8621

Diag.Cht.No.8201-3

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey ..... Hydrographic

Field No. LJ-10-1-61

Office No. H-8621

LOCALITY

State ..... Alaska

General Locality ..... Wrangell Island

Locality ... Approaches to Wrangell Harbor

19 61

CHIEF OF PARTY
L.G. Taylor

LIBRARY & ARCHIVES

DATE ..... Jan. 28, 1963

☆ U.S. GOV. PRINTING OFFICE: 1976—669-441

Form 537
(Ed. June 1946)

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-8621

Field No. LJ-10-1-61

State Alaska

General locality Wrangell Island

Locality ~~Zimovia Strait~~ Approaches to Wrangell Harbor

Scale 1:10,000 Date of survey 2 May thru 17 July 1961

Instructions dated 10 november 1960 and 19 December 1960

Vessel USC&GS Ship LESTER JONES and Launch No. 88

Chief of party Lorne G. Taylor

Surveyed by L. G. Taylor and H. E. MsCall

Soundings taken by fathometer, graphic recorder, hand lead, ~~wire~~

Fathograms scaled by Ship personnel

Fathograms checked by Ship personnel and Processing Office personnel

Protracted by V. F. Flor

Soundings penciled by V. F. Flor

Soundings in fathoms ~~feet~~ at ~~MLW~~ MLLW

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

DW

DESCRIPTIVE REPORT (LJ-10-1-61, WRANGELL) H-8621

A. PROJECT:
Special Project 2-61, Original Instructions dated 10 November 1960, Supplemental Instructions dated 19 December 1960.

B. AREA SURVEYED:
The area surveyed was in Zimovia Strait between Woronkofski and Wrangell Islands. Southern limit was 56°23.0'N, northern limit the Stikine River Bar, eastern limit 132°21.2'W, and western limit 132° 28.0'W. Junctions were made on the east and west with H-8148, scale 1:20,000, 1954. No junction was made at the southern limit. Junction was made at the entrance to Wrangell Harbor with LJ-5-1-61. ← H-8620 (1961)

C. SOUNDING VESSEL:
With the exception of part of the bottom sampling all of the hydrography was accomplished with launch 88, blue being the identifying color. The LESTER JONES was used to obtain bottom samples in deep water, red being the identifying color.

D. SOUNDING EQUIPMENT:
All soundings were obtained by 808 fathometer No. 125-S. Phase comparisons were made, bar checks at two fathoms were taken daily, and temperature and salinity observations were made to determine velocity correctors.

E. SMOOTH SHEET:

F. CONTROL:
All control, with the exception of triangulation stations, was located by planetable on sheets LJ-A-61, LJ-C-61, and LJ-D-61 scales 1:10,000 and LJ-B-61, scale 1:5,000. T-7140 A T-7141 A T-7141 b T-7140 b T-7142

G. SHORELINE:
The shoreline detail was located by planetable on the sheets listed in section F. Topographic detail and shoreline was done concurrently with hydrography and was not verified.

In several areas the beach was too steep to define the low-water line by the soundings. In two areas log booms were present and sounding lines could not be run.

H. CROSSLINES:
Crosslines were in excess of ten percent and generally in good agreement.

I. JUNCTIONS:
Junctions were made on the eastern and western limits with H-8148. No junctions were required at the northern and southern limits.
Junction not made with H-8148 (1954) - Junction made with H-8620 (1961)
Along the eastern junction there appears to be shoaling of depths from 1-2 fathoms except near the north shore of Wrangell Island where agreement is somewhat better. The Stikine River bar appears to extend farther south than previous surveys indicate.

The western junction soundings indicate shoaling of 1-2 fathoms in the channel between Kadin Island and Liesnoi Island. The remaining portion of the junction soundings appear to be in reasonable agreement.

Junction soundings with H-8620 LJ-5-1-61 at the entrance to Wrangell Harbor appear to be in agreement.

J. COMPARISON WITH PRIOR SURVEYS:
The 0 ~~8~~ 6 fathom sounding shown on H-8148, 1954, 1:20,000 at 56°30.30'N, 132°27.58'W was investigated and the least depth obtained by lead line was ~~1.0~~ 0.9 fathoms, see position 50v. Also agrees with H-3946 (1946) WD

The rock awash at 56°29.37'N, 132°22.79'W was verified, see position 5u. City of Topeka Rock

Except for the junctions stated in section I, soundings over the remainder of the sheet were in good agreement with H-8148.

K. COMPARISON WITH THE CHART:
Depths are generally 1-3 fathoms shoaler in Highfield Anchorage than as shown on Chart 8164, 1939 edition. Depths along the west shore of Wrangell Island are in better agreement.

Chart 8160 is of such small scale that little comparison can be made. The 22 fathom sounding at 56°25.8'N and 132°24.4'W used as an anchorage is in good agreement; however shoal water extends farther off the north shore of Woronkofski Island than indicated on the chart.

L. ADEQUACY OF SURVEY:
The survey is complete and adequate for charting.

M. AIDS TO NAVIGATION:
There were no floating aids to navigation within the limits of the sheet. For fixed aids see Reviewer's Report

N. STATISTICS:
The LESTER JONES spent four days on this sheet taking 123 positions and 0.0 miles of sounding lines. Launch 88 spent thirty eight days taking 5,492 positions and 550.4 nautical miles of sounding lines. The total area covered was 24.1 square nautical miles.

Q. REFERENCES TO REPORTS:
All tide records were forwarded to the Washington Office during the season. The fathometer report will be forwarded in the near future, a copy of the correctors is included in the report.

R. GEOGRAPHIC NAMES:
Simonof Island is known locally as Deadman Island. The name originated when sailing ships called at the cannery site. At the time there was a deadman cable secured to the rocks at the western end of the island. There is a small native cemetery on the island which has no connection with the name.

recorded JMB 5/9/63. (5-6030)

Harold E. McCall

Harold E. McCall
LTJG, C&GS
EX. O. LESTER JONES

TIDE NOTE (LJ-10-1-61 & LJ-5-1-61)

The tide station was located on McCormick's Dock, latitude 56°28.3'N, longitude 132°23.1'W. The heighth of the tide staff corresponding to MLLW was 8.3 feet. No corrections for differences in time or heigth were applied to the observed tides.

PHASE CORRECTIONS - SPECIAL PROJECT 2-61

Launch #66
LJ-10-1-61 & LJ-5-1-61
Fathometer No. 125-S

Scale	"A"	"B"	"C"
Correction	0.0	-0.4	-0.6

VELOCITY CORRECTION ABSTRACT

(Applicable 3 May 1961 to 31 May 1961)

DEPTH (Fathoms)	CORRECTION (Fathoms)
0-12	0
12.1-34	+0.1
34.1-54	+0.2
54.1-73.6	+0.3
73.7-93.5	+0.4

(Applicable 1 June 1961 to 18 July 1961)

DEPTH (Fathoms)	CORRECTION (Fathoms)
0-6	0
6.1-20.1	+0.1
20.2-42.0	+0.2
42.1-62.0	+0.3
62.1-82.0	+0.4
82.1-102.0	+0.5

LIST OF STATIONS ON H- (LJ-10-1-61)

Name used in hydrographic survey	Origin of Station
ABE	LJ-C-61
ADD	LJ-C-61
AMY	LJ-E-61
ARM	LJ-C-61
BAK	BAKER, 1954
BAS	BASE, 1916
BAT	LJ-C-61
BIB	LJ-C-61
BOB	LJ-C-61
BOX	LJ-E-61
COP	LJ-E-61
CRY	LJ-C-61
EDG	EDGE, 1954
END	LJ-E-61
ENT	WRANGELL BREAKWATER ENTRANCE LIGHT, 1954
ERA	GERARD, 1954
EVA	FORT WRANGELL SOUTH BASE, 2, 1916
FIE	FIELD, 1922
FIR	AFIRM, 1954
FLA	FLATS, 1954
FOR	FORT WRANGELL N. BASE 2, 1916-37
GAF	GAFF, 1954
GAL	LJ-E-61
GAS	LJ-B-61
GEL	WRANGELL B.M. 6
GIG	LJ-A-61
GUS	LJ-E-61
HOE	LJ-B-61
HOW	LJ-A-61
IDA	LJ-B-61
JIM	LJ-B-61
KID	LJ-B-61
LAR	LARGE 2, 1922
LED	LEDGE 2, 1916-54
LEG	LJ-B-61
LIT	LITHOGRAPH, 1893
MAG	LJ-D-61
NEW	NEW 2, 1916
NOD	LJ-D-61
OAK	LJ-D-61
OIL	OIL DOCK REEF DAY BEACON, 1954
POW	LJ-D-61
POL	LJ-E-61
QUO	LJ-D-61
RAN	WRANGELL 2, 1916
RIG	LJ-D-61
ROU	ROUND, 1954
RUB	LJ-D-61
TIT	INSTITUTE, 1954
TUB	LJ-C-61

APPROVAL SHEET LJ-10-1-61

The survey records including the Boat Sheet, Sounding Volumes and Fathograms were inspected at regular intervals during the progress of field work. All record books were inspected and approved at the conclusion of field processing and the survey is approved.

No additional field work is needed for the area.

Lorne G. Taylor
CDR, C&GS
C.O. LESTER JONES

PROCESSING OFFICE NOTES - H-8621

SMOOTH SHEET

The smooth sheet was hand constructed by personnel of the Seattle Hydrographic Processing Unit, using standard methods of construction and checking.

SHORELINE

There are no discrepancies between the shoreline and hydrography.

CROSSLINES

The crosslines are in good agreement.

COMPARISON WITH CHART

This survey has been compared with Chart 8164, 4th Ed. Rev. June 2, 1952, and Chart 8160, 5th Ed. Rev. October 23, 1961.

Comparison with Chart 8164 shows a shoaling trend of from 1 to about 11 fathoms in the Highfield Anchorage area and in the deep to the west of Point Highfield. The shoreline on the north end of Wrangell Island is not in agreement with the present survey, nor is the shoreline of Simonof Island. I believe that a general revision of this chart is in order. *See T-7142 (plane table LJ-E-61)*

Comparison with Chart 8160 shows a number of differences of depths, varying from 1 to 13 fathoms. The inshore detail should be added to this chart.

See sections of both charts, attached to this report, for comparisons.

Respectfully submitted,

William M. Martin

William M. Martin
Supervisory Cartographer

Approved and forwarded

M. E. Wennermark

M. E. Wennermark
Captain, C&GS
Seattle District Office

RHC

FORM C&GS-712
(4-62)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
19 volumes of sounding records for

HYDROGRAPHIC SHEET 8621

Locality Wrangell, Alaska

Chief of Party: L. G. Taylor (1961)

Plane of reference is mean lower low water

8.3 ft. on tide staff at Wrangell, Alaska

53.3 ft. below B. M. 5 (1916)

Height of mean high water above plane of reference is 14.8 feet.

Condition of records satisfactory except as noted below:

J. M. Symons
Chief, Tides and Currents Branch

USCOMM-DC 16543-P62

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8621

Name on Survey	A On Chart No. 8160, 8164	B On previous survey No.	C On U.S. quadrangle Maps	D From local information	E On local Maps	F P.O. Guide or Map	G Rand McNally Atlas	H U.S. Light List	K BGN	
Cemetery Point	8160								✓	1
City of Topeka Rock	8164									2
East Point	8160									3
Eastern Passage	"									4
Kadin Island	"									5
Liesnoi Island	"									6
Point Highfield	8164									7
Point Shekesti	"									8
Shakes Island	—			✓						9
Simonof Island	8164									10
Woronkofski Island	8160									11
Wrangell	8164								✓	12
Wrangell Harbor	—			✓						13
Wrangell Island	8164									14
Wrangell Institute	—			✓						15
Zimovia Strait	8164									16
Highfield Anchorage										17
Shoemaker Bay										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

George M. Bell
Geographic Names Section
9 May 1963

Chas. E. Harrington - C3x5
22 July 1980

Form 946

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8621

Records accompanying survey: Smooth sheets 1....;

boat sheets 1....; sounding vols. 19....; wire drag vols. .....;

Descriptive Reports 1....; graphic recorder envelopes 6....;

special reports, etc. .....

.....

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

			Review
Number of positions on sheet		5492	
Number of positions checked		950	24
Number of positions revised		8	0
Number of soundings revised (refers to depth only)		2	3
Number of soundings erroneously spaced		0	0
Number of signals erroneously plotted or transferred		0	0
Topographic details	Time	10.	3 hrs.
Junctions	Time	8.	5 hrs.
Verification of soundings from graphic record	Time		3 hrs.
Special adjustments	Time	16.	0

Verification by [illegible] Total time 376 Date June 1, 1966

Reviewed by S. Rose Time 152 hrs. Date 6-30-'67

Cur. Insp. D. J. Romesburg 5-12-76 46 hrs.

D. R. Engle

US COMM C&GS DC

H-8621

Information for Future Presurvey Reviews

The encroachment of the Stikine River flats into Eastern Passage is expected to continue. The remaining survey area is stable.

Position Index		Bottom Change	Use	Resurvey
Lat.	Long.	Index	Index	Cycle
562	1323	0	1	50 years
563	1323	9	1	25 years

OFFICE OF MARINE SURVEYS AND MAPS

HYDROGRAPHIC SURVEYS DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8621 FIELD NO. LJ-10-1-61

Alaska, Wrangell Island, Approaches to Wrangell Harbor

SURVEYED: May 2 - July 17, 1961

SCALE: 1:10,000 PROJECT NO.: SP-2-61

SOUNDINGS: 808 Depth Recorder CONTROL: Sextant Fixes on Shore Signals

Chief of Party	L. G. Taylor
Surveyed by	L. G. Taylor
	H. E. McCall
Protracted by	V. F. Flor
Soundings Plotted by	V. F. Flor
Verified and Inked by	G. K. Myers
Reviewed by	S. Rose Date: June 30, 1967
Cursory inspection made--survey processing considered complete	D. J. Romesburg May 12, 1976

1. Description of the Area

This survey covers Zimovia Strait from latitude 56°23' northward to the south shore of Kadin Island and the west limit of Eastern Passage. The survey includes Highfield Anchorage but excludes Wrangell Harbor. The bottom is muddy and stable except for the area near the Stikine River delta in Eastern Passage. Most of the shoreline is steep and relatively stable. The north shore of Wrangell Island is marshy and subject to minor changes.

2. Control and Shoreline

The control is adequately described in the Descriptive Report.

The shoreline originates with plane table sheets T-7142, T-7140"a" and "b," and T-7141"a" and "b" of 1961.

3. Hydrography

a. Depths at crossings are in good agreement.

b. The usual depth curves are adequately delineated.

c. The development of the bottom configuration is adequate. Least depths and shoals are well developed.

4. Condition of Survey

The field plotting, sounding records, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual except for several days of work when the radius of rotation of the fathometer arm and the paper alignment were faulty, thereby introducing errors of as much as ± .25 fathom. The maximum error would occur in soundings scanned from the central portion of the fathogram (20-35 fathoms, 55-70 fathoms). These errors apparently were not detected during processing of the survey and, although they would change some soundings by one unit, were not corrected during office review.

5. Junctions

An adequate junction was made at Wrangell Harbor with H-8620 (1961). There are no other contemporary junctional surveys as of the date of this review; however, present depths along the survey limits are in harmony with charted depths.

6. Comparison with Prior Surveys

a.

H-1741	(1886)	1:10,000
H-1742	(1886)	1:80,000
H-8148	(1954)	1:20,000

Taken together, these surveys comprise the prior coverage of the area of the present survey, with H-8148 (1954) superseding the earlier prior surveys north of latitude 56°27'.

A comparison between the prior and present survey depths reveals good agreement except in the Stikine River delta area along the norther limit of the present survey. Here the sedimentation from the Stikine River is continuing its southward encroachment into Eastern Passage as evidenced by depths of 7.4 to 10 fathoms recorded in latitude 56°30.21', longitude 132°23.92' on H-8148 (1954) versus depths of 0.9 to 1 fathom on the present survey.

A sounding, pile, reef, and several rocks awash were brought forward from H-8148 (1954) to supplement the present survey.

Differences in depths between the 1886 prior surveys and the present survey can be attributed to the paucity of soundings, poor control, and lead line surveying methods on the earlier surveys.

Except as noted above, the present survey is adequate to supersede the prior surveys within the common area.

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

The effective depths on this wire-drag survey are in conflict with present survey depths along the Stikine River flats on the northern limit of the present survey and in the area just south of Kadin Island. These discrepancies are caused by the shoaling mentioned in the above paragraph. Depths from the present survey should be accepted and the effective drag depths disregarded in these areas.

7. Comparison with Chart 8165 (17384), 1st Edition, August 5, 1972
Chart 8160 (17382), 10th Edition, September 6, 1975

a. Hydrography

Most of the charted hydrography originates with the verified and reviewed smooth sheet of the present survey. Several chart revisions indicated on Bp-95147 originate with information subsequent to the date of the present survey and should remain charted.

Attention is directed to the following:

(1) A 78-fathom sounding from the present survey was incorrectly charted as 68 in latitude 56°27.15', longitude 132°26.9' on chart 17382 (8160) and should be revised.

(2) The rock awash, PA charted in latitude 56°30.38', longitude 132°27.56' on chart 17382 (8160) originates with Bp-89089, a chart maintenance print of shoreline manuscript TP-00555. The rock awash symbol was mistakenly added to the shoreline manuscript as a note to the field editor or hydrographer to indicate that a charted rock exists in this area and warrants investigation. However, the chart never showed this rock as being awash. This area was extensively developed on prior survey H-8148 (1954) and the present survey and 0.8 fathom was the least depth obtained on this feature. It is recommended that the depth from the present survey be recharted and the rock awash, PA be deleted.

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common areas on both charts.

b. Aids to Navigation

The Oil Dock Reef Daybeacon, north of Wrangell Harbor, was the only navigational aid within the limits of the hydrography at the date of

the present survey; however, Wrangell Breakwater Light also is plotted on this sheet. Both aids are charted correctly and adequately mark the features intended.

8. Compliance with Instructions

This survey complies adequately with the project instructions.

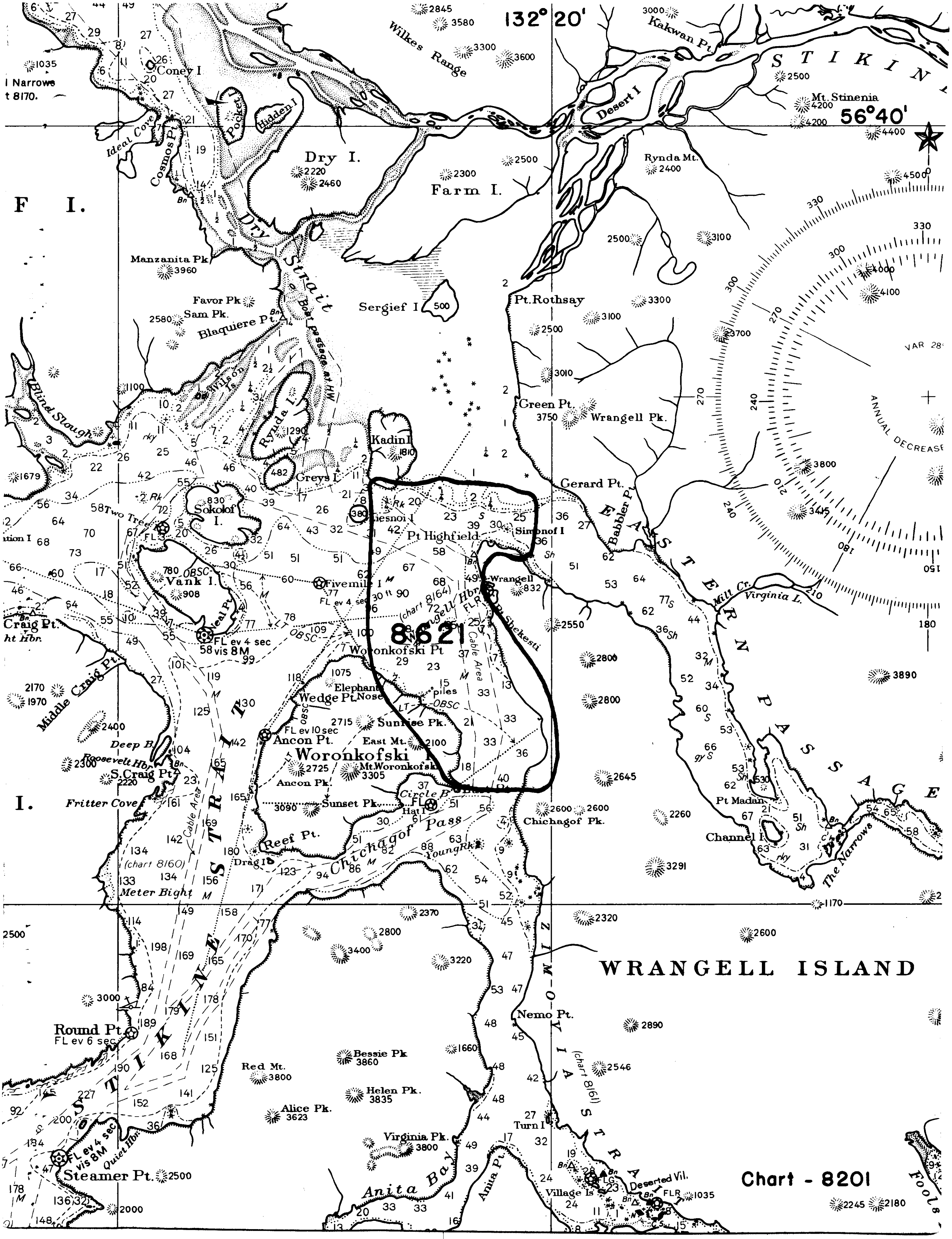
9. Additional Field Work

This is a very good basic survey, and no additional field work is required.

Examined and Approved:

Glen R. Schaefer
Chief
Hydrographic Surveys Division

F/ Associate Director
Office of Marine Surveys
and Maps



132° 20'
56°40'
Wilkes Range
Kakwan Pt
STIKINE
Mt. Stinenia
Desert I
Coney I
Narrows
Ideal Cove
Cosmos Pt
Pocket I
Hidden I
Dry I.
Farm I.
Rynda Mt.
F I.
Dry Strait
Manzanita Pk
Favor Pk
Sam Pk.
Blaquiere Pt.
Boat passage at HW
Sergief I
Pt. Rothsay
Blind Slough
Wilson Is
Rynda I.
Green Pt.
Wrangell Pk.
Kadin I
Greys I.
Gerard Pt.
Babbler Pt.
Sokolof I.
Two Tree
Liesnoi I
Pt Highfield
Simonof I
Vank I.
Fivemile I
Wrangell
Wrangell Hbr
Craig Pt.
(chart 8164)
8621
Pt Shekesti
Woronkofski Pt
Cable Area
EASTERN PASSAGE
Virginia L.
Milt Cr.
ANNUAL DECREASE
VAR 28
Middle Craig Pt.
Elephant Nose
Wedge Pt.
Sunrise Pk.
Ancon Pt.
East Mt.
Deep B.
Roosevelt Hbr
S. Craig Pt.
Woronkofski
Mt. Woronkofski
Ancon Pk.
Circle B
Fritter Cove
Sunset Pk.
Hat I
Chichagof Pk.
Pt Madan
Channel I
The Narrows
Reef Pt.
Chichagof Pass
Young Rk
Drag I
(chart 8160)
Meter Bight
STIKINE STRAIT
ZIMOVIA STRAIT
WRANGELL ISLAND
Round Pt.
FL ev 6 sec
Nemo Pt.
Bessie Pk
Red Mt.
Helen Pk.
Alice Pk.
(chart 8161)
Virginia Pk.
Turn I
Quiet Hbr
Steamer Pt.
Anita Bay
Anita Pt.
Village Is
Deserted Vil.
Chart - 8201
Fools

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8621

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10/10/62 2/7/63	8160	C R Helmer (Boat Sheet) W P Shook (Smooth Sheet)	Before ~~After~~ Partially Applied Verification and Review
3/23/63	8165	John W Knoop	Before ~~After~~ Complete Application Verification and Review
4-25-63	8002	h. j. keeler	~~Before~~ After Verification and Review Examined - No corr.
4/14/69	8164	W. H. Wall	~~Before~~ After Verification and Review Before Inspect Partly applied
4/14/69	8161	W. H. Wall	~~Before~~ After Verification and Review before Inspect Partly applied thru 8164
3-18-70	8160	H. Ladd	~~Before~~ Partly applied After Verification and Review before Inspect
2/8/71	8165	J. GRAHAM	~~Before~~ After Verification and Review before inspection Fully Applied to New Chart H-C-8165
5/72	8160	J Graham	~~Before~~ After Verification and Review before inspection ~~adequately~~ applied thru 8165
8/19/77	8165	M. SAGER	Fully Applied ~~Before~~ After Verification and Review & inspection-before signature.
8/19/77	8161	M. SAGER	Fully Applied ~~Before~~ After Verification and Review & Inspection-before Signature.
1-29-82	8165	L. Simmons	Fully Applied AFTER Verification, Review, Inspection & Signature.

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.