

6824

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Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey ..... HYDROGRAPHIC .....

Field No. 2M-143 ..... Office No. 6824 .....

LOCALITY

State ..... S. E. Alaska .....

General locality ..... Wrangell Narrows .....

Locality ..... Off Burnt Island .....

194 3

CHIEF OF PARTY

Charles Pierce

LIBRARY & ARCHIVES

DATE ..... JUN -- 9 1943 .....

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. 6824  
H6824

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 113

REGISTER NO. 6824

State S E ALASKA

General locality WRANGELL NARROWS

Locality Off Burnt Island  
~~VICINITY OF BURNT ID. REEF LT. No. 6 AND BURNT ID.~~

Scale 1:2,000 Date of survey May 6 & 7, 1943

Vessel WESTDAHL

Chief of Party Charles Pierce

Surveyed by Curtis Le Fever

Protracted by Curtis Le Fever <sup>Treadwell</sup> ~~R.J. Christman~~

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

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 and letter Feb. 13, 1943

Remarks: <sup>H-6823(1943)</sup>  
~~Best sheet only. See pipe drag survey of channel~~  
in same area by this party.

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DESCRIPTIVE REPORT

TO ACCOMPANY

Hydrographic sheet of investigation of shoaling Wrangell Narrows.

Sheet No. Field 2M-143, H-6824

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 fathometer was not functioning properly.

AUTHORITY:

Letter dated February 13, 1943, second paragraph.

LIMITS:

Channel and its edges from 1200 feet north of Burnt Id. Reef Light No. 6, south to the southern end of Burnt Id. This covers the area in which the S. S. PRINCESS NORAH was reported to have struck a submerged object on Dec. 5, 1942 when in mid channel.

COMPARISON WITH PREVIOUS SURVEYS:

Soundings from H-4996<sup>(1929)</sup> were transferred to this sheet in red. The present soundings compare very well with those transferred. There are no radical differences. The main channel appears to have deepened slightly in some areas. On the shoal which makes out directly south of Burnt Id. Reef Light No. 6, a rock with a least depth of 5 feet at mean lower low water was found. It bears 195° true 235 feet from Burnt Id. Reef Lt. No. 6. The previous survey showed a least depth of 12 feet in this area.

CONTROL:

At the time the hydrography was done here the navigation aids had not been checked by triangulation and Burnt Id. Lt. was assumed to be correct in location as it was heavy concrete structure

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2.

on the island. It was found later to have been moved from its old position a distance of about 35 feet which will shift the positions of some of the south ends of the lines considerable when smooth plotted and no doubt make better agreement in any crossing lines. Burnt Id. Beacon also changed in position from that used when the hydrography was done.

TIDE REDUCERS:

Reducers determined from the gage at Anchor Point were used for this area.

Respectfully submitted,

Curtis Le Fever,  
H. & G. Engr.

Approved and Forwarded:

Charles Pierce,  
Chief of Party,  
Comdg., WESTDAHL

*RAC  
HNE*

## 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 6824

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.

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Remarks

Decisions

	Remarks	Decisions
1		
2		565 325 U.S.G.B
3	For title	"
4		"
5		
6		
7		
8		
9		
10		
11		
12	Location of tide staff	565325
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES  
 Survey No. **H6824**

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>S.E. Alaska</u>											1
<u>Wrangell Narrows</u>											2
<u>Burnt Island</u>											3
<u>Burnt Island Reef</u> <del>RE</del>											4
											5
											6
											7
											8
											9
											10
											11
<u>Anchor Pt.</u>											12
											13
											14
											15
											16
											17
											18
											19
											20
											21
											22
											23
											24
											25
											26
											27

Names underlined in red approved  
 by L. Heck on 3/25/44

Surveys Section (Chart Division)

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HYDROGRAPHIC SURVEY NO. ....

Records accompanying survey:

Boat sheets ..1.; sounding vols. 1...; wire drag vols. ..0.;  
 bomb vols. ...<sup>0</sup>...; graphic recorder rolls 2. (One combines with 6826,  
 the other with 6827)  
 special reports, etc. ....None.....  
 .....

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

Number of positions on sheet	203
	.....
Number of positions checked	..7..
Number of positions revised	..5..
Number of soundings recorded	..1493
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 ..0..
Verification of soundings from graphic record	Time ...0..

Verification by *R.H. Carstens* Total time 3.8 hr Date *Feb 28, 1944*

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



# MEMORANDUM

## IMMEDIATE ATTENTION

H6824

SURVEY }  
 DESCRIPTIVE REPORT } No. H 6824  
 PHOTOSTAT OF } No. T

{ received June 8, 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			
25			
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox
----	------------

*v. R. Knox*

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6824

Field No. 2M-143

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

Soundings:

Control:

808 Fathometer

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 24, 1944

1. Shoreline and Signals

There are no contemporary topographic surveys of this area. Signals originate with triangulation of 1910-43.

2. Sounding Line Crossings

Satisfactory.

3. Submarine Relief

No conspicuous features of submarine relief were 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  
H-3214 (1910) 1:5,000

Channel depths have been increased as much as 12 feet in spots, by dredging. The present survey should supersede these prior surveys within the common area.

- c. H-4996 (1929) 1:5,000

Agreement with this prior survey is generally within 1 - 2 feet. A 5-ft. depth was found about 70 meters S. by W. of Lt. 6 in prior depths of 12 feet. The present survey is considered adequate to 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 area of the present survey originates with the previously discussed surveys which need no further consideration.

- b. Aids to Navigation

The present survey positions of the aids to navigation are in satisfactory agreement with the charted positions and satisfactorily mark the features intended except that a buoy placed opposite the 5-ft. shoal south of Burnt Island Reef Light No. 6 would more satisfactorily mark the limit of the shoal than the present light.

- c. Controlling Depths

A present survey depth of 19 feet in Lat.  $56^{\circ}36'34''$ , Long.  $132^{\circ}58'17''$  falls within the 21-ft. charted channel.

7. Condition of Survey

Satisfactory.

8. Compliance with Instructions for the Project

Satisfactory.

9. Additional Field Work Recommended

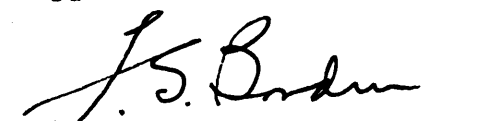
None. No indication was found of excessive shoaling within the channel.

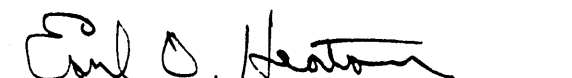
10. Superseded Surveys


H-1525b	(1881)	in part
H-1616	(1884)	" "
H-1737	(1886)	" "
H-3213	(1910)	" "
H-3214	(1910)	" "
H-4996	(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

S.M.A.

July 28, 1944