

7725

Diag'd. on Diag. Ch. No. 8851-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey **HYDROGRAPHIC**

Field No. **DE-1448** Office No. **H-7725**

LOCALITY

State **Alaska**

General locality **Prince William Sound**

Locality **Orca Bay, off Sheep Point**

194 8

CHIEF OF PARTY

H. A. Karo

LIBRARY & ARCHIVES

DATE **Sept. 7, 1949**

7725

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. H-7725

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.

REGISTER No. H-7725

Field No. DER-1448

State Alaska

General locality Prince William Sound

Locality Orca Bay, off Sheep Point

Scale 1:10,000 Date of survey April 28 - 30, 1948

Instructions dated 5 February 1948

Vessel Ship DERICKSON

Chief of party H. Arnold Karo

Surveyed by H. F. Garber

Soundings taken by ~~catanometer~~ catanometer, graphic recorder, hand lead, ~~and~~

Protracted by Earvin K. Loop

Soundings penciled by Earvin K. Loop

Soundings in fathoms ~~and~~ at ~~MLLW~~ MLLW

REMARKS:

DESCRIPTIVE REPORT

To Accompany Sheet DER-1448

Sheep Point, Prince Wm. Sound
Alaska

Scale 1 - 10,000

Ship DERICKSON H. Arnold Karo

April 1948

1. AUTHORITY

Hydrography was executed in accordance with supplemental instructions dated 5 February 1948, Project CS-277.

2. SURVEY LIMITS & DATES

The area covered by the sheet is that area in Orca Bay immediately adjacent to Sheep Point. The purpose of the survey was to prove or disprove the existence of a reported rock at Lat. $60^{\circ} 36.61$, Long. $146^{\circ} 02.4'26$

3. VESSEL AND EQUIPMENT

A motor whaleboat operating from the ship was used for all the sounding. 808 depth recorder No. 56, calibrated at 820 fathoms per second, was used exclusively for the echo sounding. Hand lead soundings were taken on the inshore rocks.

4. TIDE STATION

Height of tide for tide reduction was obtained from the Standard Automatic tide gage maintained at Cordova.

5. CONTROL STATIONS

The triangulation is on the Valdez datum. Hydrographic signals were located by sextant cuts using stations Sheep 1899, Spruce 1899 and Up 1913 as control.

6. SHORELINE AND TOPOGRAPHY

The shoreline was not required and none was determined.

7. SOUNDINGS

The 808 fathometer No. 56 was used for all the echo sounding. Since the motor whaleboat has a very shallow draft with the transmitting and receiving units only a few inches below the water line, it was found that no index correction for draft was necessary. (See special fathometer report for further details and computations). No phase corrections were necessary as all the sounding was done on the "A" scale. *Fath. Report filed with H-7161*

As the bottom is comparatively even, fathometer and tide corrections were entered to 0.1 fathoms.

8. CONTROL OF HYDROGRAPHY

All positions were determined by three point sextant fixes. ✓

9. ADEQUACY OF SURVEY

The survey definitely disproves the existence of the reported rock off Sheep Point, shown on Chart 8520 at Lat. 60° 36.6', Long. 146° 02.4'.

10. COMPARISON WITH PRIOR SURVEYS

Sheet H-3553, 1913 was not available for comparison with the present survey. ✓

11. COMPARISON WITH CHART 8520

The sunken rock shown on Chart 8520 at Lat. 60° 37.0^{15'}, Long. 146° 01.7^{20'} is apparently too far offshore. The charted position falls on the 10 fm. curve on the present survey. ✓ *See (P. 69) of Review*

* 0.9' A rocky shoal lies 150 meters ENE of the charted position with a least depth of 1.0 fms. at MLLW. This shoal covers considerable area, and thirty minutes was spent drifting over the area sounding with the hand lead and fathometer.

The 2 fathom sounding *in 2-4 fm depths* on Chart 8520, Lat. 60° 36.75', Long. 146° 01.75' falls on the 5 fathom curve of the present survey. Thirty minutes were spent drifting over the area, sounding with a hand lead, and a least depth of ~~2.2~~^{12*} fms. at MLLW was found. 50 meters SE of the charted 2 fathom sounding; positions 57 and 58C. A 4.5 fathom sounding was obtained 100 meters SW of the charted 2 fathom sounding. *Charted 2 fm. sdg. substantiated by present survey. 48*

* 12' * 11' An eleven fathom shoal was found at Lat. 60° 36.87', Long. 146° 02.50' and a twelve fathom shoal was located at Lat. 60° 36.9', Long. 146° 02.77'. These shoals are not indicated on Chart 8520.

The remaining scattered soundings on Chart 8520 are in agreement. ✓

^{26'} The position of the reported sunken rock at Lat. 60° 36.6', Long. 146° 02.4' falls just outside the thirty fathom curve in 33 fathoms. Close development failed to indicate any shoaling in the vicinity, and it is recommended that the rock be expunged from the chart. *Rock has been deleted from chart (print date 1/10/49) (See Review P. 69.)*

12. DANGERS AND SHOALS

See paragraph No. 11 above. ✓ *(P. 395 (1948))*

* smooth sheet depths.

13. COAST PILOT INFORMATION

Adequate as written. ✓

14. AIDS TO NAVIGATION

None

15. LANDMARKS FOR CHARTS

None

16. GEOGRAPHIC NAMES *814*

No new names are recommended. ✓

Respectfully submitted

Dale E. Fisher

Dale E. Fisher
Ensign, USC&GS

Approved:

H. Arnold Karo

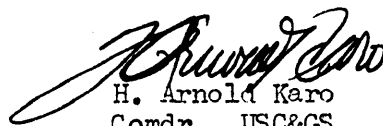
H. Arnold Karo
Comdr., USC&GS
Chief of Party

APPROVAL SHEET FOR SHEET DER-1448

The boat sheet and records have been examined and approved by me. ✓
The boat sheet was inspected daily while the work was in progress.

The hydrography definitely disproves the existence of a sunken rock
off Sheep Point as indicated on Chart 3520 at Lat. $60^{\circ} 36.61'$, Long. 146°
 $02.4'$ and no further hydrography is recommended.

26



H. Arnold Karo
Comdr., USC&GS
Chief of Party

List of Stations on Sheet DE-1448

Name Used in Hydrographic Survey.	Origin of Station
.Cent	8 Meters from Station Up 1913(See Vol. 1, a day, page 3.)
Sheep	Sheep 1899
Spruce	Spruce 1899

Hydrographic Signals located by Sextant Cuts

Hank

Nip

Ram

De 1448

Prince William Sound
Orca Bay Sheep Point

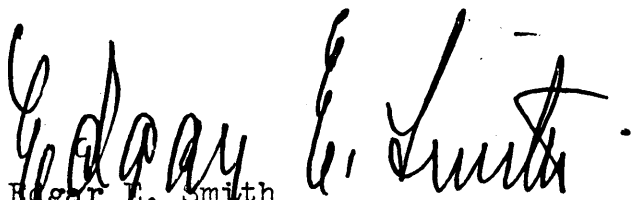
Processing Office Notes.

The projection is hand made on K & E paper "Paragon".
This is not the embossed, Germany made paper.

Datum: Valdez.

The shoalest depths shown on the boat sheet are
hand lead soundings. The fathometer when corrected gave
slightly shoaler depths.

The report by the field party covers all necessary
subjects.


Edgar E. Smith
Cart. Engr. 8/24/49

De 1448

Prince William Sound
Orca Bay Sheep Point

Geographic names pencilad on smooth sheet.

Prince William Sound

Orca Bay

Sheep Bay

Sheep Point

Alaska
Prince William Sound
Orca Bay

TIDAL NOTE TO ACCOMPANY SHEET DER-1448

The hourly heights from the standard automatic tide gage at Cordova, Alaska were used for the reduction of soundings. No time or height corrections were applied.

MLLW on the tide staff is 8.4 feet.

STATISTICS FOR HYDROGRAPHIC SHEET DER-1448

Ship DERICKSON

Project CS-277

Motor Whale Boat Hydrography

Vol. No.	Day Ltr.	Date	No. H.L. Sdgs.	No. Wire Sdgs.	No. of Pos.	Sta. Mi. Sdg. Line
I	a	28 April	- -	-2-	17	- -
I	b	29 April	- -	- -	201	32.4
I	c	30 April	4	- -	58	7.4

TOTAL			4	2	276	39.8

Area Squ. Stat. Miles 1.2

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography:~~

September 21, 1949

Division of Charts: R. H. Carstens

Plane of reference approved in
1 volumes of sounding records for

HYDROGRAPHIC SHEET 7725

Locality Orca Bay, Prince William Sound, Alaska

Chief of Party: H. A. Karo in 1948

Plane of reference is mean lower low water, reading

8.4 ft. on tide staff at Cordova

36.9 ft. below B. M. 2 (1929)

Height of mean high water above plane of reference is 11.5 feet.

Condition of records satisfactory except, as noted below:

E. C. McKay

Section

Chief, ~~Division of Tides and Currents.~~

GEOGRAPHIC NAMES

Survey No. H-7725

Name on Survey												
	A	B	C	D	E	F	G	H	K			
<u>Alaska</u>												1
<u>Prince William</u>		<u>Sound</u>								USGB		2
<u>Sheep Bay</u>												3
<u>Sheep Point</u>												4
<u>Orca Bay</u>										USGB		5
												6
												7
												8
												9
												10
												11
<u>Cordova</u>												12
												13
												14
												15
												16
												17
												18
												19
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												21
												22
												23
												24
												25
												26
												27

Names underlined in red are approved.
9-21-49. L. Heck

(location of tide gage)

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. *H-7725*

Records accompanying survey:

Boat sheets ¹.....; sounding vols. ¹.....; wire drag vols.;
 bomb vols.; graphic recorder rolls ...¹envel.
 special reports, etc.

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

Number of positions on sheet		259
	
Number of positions checked		58
	
Number of positions revised		1
	
Number of soundings revised (refers to depth only)		6
	
Number of soundings erroneously spaced		5
	
Number of signals erroneously plotted or transferred		0
	
Topographic details	Time	0
	
Junctions	Time	—
	
Verification of soundings from graphic record	Time	9
	

Verification by *Roland E. Latta*..... Total time *38 hrs.* Date *29 Sept. 1949*

Reviewed by *I. M. Zeskind*..... Time *9*.... Date *24 Feb. 1950*

5. Comparison with Prior Surveys

H-2501 (1900) 1:40,000
H-3553 (1913) 1:20,000

A comparison between the prior and present surveys reveals differences of 1-4 fms. in depths of 10-38 fms., as for example, in lat. $60^{\circ} 36.22'$, long. $146^{\circ} 02.74'$, where a prior depth of 33 fms. falls in present depths of 36-37 fms. These differences are attributed to slight inaccuracies in position of the prior sounding lines in an area of irregular bottom.

- (1) The sunken rock (charted) in lat. $30^{\circ} 37.15'$, long. $146^{\circ} 01.20'$ (chart datum), originating with H-2501 (1900), falls in present depths of 10-18 fms. Close development of this area on the present survey disproves the prior sunken rock. The present survey reveals a reef covered by 0.9 fms. about 180 meters east of the prior sunken rock.

With the addition of several bottom characteristics which have been carried forward, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 8520 (Latest print date 1/10/49)

A. Hydrography

The charted hydrography originates principally with the previously discussed surveys which need no further consideration.

- (1) The sunken rock previously charted in lat. $60^{\circ} 36.60'$, long. $146^{\circ} 02.26'$, originating with Chart Letter 814 (1935), has been deleted from the present chart in accordance with advance information of the present survey contained in Chart Letter 395 (1948). The present survey shows depths of 37 fms. here, and it is considered adequate to disprove the existence of the rock at this position.

The present survey supersedes the charted hydrography within the common area.

B. Aids to Navigation

There are no aids to navigation within the limits of the present survey.

7. Condition of Survey

- a. The sounding records and Descriptive Report are complete and comprehensive.
- b. The field plotting was accurately done.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

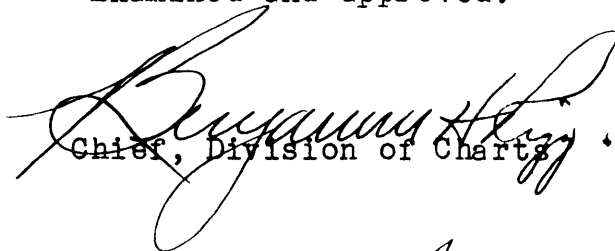
9. Additional Field Work Recommended

This is an excellent basic survey and no additional field work is recommended. Development to the low water line remains to be done when the survey of this area is resumed.

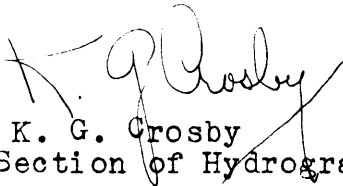
Examined and approved:



H. R. Edmonston
Chief, Nautical Chart Branch



Chief, Division of Charts



K. G. Crosby
Chief, Section of Hydrography



W. M. Scaife
Chief, Division of Coastal Surveys

