

8148

Diag. Cht. No. 8201-3.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. LJ-2154 Office No. H-8148

LOCALITY

State Southeast Alaska

General locality Stikine Strait

Locality Wrangell

194/54

CHIEF OF PARTY

Curtis Le Fever

LIBRARY & ARCHIVES

DATE November 19, 1957

8148

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

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-8148

Field No. LJ-2154

State SOUTHEAST ALASKA

General locality STIKINE STRAIT

Locality WRANGELL

Scale 1:20,000 Date of survey 21 April - 12 May 1954

Instructions dated 23 December 1953

Vessel LESTER JONES

Chief of party CURTIS LE FEVER

Surveyed by CURTIS LE FEVER, CHARLES A. SCHOENE AND HOWARD A. GARCIA

Soundings taken by /atomer/ graphic recorder, hand lead, wire

Fathograms scaled by Carl E. Strom and Homer J. DeSerisy, Jr.

Fathograms checked by Charles A. Schoene and Carl E. Strom

Protracted by C. R. Lehman (S.P.O.)

Soundings penciled by C. R. Lehman

Soundings in fathoms /100/ at /MLW/ MLLW and are based on a  
velocity of sound of 800 fms/sec.

REMARKS:

*Handwritten mark*

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SURVEY H-8148 (FIELD NO. LJ-2154)

WRANGELL - ALASKA

SCALE 1:20000

APRIL & MAY 1954

Ship LESTER JONES

CHARLES A. SCHOENE, CDR., C&GS  
(Launch Hydrographer)

CURTIS LE FEVER, COMDG.  
(Ship Hydrographer)

A. PROJECT:-

Authority for this project is contained in INSTRUCTIONS - PROJECT CS-367 to Commanding Officer, Ship LESTER JONES dated 23 December 1953.

B. SURVEY LIMITS AND DATES:-

The area to be surveyed is north and west of Wrangell, extends from Longitudes  $132^{\circ} 18'$  to  $132^{\circ} 29'$ , and from Latitude  $56^{\circ} 27'$  north to Latitude  $56^{\circ} 31.2'$  at the mouth of the Stikine River. Fieldwork was begun by signal building on 21 April and completed on 12 May.

This survey makes a junction with prior survey H-6282, 1937, Scale 1:5000 in the vicinity of Wrangell Harbor. There are no contemporary surveys in the project limits. *Review, TP4*

Soundings were taken along the face of the dock at Wrangell Institute which is outside the area shown in the first part of this project.

C. VESSEL AND EQUIPMENT:-

Soundings on this sheet were done by the Ship LESTER JONES and Launch 92 (a standard diesel powered motor launch) operating from the ship. Launch 92 has a turning radius of about 20 meters and the ship about 100 meters. The launch was used to survey all the shoal areas and the narrow channels where it was not economical to use the ship. A 16 ft. skiff was used for one day to locate some rocks in Eastern Passage. The ship was used principally in the large area of deep water to the westward of the town of Wrangell.

Three 808 fathometers No. 75, 102-S & 107-S were used for all the echo sounding on this survey. The leadline was used in depths up to 20 fathoms to verify the least depths on shoals and to obtain bottom characteristics. The wire sounding machine was used on "D" & "E" days with the Ship LESTER JONES to obtain bottom characteristics in deep water.

D. TIDE AND CURRENT STATIONS:-

A portable tide gage at Wrangell, Alaska was used for the reduction of all soundings except for two days (23 & 26 April) when the gage was inoperative. Inferred hourly heights for these two days were furnished by the Washington Office in letter from Acting Director dated 26 May 1954, reference No. 36-rjb.

No current stations were observed on this project.

E. SMOOTH SHEET:-

The smooth sheet projection was made in the Washington Office by ruling machine. Shoreline and signals are to be transferred by the processing office. The work is not yet begun as of the date of this report.

F. CONTROL STATIONS:-

The source of control for triangulation was taken from prior surveys of A.C.S. 1886, O.H.T. 1893, L.O.Colbert 1916 and A.M.Sobieralski 1922. Additional triangulation was executed by this party in 1954.

Three aids to navigation were located as triangulation intersection stations, and their names were incorrectly submitted in triangulation records. Corrections are as below:

<u>NAME OF AID</u>	<u>TRIANGULATION NAME</u>	<u>HYDRO NAME</u>
Wrangell Breakwater Light	Entrance Light 1954	LIGHT
Oil Dock Reef Daybeacon	Slatted Beacon 1954	TED
Woronkofski Point Daybeacon	Woronkofski Beacon 1954	CON

Computed positions were determined for all marked topographic stations from theodolite observations. All computed control is on North American Datum of 1927. *GAFF, BANK, HOPE & EDGE are also A Stas.*

Three hydrographic stations were established during the course of the survey. Two of these were located by three point fixes taken on the station using triangulation stations as objects. The third station was located by sextant cuts from the hydrographic launch also using triangulation control.

There were no stations located by planetable, air photographic or graphic means.

G. SHORELINE AND TOPOGRAPHY:-

Shoreline was obtained from film positives furnished by the Washington Office at a scale of 1:20000 derived from topographic surveys T-3646 (1916), and T-6583 (1937). *Review, #1*

Chart correction information was obtained for the pier at Wrangell Institute, and the Wrangell Harbor vicinity in accordance with Project Instructions, para. 19.

A triangulation station was established on the Wrangell Institute pier, and the long axis of the pier was oriented for azimuth by sextant angle initialed on a distant triangulation station. The various dimensions of the pier were measured by steel tape, and leadline soundings were obtained along the face at the "L" head of the pier. A large scale drawing of the pier *Ch L* containing all pertinent data was made as an insert on one corner of the *568 (54)* boat sheet and a tracing of the same scale was submitted to the Washington Office.

A topographic planetable survey was executed on an Engineers Survey Sheet of Wrangell Harbor secured from the U.S. Engineers Office. Shoreline details were changed to conform to present conditions. *BP. 51454*

Chart corrections were also made on a copy of Chart 8164, Wrangell Harbor. These items pertaining to chart correction were forwarded to the Washington Office 19 May 1954. *Chart Letter 508 (1954)*

H. SOUNDINGS:-

All soundings on sounding lines were measured with echo sounding equipment listed in side heading "C". See report on fathometer corrections attached to the end of this report.

Handlead and wire soundings were obtained at detached positions on shoals and as bottom samples as described in side heading "C".

I. CONTROL OF HYDROGRAPHY:-

All hydrography was controlled by visual sextant fixes on shore stations.

J. ADEQUACY OF SURVEY:-

The survey is considered complete and adequate for charting and complies with project instructions and the Hydrographic Manual.

A satisfactory junction was made with survey H-6282 (1937) and an overlap was made with this survey to about a line joining the tangent of Point Highfield and Cemetery Point. *Review, P 4*

From Wrangell Harbor to the north the 1954 survey was carried inshore around Point Highfield to the eastern limits of the project superseding survey H-3962 (1916) within these limits.

All other prior surveys are considered to be superseded that are entirely or partially covered within the limits of this project. There are no holidays or excessive differences with prior surveys included in the project. Depth curves can be adequately drawn at the junction of this survey with previous work.

K. CROSSLINES:-

Crosslines were run to the extent of about 8% of the regular system of sounding lines. In some instances there were discrepancies of 2 or 3 fathoms, but crossings were generally in good agreement. *\* Review, P 7*

L. COMPARISON WITH PRIOR SURVEYS:-

This survey covers in part H-1742 (1886), scale 1:80000 within the limits that represent a large percentage of the project west of Wrangell. Few soundings existed in this area, but these were found to be in approximate agreement with the current survey. In areas most distant from the Stikine River source, the current soundings compared very favorably with the existing survey; however, soundings progressively nearer the river are proportionately of less depth than those charted, indicating the extent that shoaling has taken place in deeper water. The greatest changes that have occurred besides the general encroachment at the mud flats, appears to be approximately between the 24' and 25' meridians and extending south to 29' latitude where eight to ten fathom differences exist between the old and new soundings. Silting in this approximate latitude was accounted for about 4 to 5 fathom differences. South of about 28.5' Lat. there are no significant changes.

A very definite movement has occurred along the edge of the river delta between Kadin Island and the mainland. The shoal has extended 0.2 to 0.4 miles south and a comparison with H-3946 (1916), scale 1:20000 indicates a continual deposit of silt along the edge of the bank. Soundings transferred from H-1742 (1886), 1:80000 in this area indicate that changes up to 20 fathoms have occurred since that survey.

M. COMPARISON WITH CHART:- *See Review, P 6*

All items refer to chart 8160, published 1931.  
4.8-fm. The shoal at Lat.  $56^{\circ} 30.55'$  Long.  $132^{\circ} 28.25'$  was investigated and two separate pinnacles were located. A minimum depth of 4.2 fathoms was found on the shoalest of these. This is about 1 fathom less than the charted depth.

*at  $\phi 56^{\circ} 30.68'$   
 $\lambda 132^{\circ} 28.3'$*

A rock awash is indicated on the chart at position, Lat.  $56^{\circ} 29.36^7$ , Long.  $132^{\circ} 22.8$ . The rock was not found but is thought to be covered by silting in the area. It should be retained on the chart. ✓ (carried fwd. to present survey)

The rock at position Lat.  $56^{\circ} 29.1$ , Long.  $132^{\circ} 21.2$  is verified. Four detached rocks were located in this immediate vicinity, and another about halfway inshore from this position. ✓

N. DANGERS AND SHOALS:-

The  $3/4$  fathom shoal at Lat.  $56^{\circ} 30.32$ , Long.  $132^{\circ} 27.55$  is verified. One half hour was spent on each of two days hydrography investigating this shoal. The least depth found by leadline after reductions is  $1.2$  fathoms. It is recommended that the charted depths of  $3/4$  fathom be retained. ✓  
\* least depth by fathometer 0.8 fm.

O. COAST PILOT INFORMATION:-

Coast Pilot information was forwarded as "Coast Pilot Notes - U.S. Coast Pilot - Southeast Alaska - Dixon Entrance to Yakutat Bay" on 10 January 1955. ✓

P. AIDS TO NAVIGATION:-

Fixed aids to navigation are reported on Form 567 submitted to the Washington Office on 20 May 1954.

There were no floating aids to navigation within the area surveyed. The Wrangell Harbor Buoy 2 was not located during the survey.

No bridges, overhead cables or ferry routes exist within the area of this survey. ✓

A charted cable area extends offshore north of the entrance to Wrangell Harbor. The shore end of this cable was not located in this survey.

See paragraph F., Control Stations.

Q. LANDMARKS FOR CHARTS:-

No landmarks have been recommended for charting. ✓

R. GEOGRAPHIC NAMES:- Noted - 454 LH

Kadin Island is known locally as High Island.

Lesnoi Island is known as Goat Island.

Simonof Island as Dead Man Island.

Because of local usage it is recommended that the names of the features be changed to conform.

S. SILTED AREAS:-

A discussion covering silting is given in paragraph "L", comparison with prior surveys. ✓

Z. TABULATION OF APPLICABLE DATA::

	<u>Fwd. to Wash. Office</u>
2 ea. Form 681 - Report, Tide Sta., Wrangell	5/13/54
2 ea. Form 258 - Level Record, Tide Sta., Wrangell	"
8 ea. Tide Marigrams, Tide Sta., Wrangell	5/14/54
7 ea. Form 525 - Desc. Triangulation Sta.	5/18/54
3 ea. Form 525b - Desc. Triang. Intersection Sta.	"
13 ea. Form 526 - Recovery Note, Triang. Sta.	"
16 ea. Form 24A - List of Directions	"
1 ea. Form 662 - Inverse Position Computations	"
2 ea. Form 382 - Reductions to Center	"

	<u>Fwd. to Wash. Office</u>
18 ea. Form 27 - Position Computation	5/16/54
11 ea. Form 25 - Computation of Triangles	"
26 ea. Form 470 - Abstract of Directions	"
1 ea. Topo Sheet, Wrangell Inner Harbor Bp. 51454	5/19/54
1 ea. Tracing - Plan of Wrangell Institute Wharf	"
1 ea. Copy Chart 8164 (with corrections)	"
4 ea. Form 524 - Desc. Topographic Sta. <i>Filed in Geodesy as "Triangulation"</i>	"
3 ea. Form 28b - List of Geographic Positions	5/20/54 ✓
4 ea. Form 251a - Obsv. Horizontal Directions	"
2 ea. Form 567 - Non-floating aids -	5/21/54
1 ea. Form 525 - Desc. Trinagulation Sta.	10/28/54
3 ea. Form 524 - Desc. Topographic Sta.	"
1 ea. Coast Pilot Notes	1/10/55

TO BE FORWARDED TO WASHINGTON OFFICE

Smooth sheet H-8148  
8 Sounding Volumes, Vol. 1 to 8  
Envelopes of fathograms  
Hourly heights  
Tide Curves Graphs

STATISTICS FOR  
 HYDROGRAPHIC SURVEY H-8148 (1954)  
 SHIP LESTER JONES  
 PROJECT CS-367

<u>Vol.</u>	<u>Day Ltr.</u>	<u>Launch No.</u>	<u>Date</u>	<u>No. of H.L. or wire sndgs.</u>	<u>No.Pos.</u>	<u>Stat. Miles Sndg. Line</u>
1	a	92	4/23/54		67	15.6
1	b	"	4/24/54		59	12.9
6	A	Ship	4/26/54		146	45.8
6	B	"	4/27/54		148	48.0
1	c	92	4/28/54		135	28.5
2	d	"	4/29/54		137	29.9
2	e	"	4/30/54		168	34.5
3	f	"	5/1/54		66	11.5
3	g	"	5/3/54	4	29	4.7
7	a	Skiff	5/3/54	1	17	
7	C	Ship	5/3/54		106	33.6
3	h	92	5/4/54	5	56	11.0
3 & 4	j	"	5/5/54		161	27.1
4	k	"	5/6/54		123	18.4
4	l	"	5/7/54		174	27.6
4 & 5	m	"	5/8/54	6	73	9.2
7	D	Ship	5/8/54	20	20	
7	E	"	5/10/54	35	35	
5	n	92	5/10/54		167	28.0
7 & 8	F	Ship	5/11/54		126	35.6
TOTALS				71	2013	421.9

Area 33 square statute miles.



TIDAL NOTES

To Accompany  
Hydrographic Sheet (Field No. LJ-2154) Reg. H-8148

Tide reducers for this project were obtained from a gage established by this party on the Mc Cormack Wharf, Pier A in the town of Wrangell. Position of gage Lat.  $56^{\circ} 28.3$  N, Long.  $132^{\circ} 23.0$  W.

MLLW water corresponds to a reading of 6.8 feet on the tide staff.

Inferred hourly heights were furnished by the Washington Office for the 23rd and 26th of April when the gage was inoperative.

No correction was applied for distance from the gage.

FATHOMETER CORRECTIONS - SHEET LJ-2154

BAR CHECK  
CORRECTIONS

<u>Day Letter</u>	<u>Corr. at 2 fms.</u>
a	+0.3
b	+0.3
b	+0.3
c	+0.25
c	+0.3
c	+0.2
d	+0.3
d	+0.3
d	+0.3
e	+0.3
e	+0.3
e	+0.3
f	+0.25
f	+0.3
g	+0.3
h	+0.25
j	+0.25
j	+0.2
j	+0.3
k	+0.3
k	+0.3
l	+0.15
l	+0.25
l	+0.2
m	+0.2
m	+0.2
n	+0.3
n	+0.25
n	+0.3

Mn. = (+) .267

Initial Corrections

0-11 fms. +0.3  
11-101 fms. +0.2

PHASE CORRECTIONS

<u>Fath.No.</u>	<u>"B"</u>	<u>"C"</u>	<u>"D"</u>
107	(-) 1.2	(-) 1.2	
102	(-) 2.6	(-) 5.4	
75	0.0	+ 0.2	

<u>Day Ltr.</u>	<u>Draft of Keel Units (Ft)</u>
A	8.0
B	7.9
C	8.0
D	8.0
E	8.0
F	8.1

Mean = 8.0 ft.  
= 1.33fms.

Initial set at 1.0 fm.

Correction for Draft &  
Initial = +0.33 fms.

0-11 fms. = +0.3  
11-101fms. = +0.4

SHEAVE CORRECTIONS

Sheave H-407

<u>Depths fms.</u>	<u>Corr.</u>
0-10	0.0
10-11	+0.1
11-30	+0.0
30-70	+0.2
70-110	+0.4
110 +	+0.6

APPROVAL SHEET

The field work done with the launch was examined daily after the soundings had been plotted on the boat sheet and the necessity for additional lines discussed with the hydrographer.

The ship hydrography was supervised and directed by the Chief of Party. He conned the ship and did the plotting.

The survey is considered to be complete and adequate for the area.

No additional field work within the area surveyed is considered necessary.

The boat sheet and records are being transferred to the Seattle Processing Office for plotting of the smooth sheet.



Curtis Le Fever,  
Chief of Party,  
Comdg., Ship LESTER JONES

PROCESSING OFFICE NOTES H-8148  
(LJ-2154)

SMOOTH SHEET

The projection was machine ruled in Washington. The control and shoreline were put on by the Seattle Hydrographic Processing Unit and checked according to standard practice. ✓

SHORELINE AND TOPOGRAPHY

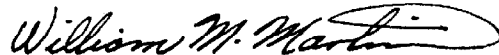
The shoreline was transferred from topographic surveys T-3646 and T-6583. The shoreline in Wrangell Harbor was transferred from U. S. Corps of Engineers print, File No. Q-2-3-16. But because the shoreline appeared to be rather generalized and was so much different than that shown on chart 8164, it was left in pencil with the shoreline from T-6583 shown in ink. *Review, P1*

CROSSLINES

Crosslines on "B" day appear to be from one to three fathoms, or about two to five percent too deep. Vicinity of Lat.  $56^{\circ} 28' .5$ , *Review, P7*  
Long.  $132^{\circ} 24' .5$ . The fathogram was checked for paper speed and stylus arm length and appeared to be correct. *Discrepancies resolved*

Other items pertaining to these notes are covered sufficiently in the field report. ✓

Respectfully submitted,



William M. Martin  
Supervisory Cartographer

APPROVED & FORWARDED:



CURTIS LE FEVER  
Captain, C&GS  
Seattle District Officer

GEOGRAPHIC NAMES PENCILED ON H-8148

BABBLER POINT

EASTERN PASSAGE

FIVE MILE ISLAND

GREEN POINT

KADIN ISLAND

LIESNOI ISLAND

POINT HIGHFIELD

POINT SHEKESTI

POLK POINT

SIMONOE ISLAND

STIKINE RIVER

STIKINE STRAIT

WRANGELL HARBOR

WRANGELL ISLAND

NAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

26 December 1957

Plane of reference approved in  
8 volumes of sounding records for

HYDROGRAPHIC SHEET 8148

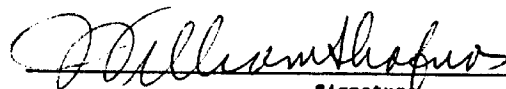
Locality Wrangell, Alaska

Chief of Party: C. LeFever in 1954

Plane of reference is mean lower low water, reading  
6.8 ft. on tide staff at Wrangell  
53.3 ft. below B.M. 5 (1916)

Height of mean high water above plane of reference is 15.2 feet

Condition of records satisfactory except as noted below:



Signature  
Chief, Tides Branch

GEOGRAPHIC NAMES

Survey No. H-8148

Name on Survey	Source											
	A	B	C	D	E	F	G	H	K			
<u>Southeast Alaska</u>				(for title)								1
<u>Babblers Point</u>												2
<u>Eastern Passage</u>												3
<u>Wrangell Island</u>												4
<u>Zimovia Strait</u>												5
<u>Stikine Strait</u>											BGN	6
<u>Wrangell</u>				(tide station)							"	7
<u>Fivemile Island</u>				(not Five Mile)								8
<u>Point Shekasta</u>												9
<u>Wrangell Harbor</u>												10
<u>Point Highfield</u>												11
<u>Folk Point</u>												12
<u>Liesnoi Island *</u>												13
<u>Kadin Island *</u>												14
<u>Simonof Island *</u>												15
<u>Stikine River</u>											BGN	16
<u>Green Point</u>											"	17
<u>Wrangell Institute</u>				(well known name for a school for Indian children)								18
												19
												20
												21
												22
												23
												24
												25
												26
												27

Names Approved 11-27-57

L. Heck

\*These three names cannot be changed to the reported local usage without a B.G.N. decision.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8148.....

Records accompanying survey:

Boat sheets ..1.; sounding vols. ..<sup>8</sup>....; wire drag vols. ....;  
 bomb vols. ....; graphic recorder rolls 3-Envelopes  
 special reports, etc. ..1-Smooth sheet.. 1-Descriptive report...  
 .....

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

Number of positions on sheet		2013	
Number of positions checked		..35..	
Number of positions revised		.....	
Number of soundings revised (refers to depth only)		..3840	
Number of soundings erroneously spaced		..4...	
Number of signals erroneously plotted or transferred		.....	
Topographic details	Time	..4 hrs	
Junctions	Time	..2 hrs	
Verification of soundings from graphic record	Time	..1 hr..	
Verification by <i>E. A. G. Jones</i> .....	Total time	..8 hr	Date ..1/21/58
Reviewed by <i>J. A. Dinsmore</i> .....	Time	..28	Date ..3/20/58



DIVISION OF CHARTS  
REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8148

FIELD NO. LJ-2154

Southeast Alaska, Stikine Strait, Wrangell

Surveyed April-May 1954

Scale:1;20,000

Project No. CS-367

Soundings:

Control:

808 Depth Recorder  
Hand lead

Sextant fixes on  
shore signals

Chief of Party - C. LeFever  
Surveyed by - C. LeFever, C. A. Schoene & H. A. Garcia  
Protracted by - C. R. Lehman  
Soundings plotted by - C. R. Lehman  
Verified and inked by - E. Thomas  
Reviewed by - T. A. Dinsmore  
Inspected by - R. H. Carstens

Date: 20 Mar. 1958

1. Shoreline and Signals

The shoreline originates with topographic surveys T-3646 (1916) and T-6583 (1937). The application of the latter survey was modified in areas adjacent to the hydrography to agree with deletions and revisions furnished by a field inspection in 1954 of the Wrangell Harbor area (Chart Letter 508).

The source of the signals is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

The shoal flats of Stikine River on the north slope sharply

to depths of 10 fms. which occur as near as 100 meters from the edge of the flats. A prominent shoal rises abruptly to within 0.9 fms. of the surface in lat.  $56^{\circ}30.3'$ , long.  $132^{\circ}27.56'$ , from surrounding depths of 7-10 fms. Except for the bottom irregularities found south of Kadin Island and along the northern border of the survey, the bottom for the most part is relatively even.

#### 4. Adjoining Surveys

Depths of the present survey are in excellent agreement with depths on H-6282 (1937), scale 1:5,000 in the vicinity of Wrangell Harbor. However, for large-scale charting, curves and supplementary soundings should be compiled from the large-scale survey. Elsewhere, charted depths at the limits of the present survey are in harmony with present survey depths.

#### 5. Comparison with Prior Surveys

a.	H-1623a (1882-85) 1:5,000	H-3938 (1916) 1:10,000
	H-1741 (1886) 1:10,000	H-3946 (1916) 1:20,000
	H-1742 (1886) 1:80,000	<u>H-3962 (1916) 1:10,000</u>
	<u>H-1806 (1887) 1:80,000</u>	

The present survey falls within the area covered by these prior surveys. A comparison of the prior and present surveys reveals major bottom changes throughout the northern portion of the surveyed area. A very definite advance of the edge of the river delta between Kadin Island and the mainland is clearly indicated. The shoal flats of Stikine River have extended from  $1/4$  to  $1/2$  of a mile southward. Prior depths of 20 fms. in lat.  $56^{\circ}30.5'$ , long.  $132^{\circ}25.2'$ , are now superseded by depths of 0 to 1 fm. Although the major shoaling is evidenced along the encroachment of the mud flats, differences of 4 to 5 fms. are found as far south as lat.  $56^{\circ}29'$  indicating the extent that shoaling has taken place in deeper water. No appreciable differences are noted between prior and present depths south of lat.  $56^{\circ}28.5'$ .

The rock awash charted in lat.  $56^{\circ}29.37'$ , long.  $132^{\circ}22.8'$ , from H-3946 (1916) is not considered disproved by the present survey and has, therefore, been retained to indicate the rocky shoal described in the Descriptive Report of H-3946, page 8.

With the indicated addition, the present survey is adequate to supersede the prior surveys within the common area.

b. H-3946 (1916) W. D. 1:20,000

This wire-drag survey covers the greater part of the surveyed area. Numerous conflicts between the effective wire-drag depths and the present-survey depths occur along the edge of the shoal flats of the Stikine River on the north. The conflicts result from the major shoaling noted in the preceding paragraph. The effective wire-drag depths should be disregarded where they conflict with the shoaler depths on the present survey.

6. Comparison with Chart 8160 (Latest print date 8/20/56)  
8164 ( " " " 6/2/52)

A. Hydrography

Charted hydrography originates with the previously discussed surveys which need no further consideration.

The present survey supersedes the charted information.

B. Aids to Navigation

No floating aids to navigation are charted in the area. Fixed aids to navigation located on the present survey are in substantial agreement with the charted aids and adequately serve the purpose intended.

7. Condition of Survey

a. The sounding records and Descriptive Report are complete and comprehensive.

b. The smooth plotting was generally accurate. Minor crossline discrepancies of 1-2 fms. in the vicinity of lat.  $56^{\circ}28.5'$ , long.  $132^{\circ}24.5'$ , were resolved in verification by revising phase corrections to portions of the sounding lines affected.

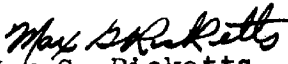
8. Compliance with Project Instructions


The survey adequately complies with the Project Instructions.


9. Additional Field Work


The survey is considered to be basic within the area covered and no additional field work is required.

Examined and approved:

  
Max G. Ricketts  
Chief, Nautical Chart Branch

  
Ernest B. Lewey  
Chief, Division of Charts

  
Karl B. Jeffers  
Chief, Hydrography Branch

  
Samuel B. Grenell  
Chief, Division of Coastal Surveys

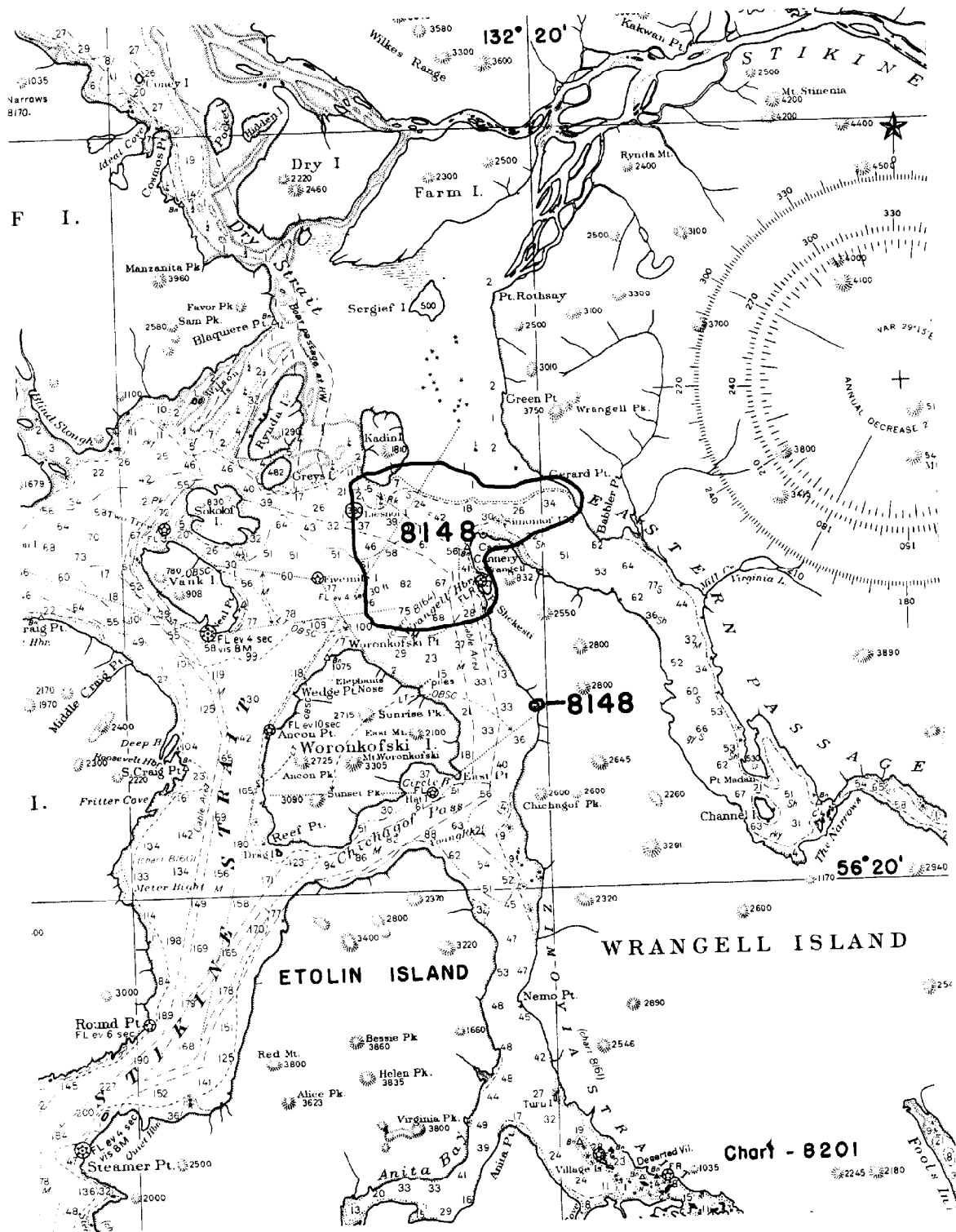


Chart - 8201

# NAUTICAL CHARTS BRANCH

SURVEY NO. H-8148

## Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
5-5-58	8201	R. H. DeLandau	<del>Part appl.</del> <del>Before</del> After Verification and Review <i>without going thru larger scale charts.</i>
7/15/58	8161	JFW	<del>Before</del> After Verification and Review <i>Partially</i>
2-3-59	8164	R. H. DeLandau	<del>Before</del> After Verification and Review
2-4-59	8160	R. H. DeLandau	<del>Before</del> After Verification and Review <i>thru chrt 8164 in area covered by that chrt.</i>
2-5-59	8161	R. H. DeLandau	<del>Before</del> After Verification and Review <i>thru chrt 8160</i>
2-6-59	8201	R. H. DeLandau	<del>Before</del> After Verification and Review <i>thru chrt 8160</i>
17 Mar 61	8002	E. W. Progniz	<del>Before</del> After Verification and Review <i>Comp appl</i> <i>thru chrt 8201</i>
5-11-63	8165	John W Knoop	<del>Before</del> After Verification and Review <i>Completely applied</i>
2/8/71	8165	J. Graham	<del>Before</del> After Verification and Review <i>&amp; Inspection</i> <i>Fully Applied to New Chart H.C. 8165</i> <del>Before</del> After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.