line Crossings

Satisfactory.

3. Submarine Relief

The usual depth curves were satisfactorily drawn.

There are no conspicuous submarine features revealed within this area.

4. Junctions with Contemporary Surveys

No contemporary surveys adjoin the present survey.

5. Comparison with Prior Surveys

a. H-1525b (1881) 1:25,550
H-1616 (1884) 1:20,000
H-1737 (1886) 1:30,000

These early reconnaissance surveys contain only a few channel depths and are in general agreement with the present survey. They should be superseded by the present survey within the common area.

- b. H-3209 (1910) 1:5,000
H-3212 (1910) 1:5,000

In this vicinity the meeting of tides from both entrances of Wrangell Narrows causes an unstable condition of the bottom. The channel has deepened as much as 15 feet in places as, for example, in Lat. $56^{\circ}41'30''$, Long. $132^{\circ}56'58''$ where present depths of about 30 feet fall in prior depths of about 15 feet. The present survey should supersede these prior surveys within the common area.

- c. H-4960 (1929) 1:5,000

The southern half of the present survey is in good agreement with this prior survey. In the northern half present survey depths are, in places, from 2-4 feet deeper than prior depths. This deepening is probably caused by the current eroding the soft sticky bottom. Because of these changes the present survey should supersede this prior survey within the common area.

6. Comparison with Chart 8170 (latest print date 7-2-43)

- a. Hydrography

The charted hydrography within the limits of the present survey originates with the previously mentioned surveys which need no further consideration.

- b. Aids to Navigation

The survey positions of aids to navigation are in satisfactory agreement with the charted positions and satisfactorily mark the features intended.

7. Condition of Survey

Satisfactory.

8. Compliance with Instructions for the Project

Satisfactory.

9. Additional Field Work Recommended

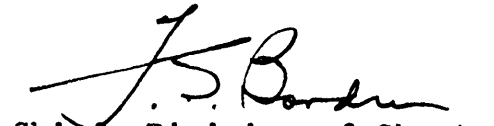
None. No indication was found of dangerous shoaling within the limits of the survey.


10. Superseded Surveys


H-1525b	(1881)	in part
H-1616	(1884)	" "
H-1737	(1886)	" "
H-3209	(1910)	" "
H-3212	(1910)	" "
H-4960	(1929)	in part, except for bottom characteristics

Examined and approved:


Chief, Surveys Branch


Chief, Division of Charts


Chief, Section of Hydrography


Chief, Division of
Coastal Surveys

applied to chart 8170 J.M.A. Aug. 2, 1944