

4524

Form 504

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: SE Alaska

11-5613

DESCRIPTIVE REPORT.

Hyd Sheet No. (1) 4524

LOCALITY:

Chichagof I. ~ W. Coast

Dry Pass
Khaz. B. to ~~Imperial Passage~~

1925

CHIEF OF PARTY:

A. M. Sobieralski

4524

DEPARTMENT OF COMMERCE

U.S. Coast & Geodetic Survey.

E. Lester Jones, Director.

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SHEET #

West Coast of Chichagof Island,
S.E. Alaska
Scale 1-20000

***** *

Season of 1925

Steamer Surveyer

Date of Instructions Feb. 4, 1925.

A.M. Seberialski, H. and G.E.
Chief of Party.

①

Descriptive Report to Accompany Hydrographic Sheet of the
West Coast of Chichagof Island, S.E. Alaska. Field Sheet No.1.

GENERAL DESCRIPTION AND LIMITS.

The hydrography covered by this sheet extends from a line running west from the beach of Cape Dearborn for a distance of $2\frac{3}{4}$ miles (naut.) to a line running west (true) $\frac{3}{4}$ miles naut. north of Outer Rks. The work on this sheet extends from the beach to the 50 fathom curve which is generally 3 to 4 miles (naut.) from the beach.

The approach to Imperial Passage is covered by field sheet no.1A scale 1-10000.

The approach to South Passage is covered by this sheet. From Outer Rocks to White Sisters there are numerous low islets, rocks, and breakers.

OUTLYING DANGERS

1. Sunken Rock which breaks with a light swell,
292° true 1.9 miles from the larger of the Outer Rocks. ✓
2. Sunken Rock which breaks with a moderate swell,
296° true 1.9 miles from the larger of the Outer Rocks. ✓
3. Rock awash at $\frac{3}{4}$ tide,
301° true 2.1 miles from the larger of the Outer Rocks. ✓
4. Rock bare at high water, ✓
303° true 2.0 miles from the larger of the Outer Rocks. ✓
5. Sunken Rock which breaks with moderate swell, ✓
303° true 2.2 miles from the larger of the Outer Rocks. ✓
6. Sunken Rocks which break always, ✓
258° true 2.0 miles from Black Island. ✓
7. Rock awash at L.L.W. Breaks in heavy sea, ✓
264° true 1.7 miles from Black Island. ✓
8. Sunken Rock breaks with light swell, ✓
270° true 2.0 miles from Black Island. ✓
9. Rock awash at L.W. ✓
283° true 1.8 miles from Black Island. ✓

10. 16 ft. sheal rocky, breaks in heavy weather, ✓

285° true 2.9 miles from Imperial Passage light. ✓

Inshore DANGERS.

To the southeastward of a line running 180° true of White Sisters there are numerous breakers and rocks. The navigator, unless having local knowledge, should avoid this area.

The most important inshore dangers to be avoided are those off Edward Islands, South Passage, along the coast of Hegan and Hill Islands.

1. Rock awash at L.W. breaks with moderate sea, ✓
260° true 0.6 mile from Cape Edward Light. ✓
2. Rock awash at L.W. breaks with moderate sea, ✓
247° true 0.6 mile from Cape Edward Light. ✓
3. Sunken Rock which breaks with light swell, ✓
316° true 0.6 mile from Cape Edward Light. ✓
4. Rocks awash at $\frac{3}{4}$ tide 313° true 0.2 mile from Cape Edwardn Light. ✓
5. Rock awash at $\frac{3}{4}$ tide, ✓
325° true 1.0 mile from Cape Edward Light. ✓
6. Group of rocks awash at L.W. and H.W. ✓
329° true 1.2 miles from Cape Edward Light. ✓
7. Rocks awash at H.W. ✓
239° true 0.9 mile from Hill Island Light. ✓
8. Sunken Rock breaks with light swell, ✓
297° true 0.8 mile from Hill Island Light. ✓
9. Rock awash at L.W. ✓
303° true 1.2 miles from Hill Island Light. ✓
10. Rock awash at L.L.W. ✓
307° true 1.7 miles from Hill Island Light. ✓
11. Sunken Rock breaks with moderate swell. ✓
311° true 1.3 miles from *Hill Island Light* ✓

LAND MARKS

Outer Rocks. description as per Coast Pilot.

Black Island, is wooded and 107 ft. high. It is the farthest outlying wooded one of the islets and rocks. It lies $3\frac{1}{4}$ miles wnw of Outer Rocks.

White Sisters as described in Coast Pilot Part 1 1925.

Cape Edward Light is a Fl.W.3 sec. unattended, about 39 ft. above H.W. The structure is a white wooden house. This light is located on the south side of South Passage and the North side of Kukkan Bay.

57° 40' 38"
136° 15' 19"

Hill Island Light is F.W. and unattended. It is located on the southwesterly point of Hill Island on the north side of Imperial Passage. It is 54ft. above H.W. The structure is a white wooden house similar to Cape Edward Light.

57° 43' 32"
136° 16' 30"

3. Sheet 1 Field.

REMARKS

Beginnings and endings of lines are entered in sounding records in degrees true and statute miles.

All bearings to rocks and breakers are recorded in sounding record are magnetic unless otherwise noted.

The plane of reference for tides is MLLW. Kimshan Cove tides were used - plane of reference 12.3 ft. and Sitka tides when Kimshan Cove gauge was not in operation - plane of reference for Sitka is 9.8 ft.

Respectfully submitted,

Augustus P. Ratti

Jr. H. and G. E.

STATISTICS SHEET # 1

Date 1925	Letter	Volume	Positions	Soundings	Mi. Statute Sounding Lines	Mi. Statute Working Grounds	Mi. Statute from Working Grounds	Lunch	
June	1	a	1	43	139	15.0	8.3	12.0	62
	2	b	1	28	78	7.8	10.0	12.0	
	4	c	1	59	172	15.7	12.0	10.0	
	5	d	1	70	228	14.8	12.0	15.0	
	17	e	1	12	32	2.5	11.0		
	17	e	2	49	157	13.0		7.0	
	18	f	2	57	179	17.8	6.0	7.0	
	19	g	2	67	203	18.0	7.0	6.5	
	30	h	2	43	134	6.6	8.0		
	30	h	3	23	83	4.6		10.0	
July	1	j	3	80	254	13.7	7.0	7.0	
	2	k	3	91	311	14.8	7.0	7.0	
	7	l	3	17	60	3.6	7.0		
	7	l	4	14	47	3.6		7.0	
	11	m	4	53	165	14.5	8.0	12.0	
	13	n	4	59	191	14.2	9.0	9.0	
	14	o	4	32	98	10.2	10.0	10.0	
	15	p	4	66	212	18.3	10.0	10.0	
	16	q	5	2	5	0.2	8.0		
	20	r	5	62	155	14.5	10.0	10.0	
	22	s	5	24	47	4.8	7.0	9.0	
	25	t	5	36	104	7.6	9.0	10.0	
	27	u	5	75	215	16.0	8.0	7.0	
	28	v	5	62	175	13.0	8.0		
	28	v	6	45	53	4.5		6.0	
	30	w	6	56	143	13.5	9.0	10.0	
	31	x	6	57	166	14.0			
	August	3	y	6	41	133	11.0	7.0	8.0
		4	z	6	17	53	4.2	7.5	8.0
		5	aa	6	40	123	9.8	7.5	
5		aa	7	4	18	1.2		7.0	
6		bb	7	47	116	12.5	12.0	15.0	
7		cc	7	6	11	2.8	8.0	13.8	
10		dd	7	56	187	19.3	7.0	9.0	
12		ee	7	85	186	16.2	7.0	10.5	
13		ff	7	42	134	11.2	8.0		
13		ff	8	19	66	7.5		8.5	
14		gg	8	36	103	11.7	8.0	9.0	
15		hh	8	34	98	7.0	7.0	6.2	
18		ii	8	7	12	1.1	8.0	8.0	
19		jj	8	71	167	18.0	8.0	7.0	
20		kk	8	37	72	8.0	8.0	4.0	
21		ll	8	22	65	7.0	10.0		
21	ll	9	64	133	12.0		10.0		
22	mm	9	9	24	3.2	10.0	12.0		
26	nn	9	31	42	5.0	8.0	8.0		
			1924	5549	465.4	322.3	339.5		
			Area covered on Sheet # 1		---	59.8 Sq. Mi.			

June 11, 1926.

(11)

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in
11 volumes of sounding records for

HYDROGRAPHIC SHEET NO. 4524

Locality: S. E. ALASKA

Chief of Party: A. M. Sobieralski in 1925

Plane of reference is MLLW
12.3 ft. on tide staff at Kimshan Cove
9.8 ft. do Sitka.

For reduction of soundings, condition of records satisfactory
except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A. M. or P. M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

G. Wade

Chief, Division of Tides and Currents.

Hydrographic Sheet No. 4524.
West Coast Chichagof Island.
S. E. Alaska.

OC
The area surveyed and shown on this sheet appears to be well covered, and the outlying and inshore rocks, shoals and Islands well defined.

The work on the sheet cannot be considered satisfactory as numerous errors in projecting and plotting developed and the time spent found quite bad.

Position points, figures and letters too large and not according to instructions.

John D. Torrey
7/21/26.

ADDRESS THE DIRECTOR
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 11-DEM

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON November 20, 1926.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4524

West Coast Chichagof Island, Alaska

Surveyed in 1925

Instructions dated February 4, 1925 (SURVEYOR)

Chief of Party, A. M. Sobieralski.

Surveyed by A. P. Ratti, Jr.

Protracted and soundings plotted by A. P. R.

Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions except that the wire drag work was not recorded in the regular wire drag volumes nor were any tests for lift recorded.
2. The plan and character of the survey conform to the requirements of the General Instructions.
3. The plan and extent of development satisfy the specific instructions except that there are a few indications of dangers that were not sufficiently developed. The most important of these will be mentioned hereafter. In general, however, it may be said that the development is adequate insofar as being compatible with economic operations. It would probably be more economical to drag the dangers rather than resort to additional leadline surveying.
4. The information is sufficient for drawing the usual depth curves except close inshore and around some of the offlying rocks.
5. No cross lines were run and the bottom is too broken to permit of a comparison of adjacent lines..
6. The field plotting was completed to the extent prescribed in the General Instructions, but was defective in the following respects:
 - a. There were numerous errors in protracting.

b. The soundings were not plotted in accordance with the time intervals and in some cases the wrong sounding was plotted.

7. The junctions with H. 4527, H. 4528, H. 4529 and H. 4539 are satisfactory.

The junctions with H. 4525^a and H. 4526 will be taken up in the reviews for those sheets.

A proper junction was not effected with the old survey, H. 2659, in the vicinity of Gig Pass (lat. 57° 37', long. 136° 11').

8. Additional lead line development is required in the following places, if considered sufficiently important:

a. The approaches to Ogden Passage from the south and southwest. These include the possible channels in the area between lat. 57° 34' and 57° 37' and long. 136° 10' and 136° 14 1/2'.

b. The 13 fathom sounding, surrounded by depths of 24 to 48 fathoms, lat. 57° 37 1/2', long. 136° 17 3/4', should have additional work.

c. The 11 fathom sounding in lat. 57° 37 1/2', long. 136° 15 3/4' needs further development.

d. The 9 fathom sounding in lat. 57° 38 1/2', long. 136° 15 3/4' lies in mid-channel for entering Kukkan Bay and may possibly have less water on it.

e. Additional soundings should be taken on the south side of the entrance to South Passage to determine the extent of the reef making out from Cape Edward.

f. It is strongly recommended that whenever commercial development warrants it, the entire area inside the 20 fathom curve should be dragged, particularly in places where dangers are indicated.

9. The drag work shown on this sheet was for the purpose of determining the least depth on the 6 4/6 fathom shoal developed on H. 4526. A 33 foot drag grounded on the spot but no soundings were taken. No tests for lift are recorded but a 5 foot correction was applied by the field party. When the spot was redragged at a lesser depth no correction for lift is entered, although the drag was proceeding in the same direction and with the same rising tide. The clearance depth over this shoal is therefore uncertain and until information is received from the field no effective depth will be shown on the smooth sheet. However, regardless of the actual lift, the least depth was not obtained over the shoal.

The drag work on this sheet will be found recorded in the records for H. 4525^b.

No Area and Depth Sheet was prepared for this work as it is of too small extent.

It is recommended that this drag work be used only to the extent of charting the grounding depth and should not be used for application to the tinted charts as it is doubtful whether the same degree of care was exercised in its execution as would have been done on an extensive wire drag survey, the purpose being chiefly to discover unknown dangers rather than to insure a safe depth.

10. Character and scope of field operations - Very good.
Field drafting - Good.
11. Reviewed by A. L. Shalowitz, November, 1926.

Note:

The entire control on this sheet is based on Quillian's triangulation of 1917 and that on H. 4539 to the southward is based on Dickens' triangulation of 1906. There are unadjusted differences between the two systems of triangulation amounting to approximately 35 meters in latitude and 4 meters in longitude, which should be cartographically adjusted when applying these sheets to the charts.

Approved:

Chief, Section of Field Records (Charts)

Chief, Section of Field Work (H. & T.)

HYDROGRAPHIC TITLE SHEET

Wire Drag

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4524

State . . S. E. Alaska

General locality . . West Coast Chichagof Island West Coast Dry Pass

Locality . Khaz Bay to International Passage

Chief of party . . A. M. Seberialski, Com'd'g. Str. Surveyer.

Surveyed by . . Augustus P. Ratti, Jr. H. and G. E.

Date of survey . June 1 to Aug. 26, 1925.

Scale . 1-20000

Soundings in . Fathoms

Plane of reference . . MLLW

Protracted by A. P. R. Soundings in pencil by A. P. R.

Inked by J. D. Torrey Verified by J. D. Torrey

Records accompanying sheet (check those forwarded):

Des. report, _____ Tide books, _____ Marigrams, 1 Boat sheets,

2 Sounding books, 2 Wire-drag books, _____ Photographs.

Data from other sources affecting sheet

Remarks: