

6826

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey ..... Hydrographic

Field No. 2M-343 ..... Office No. H-6826

LOCALITY

State ..... S. E. Alaska

General locality ..... Wrangell Narrows

Locality ..... Off North Point

194 3

CHIEF OF PARTY

Charles Pierce

LIBRARY & ARCHIVES

DATE JUN -- 9 1948

6826

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H-6826

H6826

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 343

REGISTER NO. H-6826

State S. E. Alaska

General locality Wrangell Narrows

Locality Channel from stream of Spruce Pt. Lt. No. 10 to Lt. No. 9, 1943  
*Off North Point*

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

Vessel WESTDAHL

Chief of Party Charles Pierce

Surveyed by Curtis Le Fever

Protracted by Curtis Le Fever R. J. Christman

Soundings penciled by Curtis Le Fever R. J. Christman

Soundings in ~~fathoms~~ feet

Plane of reference MLW

Subdivision of wire dragged areas by

Inked by R. H. Carstens

Verified by R. H. Carstens

Instructions dated Sept. 12, 1942  
Feb. 13, 1943

Remarks:

H6826

DESCRIPTIVE REPORT

TO ACCOMPANY

Hydrographic sheet of investigation of shoaling  
in Wrangell Narrows

SHEET NO. FIELD 2M-343, H-6826

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. 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.

LIMITS OF SURVEY:

Navigable channel from abeam of Spruce Pt. (Light) No. 10, 1943, southwest to abeam of Light No. 9, 1943. This covers the area in which a vessel was reported to have touched bottom in mid-channel on March 11, 1943. The least depth obtained in that area is 24 feet at MLLW.

COMPARISON WITH PREVIOUS SURVEYS:

Soundings are transferred to <sup>the boat</sup> this sheet from H-4996 and H-5004 <sup>(1942)</sup> in red. The soundings in all areas compare very closely between the two surveys.

CONCLUSION:

Any obstruction touched by a vessel in this area must have been floating as the depths are well below the draft of vessels using the narrows and the deep water is quite wide where the grounding was reported.

TIDE REDUCERS:

An automatic portable gage was maintained at Anchor Point throughout the surveys in the Narrows. In this area it was noted that the water raised or lowered as much as 5 feet in one hour. It was not feasible to install the gage where it would get all the minus tides without making a crib offshore. A secondary staff was

2.

installed on a single driven pipe about 200 feet outside the main staff and the relation between the two staffs determined. A tide observer read the auxiliary staff at any time when work was being done and the water level was below the main staff.

Some of the reducers from the hydrography and drag strips were determined by taking the highs and lows from the marigram and interpolating between them. The crossing of lines and the comparison with depths of pipe drag and hydrography will no doubt be closer in agreement when all reducers are taken directly from the marigrams for the smooth sheets.

Respectfull submitted,

Curtis Le Fever,  
H. & G. Engr.

Approved and Forwarded:

Charles Pierce,  
Chief of Party,  
Comdg., WESTDAHL

*pac*  
*ME*

## 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 6826

Locality Wrangell Narrows, S.E. Alaska

Chief of Party: Charles Pierce in 1943  
Plane of reference is mean lower low water reading  
0.9 ft. on tide staff at Anchor Point  
15.7 ft. below B. M. 1

Height of mean high water above plane of reference is 15.0 feet.

Condition of records satisfactory except as noted below:

*E. K. Green*

Chief, Division of Tides and Currents.

H6826

Remarks

Decisions

	Remarks	Decisions
1		
2		565325 0.5.6.8
3		..
4		
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9		
10	Location of tide staff.	565325
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GEOGRAPHIC NAMES

Survey No. **H6826**

Name on Survey	Source										No.
	A	B	C	D	E	F	G	H	K		
<u>S.E. Alaska</u>											1
<u>Wrangell Narrows</u>											2
<u>North Point</u>											3
											4
											5
											6
											7
											8
											9
<u>Anchor Point</u>											10
											11
											12
											13
											14
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NOTES: INDEXED BY L. HECK ON 3/24/44

Surveys Section (Chart Division)

H 6826

HYDROGRAPHIC SURVEY NO. ....

Records accompanying survey:

Boat sheets  $.1$ ...; sounding vols.  $.1$ ...; wire drag vols.  $.0$ ...;  
 bomb vols.  $.0$ ...; graphic recorder rolls  $.1$ ... with H 6824  
 special reports, etc. <sup>None</sup>.....  
 .....

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

Number of positions on sheet		184	
		.....	
Number of positions checked		5	
		.....	
Number of positions revised		3	
		.....	
Number of soundings recorded		1460	
		.....	
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	9	
		.....	
Verification of soundings from graphic record	Time	0	
		.....	
Verification by <i>R.H. Casstens</i> .....	Total time	16.4	Date <i>March 8, 1944</i>
		.....	
Review by <i>R.H. Casstens</i> .....	Time	9	Date <i>March 15, 1944</i>
		.....	



# MEMORANDUM

## IMMEDIATE ATTENTION

SURVEY  
 DESCRIPTIVE REPORT  
 PHOTOSTAT OF

}

No. H **H6826**  
 No. T

{ received June 9, 1943  
 registered JUN 22 1943  
 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			
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40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R.W. Knox
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*RPK*

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6826

Field No. 2M-343

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

Soundings:

808 Fathometer

Control:

Three-point fix on shore signals

Chief of Party - Charles Pierce  
Surveyed by - Curtis LeFever  
Protracted by - Curtis LeFever and R. J. Christman  
Soundings plotted by - Curtis LeFever and R. J. Christman  
Verified and inked by - R. H. Carstens  
Reviewed by - R. H. Carstens  
Inspected by - H. R. Edmonston, March 28, 1944

1. Shoreline and Signals

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

2. Sounding Line Crossings

Satisfactory.

3. Submarine Relief

No conspicuous submarine features are revealed in this area.

The usual depth curves were satisfactorily drawn.

4. Junctions with Contemporary Surveys

There are no contemporary, adjoining surveys.

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-3213 (1910) 1:5,000

In the northern part of the present survey the channel has been dredged 2-5 feet deeper since the date of this prior survey. Within the common area the prior survey should be disregarded for charting.

- c. H-5004 (1929) 1:5,000

Agreement with this prior survey is generally within 1-2 feet. The least depth within the channel has been reduced from a prior depth of 20-1/2 feet to the present depth of 19 feet. The present survey is adequate to supersede the prior survey within the common area.

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

- a. Hydrography

The charted hydrography within the area of the present survey originates with the previously discussed 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 adequately mark the features intended.

- c. Controlling Depths

Several present survey depths of 20 feet fall within the edges of the charted 21-ft. dredged channel.

7. Condition of Survey

Satisfactory.

8. Compliance with Instructions for the Project

Satisfactory except that no crosslines were run.

9. Additional Field Work Recommended

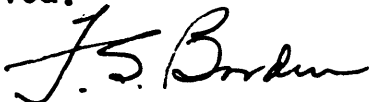
None. No indication was found of excessive shoaling within the channel.

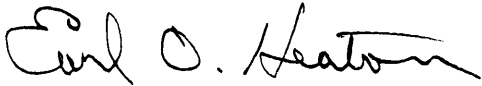
10. Superseded Surveys


H-1525b (1881) in part  
H-1616 (1884) " "  
H-1737 (1886) " "  
H-3213 (1910) " "  
H-5004 (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 E.M.A. July 28, 1948