

8595

Diag. Cht. No. 8551-3.

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. BQ-10-3-61.....
Office No..... H-8595.....

LOCALITY

State ALASKA.....
General Locality PRINCE WILLIAM SOUND.....
Locality McCLURE BAY AND BLUE FIORD.....

1961

CHIEF OF PARTY

Francis X. Popper.....

LIBRARY & ARCHIVES

DATE 2/28/61.....

8595

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-8563

Field No. BO-10-3-61

State Alaska

General locality Prince William Sound

Locality McClure Bay and Blue Fiord

Scale 1:10,000 Date of survey 6/28/61 — 8/3/61

Instructions dated 18 November 1958

Vessel USC&GS SHIP BOWIE

Chief of party Francis X. Popper

Surveyed by P. D. Montjoy

Soundings taken by ~~XX~~ Graphic Recorder

Fathograms scaled by W. White

Fathograms checked by F. X. Popper, J. M. Doherty

Protracted by A. Tczap

Soundings penciled by A. Tczap

Soundings in fathoms ~~feet~~ at ~~XXXXX~~ MLLW

REMARKS:



JM
8/61

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SURVEY H-8595 Field No. BO-10-3-61

Scale: 1:10,000

Date: 1961

USC&GS SHIP BOWIE

F. X. Popper, Commanding

A. PROJECT:

This survey was conducted as a portion of project CS-277 in accordance with instructions dated 18 November 1958. and supplemental instructions dated 14 January 1960.

B. AREA SURVEYED:

The areas of Blue Fiord and McClure Bay are covered by this survey. The limits of this survey are: 60°-26'N to 60°-34'N, 148°-09W to 148°-18'W.

The hydrography in Blue Fiord joins prior survey H-7794 (1:40,000 1948) and contemporary survey H-8594 (1:10,000 1961).

The hydrography in McClure Bay is a resurvey of H-3973 (1:20,000 1917) and joins contemporary survey H-8606 (1:10,000 1961).

Hydrography was accomplished between 28 June and 3 August 1961.

C. SOUNDING VESSEL:

Hydrography was accomplished using Launch No. 95, a 30' wooden diesel powered launch. One day of work was done with Launch No. 184, a 26' plastic diesel powered whaleboat. Bottom samples were taken by the Ship BOWIE.

Launch No. 95 is called 6-A in the sounding volumes and its work is designated by blue lower case letters.

Launch No. 184 is called launch 1 in the sounding volumes and its work is designated by red lower case letters.

Ship work is designated by blue upper case letters.

D. SOUNDING EQUIPMENT:

Soundings were taken with 808 fathometers calibrated at a speed of 800 fms. per second.

Serial numbers of the fathometers used are as follows: 57-30, 57-28, 57-25.

The phase comparisons were obtained for each fathometer, by obtaining ten observations at each change of scale. The 10 observations were then scanned from the fathogram and a mean correction determined. This correction was combined with the bar check correction to give the Echo Correction which is shown on page 2. (Appendix)

At the time the phase comparisons were taken a series of tests were run on each fathometer and the results are as follows:

<u>Fathometer</u>	<u>Speed</u>	<u>Paper Advance</u>	<u>Radius Stylus Arm</u>
57-30	109 RPM	7.8 inch/4 min (foot scale)	O. K.
57-28	109 RPM	"	"
57-25	109 RPM	"	"

Paper advance and speed checks were made twice each day and are recorded on the fathograms.

Velocity corrections determined from the temperature and salinity casts are shown on page 3. (Appendix)

Because of the steep and irregular bottom a striker, type NJ3, was used on each 808 fathometer in order to obtain a satisfactory record.

Due to the irregular and steep bottom many side echos and scale changes were encountered. This caused some missed and erroneous soundings.

A paper slippage problem arose due to worn-out paper take-up spring belts. This was not a constant error but built up until the spring slipped and the speed was normal again.

No other serious problems were encountered.

E. SMOOTH SHEET:

The smooth sheet projection was computed and constructed by the Washington Office. The sheet was plotted by officer personnel of the BOWIE.

F. CONTROL:

Three point fixes were used to control hydrography accomplished on this sheet.

Triangulation, topographic, photogrammetric, and hydrographic signals were used for control.

In Blue Fiord topography and triangulation provided all but one signal. This signal was a hydrographic signal.

In McClure Bay, due to lack of triangulation the primary control is photogrammetric along with two recovered marked topographic stations and several hydrographic stations.

For complete information on signals used and origin of signals see Signal List on page 1.

G. TIDE AND CURRENT STATIONS:

The portable tide gages used in conjunction with this survey, were located at the entrance to Blue Fiord, Lat. $60^{\circ}-29.5'$, Long $148^{\circ}-146'$ and in the vicinity of Applegate Island, Lat. $60^{\circ}-37.4'$ Long $148^{\circ}-09.8'$.

The Blue Fiord gage was used for all work in Blue Fiord and the Applegate gage was used for all work in McClure Bay.

Predicted tides for Culross Passage South were used to reduce boat sheet soundings.

There were no current stations occupied on this sheet.

H. SHORELINE:

Shoreline for this sheet is taken from incomplete blue-line manuscripts T-9123 and T-9125. (See Review par 2)

A short segment of shoreline approximately 300 meters long on the ~~east~~^{west} side of McClure Bay between latitudes $60^{\circ}-30.4'$ & $60^{\circ}-30.6'$ was adjusted by sextant fixes and approximate visual methods.

On the ~~east~~^{west} side of Blue Fiord the dashed in shoreline between latitudes $60^{\circ}-28'$ and $60^{\circ}-29'$ should be adjusted to the signals Ace, Car and End each of which lie on the high water line.

All other shoreline on this sheet was verified by the hydrographer, any new features added were located by sextant fixes.

The low water line in many areas is not completely defined due to the steepness and irregularity of the bottom which made a close approach to the beach dangerous. All shoreline was run at high tide in an attempt to delineate the low water line as accurately as possible.

I. CROSSLINES:

Approximately 60% crosslines were run with good crossings.

J. JUNCTIONS:

Agreement at junctions with surveys mentioned in section B is good considering the irregularity of the bottom. In many instances comparisons of one fathom were found and in places where there was a disagreement of over 5 fathoms a position shift of a millimeter would achieve agreement.

K. COMPARISON WITH PRIOR SURVEYS:

The prior survey of McClure Bay is H-3973. There is no prior survey of Blue Fiord.

The presurvey review listed the items discussed below:

Item 7 - "The charted sunken rock symbols originate with soundings of 1 4/6 fms. and 1 2/6 fms. on H-3973. The descriptive report of that survey states that both rocks are about awash at low tide. The western rock probably corresponds to the rock awash on T-9123. The eastern rock is located by a very weak fix and may fall closer inshore. The obstruction indicated on T-9123 in this cove should be investigated."

Both of the rocks mentioned were located visually at an extreme low tide.

The western rock bared at a minus tide and the high point was found to be 2.7 feet below MLLW. See position 5a for fix. * Gov. 2# MLLW
2.4 " See also pos. 88k

The eastern rock is a flat grass covered shoal area about 15 meters in diameter, the high point being 6.6 feet below MLLW. See position 1a for fix. (12)

These positions are ^{approximately} the same as those on H-3973.

Both of these rocks should be charted as shown on Chart 8517 but the depths should be changed to the shoaler depths obtained in this survey.

The obstruction indicated on T-9123 was investigated and found to be non-existent. The shoal sounding in the immediate area was 5.8 fms. below MLLW. The obstruction should be deleted from the manuscript. (See positions 90a-101a.) Concur. Photogrammetry notified and will remove from manuscript. 6-8-76.

Item 8 - "The 7 fms. charted from H-3973 may be in error. The 7 fms. was not found in the sounding volumes."

The 7 fm. sounding in item 8 was found to lie approximately 80 meters southeast of charted position. Its' position on an 80,000 scale chart would not change appreciably.

Development adequate to discredit 7-fm. Correctly charted

Item 9 - "The 5 fms. charted from H-3973 was plotted in error and should fall about 150 meters to southward."

A sounding of 3.9 fms. was found approximately 100 meters south of the 5 fms. charted on H-3973. See positions 52a - 53a .

see Review par. 6 Correctly charted.

On chart 8517 this 5 fms. should be deleted and the ^{2.2}~~3.6~~ inserted.

L. COMPARISON WITH THE CHART:

Chart 8517, 1:80,000 scale, printed in 1950 and revised in 1959 covers the area of this survey.

The rock awash shown on the chart and the manuscript T-9123, Lat. 60°-30.23' Long. 148°-10.95', ~~should be deleted.~~* See page 7, volume 8 of the sounding volumes. * Recommend charting as submerged rock. Not found by visual search.

The rocks awash shown on the chart and the large foul area indicated on manuscript T-9123, Lat. 60°-30.15 Long. 148°-10.70', should be deleted. Visual inspection at low tide and sounding did not reveal any rocks or foul areas more than 20 meters offshore. These rocks should not be shown on the chart and the foul area should not be shown on the manuscript T-9123. Not presently shown on either.

The rock shown on the manuscript T-9125 and the Chart 8517, Lat. 60°-29.66' Long. 148°-11.08', should be deleted. Visual search at low tide and development of area failed to reveal any sounding under 10 fms. in the vicinity. (See positions 10a - 27a) Not presently on T-9125 or chart 8517

Many jelly fish schools were noted in the western cove at the southern end of McClure Bay and are possibly the source of some of the rocks obtained from photogrammetry.

In Blue Fiord, Lat. 60°-27.9' Long. 148°-14.2', the reef awash shown on manuscript T-9125 and on Chart 8517 as a rock awash should be deleted. No sounding under 30 fms. were obtained in this vicinity. Not presently charted

M. DANGERS AND SHOALS:

A dangerous shoal 2.6 feet below MLLW exists at Lat. $60^{\circ}-30.02'$ Long. $148^{\circ}-11.08'$. (See position $7a$ and soundings between $35a$ and $37a$.)

A rock is shown on the chart in this approximate position but is not on manuscript T-9125. This should be added to advance manuscript.

N. ADEQUACY OF SURVEY:

This survey is deemed complete and adequate for charting.

O. AIDS TO NAVIGATION:

There are no aids to navigation listed in the light list but there is a bouy, Lat. $60^{\circ}-32.8'$ Long. $148^{\circ}-09.95'$, off Port Nellie Juan Cannery Dock. It is a red nun bouy, No. 2.

P. SILTED AREAS:

The cove at the Port Nellie Juan Cannery seems to be silted a small amount.

Q. STATISTICS:

- 112.1 Nautical miles of sounding lines
- 1503 Positions
- 39 Bottom Samples
- 4.8 Square miles of hydrography
- 2 Tide stations
- 0 Current & magnetic stations.

R. GEOGRAPHIC NAMES:

No changes or additions were made in geographic names.

S. MISCELLANEOUS:

McClure Bay has currents which hampered work and caused discrepancies in the spacing.

T. TABULATION OF APPLICABLE DATA:

- 1. Signal List
- 2. Fathometer Corrections
- 3. Velocity Corrections
- 4. Tidal Note

Approved and Forwarded:

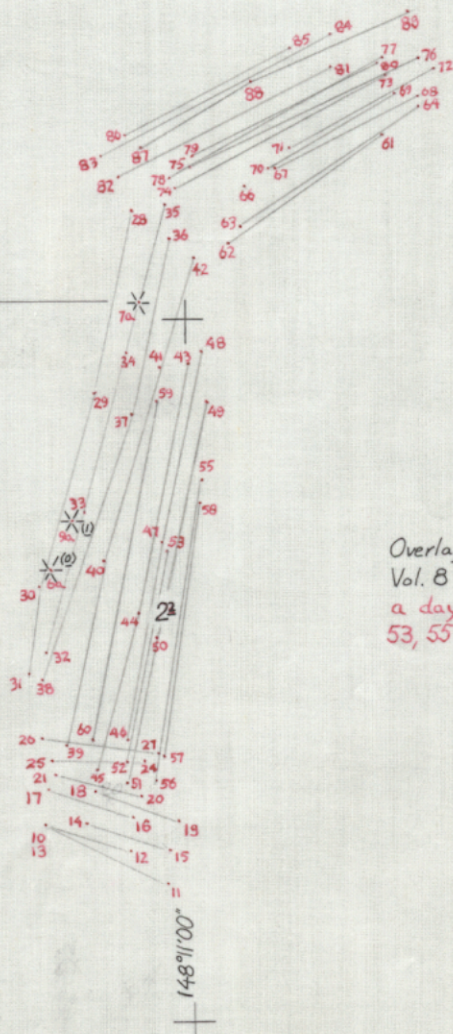
F. X. Popper
F. X. Popper, CDR., C&GS
Commanding Ship BOWIE

Respectfully submitted,

Andrew Tczap
Andrew Tczap
ENS C&GS, USC&GSS BOWIE

Rk covered 2 Ft at MLLW

60°30'00"



Overlay to accompany Survey H-8595
Vol. 8 July 29, 1961 Launch 184
a day Pos. 6, 7, 9, 10 thru 21, 24 thru
53, 55 thru 64, 66 thru 89.

Hydrographic Name	Source	Hydrographic Name	Source
Oak	BO-C-61		
Oil (Tide Gage)	"		
Owl	T-9123		
Pad	T-9123		
Pear	1948, Tri, sta. PEAR		
Pie	BO-C-61		
Pup	T-9125		
Quad	1948, Tri. sta. QUAD		
Quo	BO-C-61		
Rig	T-9125		
Ripe	Tri.Sta.RIPE, 1948		
Rot	T-9125		
Sad	BO-C-61		
Sag	Vol. 1, page 3		
Sam	T-9125		
She	"		
Sir	T-9123		
Sky	"		
Sop	"		
Sob	T-9125		
Sub	T-9123		
Tan	T-9123		
Tax	T-9125		
Tub	Vol. 1, page 3		
Valor	Tri.Sta.VALOR, 1948		
Vex	BO-A-61		
Vim	Vol. 1, page 3		
Wad	T-9123		
War	Vol. 1, page 3		
Wax	Vol. VI, page 27		
Who	T-9123		
Woo	T-9123		
Zag	BO-A-61		
Zone	Tri.Sta.ZONE, 1948		

LIST OF HYDROGRAPHIC SIGNALS H-8595 (BO-10-3-61)

USC&GSS BOWIE - PROJECT OPR-277

Hydrographic Name	Source	Hydrographic Name	Source
Abe	BO-C-61	Fin	T-9123
Ace	"	Fly	Vol. 1, page 4
Act	T-9123	Fun	T-9125
Adam	Tri. Sta. ADAM, 1948	Gas	Transferred from H-3594
Add	BO-C-61	Gal	Vol. 1, page 4
Amp	T-9123	Get	T-9123
Amy	T-9123	Gin	T-9125
Bag	T-9125	Gus	T-9123
Bat	Vol. 1, page 5	Hank	Recoverable topo station
Bay	Tri. Sta. McClure Bay Port Nellie Juan Cannery West Gable, 1948	His	Vol. IV, page 56
Big	Vol. 1, page 5	Hop	BO-C-61
Blue	Recoverable topo station	Hub	T-9125
Bum	BO-C-61	Ice	T-9123
Bus	T-9123	Irk	T-9123
Car	BO-C-61	Jaw	Vol. 1, page 3
Caw	T-9123	Jim	T-9123
Cod	BO-C-61	Job	BO-C-61
Cop	T-9125	Jug	T-9123
Cry	T-9123	Ked	BO-C-61
Cur	Vol. 1, page 4	Key	T-9123
Cut	BO-C-61	Kid	T-9123
Day	Vol. 1, page 4	Lam	T-9123
Dip	BO-C-61	Lax	T-9123
Don	T-9125	Let	"
Ear	Vol. 1, page 4	Lux	"
Eat	BO-C-61	Mag	T-9125
Elf	T-9125	Man	"
Elm	T-9123	Mar	T-9123
End	BO-C-61	Mid	T-9123
Erg	"	Money	1948, Tri. sta. MONEY
Eva	"	Mug	BO-C-61
Far	Vol. 3, page 18 Vol. 2, page 54	Mum	T-9123
Fat	T-9123	Nay	Vol. VI, page 27
Fig	"	Nut	T-9123

TOTAL FATHOMETER CORRECTIONS (ECHO)

(Bar Check Corr & Phase Corr)

Fathometer #57 - 30

A Scale - - - - - +0.3
B Scale - - - - - +0.4
C Scale - - - - - +0.3
D Scale - - - - - +0.5
E Scale - - - - - +1.3

Fathometer #57 - 28

A Scale - - - - - +0.2
B Scale - - - - - +0.2
C Scale - - - - - +0.3
D Scale - - - - - +0.2
E Scale - - - - - +0.8

Fathometer #57 - 25

A Scale - - - - - +0.2
B Scale - - - - - -0.4
C Scale - - - - - -1.0
D Scale - - - - - -1.5
E Scale - - - - - -2.0

VELOCITY CORRECTIONS

For a,b,c & d days:

<u>From</u>	<u>to</u>	<u>Corr</u>
00 fms.	5 fms.	0 fms.
5	20	0.1
20	45	0.2
45	65	0.3

Above 65 fms. the correction is zero.

For remainder of days:

<u>From</u>	<u>to</u>	<u>Corr</u>
0 fms.	5 fms.	0 fms
5	10	0.1
10	20	0.2
20	35	0.3
35	50	0.4
50	65	0.5
65	85	0.6
85	100	0.7
100	120	0.8
120	140	0.9
140	160	1.0
160	180	1.1
180	200	1.3

TIDAL NOTE

Culross Passage South predicted tides were used to reduce boat sheet soundings.

Blue Fiord portable gage, lat. $60^{\circ}-29.5'N$, long. $148^{\circ}-14.6'W$, was used to reduce soundings in Blue Fiord.

Applegate Island, lat. $60^{\circ}-37.4'N$, long. $148^{\circ}-09.8W$, was used to reduce soundings in McClure Bay.

At the Blue Fiord gage 6.8 ft. on the staff corresponds to MLLW.

At Applegate Island 6.6 ft. on the staff corresponds to MLLW.

RAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~EXCLUDED FROM REVISION SURVEYS~~

March 29, 1962

Division of Charts: R. H. Carstens

Plane of reference approved in
8 volumes of sounding records for

HYDROGRAPHIC SHEET 8595

Locality Prince William Sound, Alaska

Chief of Party: F. X. Popper (1961)
Plane of reference is mean lower low water, reading
6.6 ft. on tide staff at Applegate Island
12.9 ft. below B. M. No. 1
6.8 ft. on tide staff at Blue Fiord
10.1 ft. below B.M. Blue NO 1

Height of mean high water above plane of reference is:
Applegate Island 11.0 ft.
Blue Fiord 11.0 ft.

Condition of records satisfactory except as noted below:

NOTE: Tide reducers for positions listed below have been revised in red and verified.

Vol.	Pos.
4	7f & 8f /
5	8h & 9h /

J. M. Symons
Chief, Tides and Currents Branch
~~Chief, Division of Tides and Currents~~

GEOGRAPHIC NAMES
Survey No. H-8595

Name on Survey	Sources										BGN	
	A	B	C	D	E	F	G	H	K			
Blue Fiord	/										/	1
McClure Bay	/										/	2
												3
												4
												5
												6
												7
												8
												9
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												26
												27

George M. Boer
Geographic Names
13 March 1960

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8595...

Records accompanying survey: Smooth sheets¹;
 boat sheets ..¹.; sounding vols. ...⁸.; wire drag vols.;
 Descriptive Reports ...¹.; graphic recorder envelopes ...³.;
 special reports, etc.

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

Number of positions on sheet		1503
	
Number of positions checked		726
	
Number of positions revised		55
	
Number of soundings revised (refers to depth only)		206
	
Number of soundings erroneously spaced		289
	
Number of signals erroneously plotted or transferred		1
	
Topographic details	Time	40hr.
	
Junctions	Time	2hrs.
	
Verification of soundings from graphic record	Time	100 hrs.
	
Special adjustments	Time	249 hrs.
	

Verification by *P. Derkazarian*..... Total time 391... Date *Aug 15 1972*

Reviewed by *A. Baumgardner*..... Time 112... Date 12-4-72

Inspected by *W. H. Engle*..... 18hrs 6-9-76

H-8595

Information for Future Presurvey Reviews

None

<u>Position</u>	<u>Index</u>	<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
602	1482	2	1	50 years
603	1481	1	1	50 years
603	1482	1	1	50 years

OFFICE OF MARINE SURVEYS AND MAPS

MARINE SURVEYS DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8595

FIELD NO. BO-10-3-61

Alaska, Prince William Sound, McClure Bay and Blue Fiord

SURVEYED: June 28 - August 3, 1961

SCALE: 1:10,000

PROJECT NO.: CS-277

SOUNDINGS: 808 Depth Recorder
Lead Line

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party F. X. Popper
Surveyed by P. D. Montjoy
Protracted by A. Tczap
Soundings Plotted by A. Tczap
Verified and Inked by R. DerKazarian
Reviewed by S. Baumgardner
Date: December 1, 1972
Inspected by D. R. Engle

1. Description of the Area

This survey covers Blue Fiord and McClure Bay off Port Nellie Juan. The bottom generally slopes sharply from the shoreline to maximum depths of about 112 fathoms in Blue Fiord and 103 fathoms in McClure Bay. The shoreline is indented by many small coves and inlets and is lined with numerous rocks.

Predominant bottom characteristics of the areas are mud and shale.

2. Control and Shoreline

The source of control is adequately described in part F of the Descriptive Report.

The shoreline originates with reviewed photogrammetric manuscripts T-9123 and T-9125 of 1954. Minor shoreline revisions in red are by the hydrographer.

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 and the investigation of least depths are considered adequate.

4. Condition of the Survey

The sounding records, smooth plotting, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual; however, more information would have been desirable on the investigation of rocks.

5. Junctions

An adequate junction was made with H-8594 (1961) to the northeast of Blue Fiord. Junctions with H-7794 (1948) to the northwest of Blue Fiord and H-8606 (1961) to the north of McClure Bay will be discussed in the reviews of those surveys.

6. Comparison with Prior Survey

H-3973 (1917) 1:20,000

There are no prior surveys by the National Ocean Survey in Blue Fiord.

This prior survey covers McClure Bay. Comparison of the prior and the present surveys reveals only minor change in the bottom. The closer development of the present survey affords better delineation of the bottom features than the prior survey.

The questionable 5-fathom sounding (PSR Item 9) was believed to have been misplotted on H-3973 (1917) and was moved 150 meters southward during the presurvey review. It was then misplotted on the boat sheet at a third position. However, during the course of the survey the development of all three areas was adequate to discredit this 5-fathom sounding. A shoal with a least depth of 2.2 fathoms was found about 100 meters northeast of the original position of the 5 in latitude $60^{\circ}29.79'$, longitude $148^{\circ}11.04'$ and is presently charted.

The present survey is adequate to supersede the prior survey in the common area.

7. Comparison with Chart 8517 (latest print date January 15, 1972)

A. Hydrography

The charted hydrography originates with the previously discussed survey which requires no further consideration, supplemented by information from the boat sheet and unverified smooth sheet of the present survey.

The present survey is adequate to supersede the charted hydrography within the common area.

B. Aids to Navigation

McClure Bay Buoy #2 located on the present survey at latitude 60°32.84', longitude 148°09.95' was deleted from the chart subsequent to the date of the survey from information published in Notice to Mariners 23 of 1965.

8. Compliance with Instructions

This survey adequately complies with the Project Instructions.

9. Additional Field Work

This is a good basic survey and no additional hydrography is required.

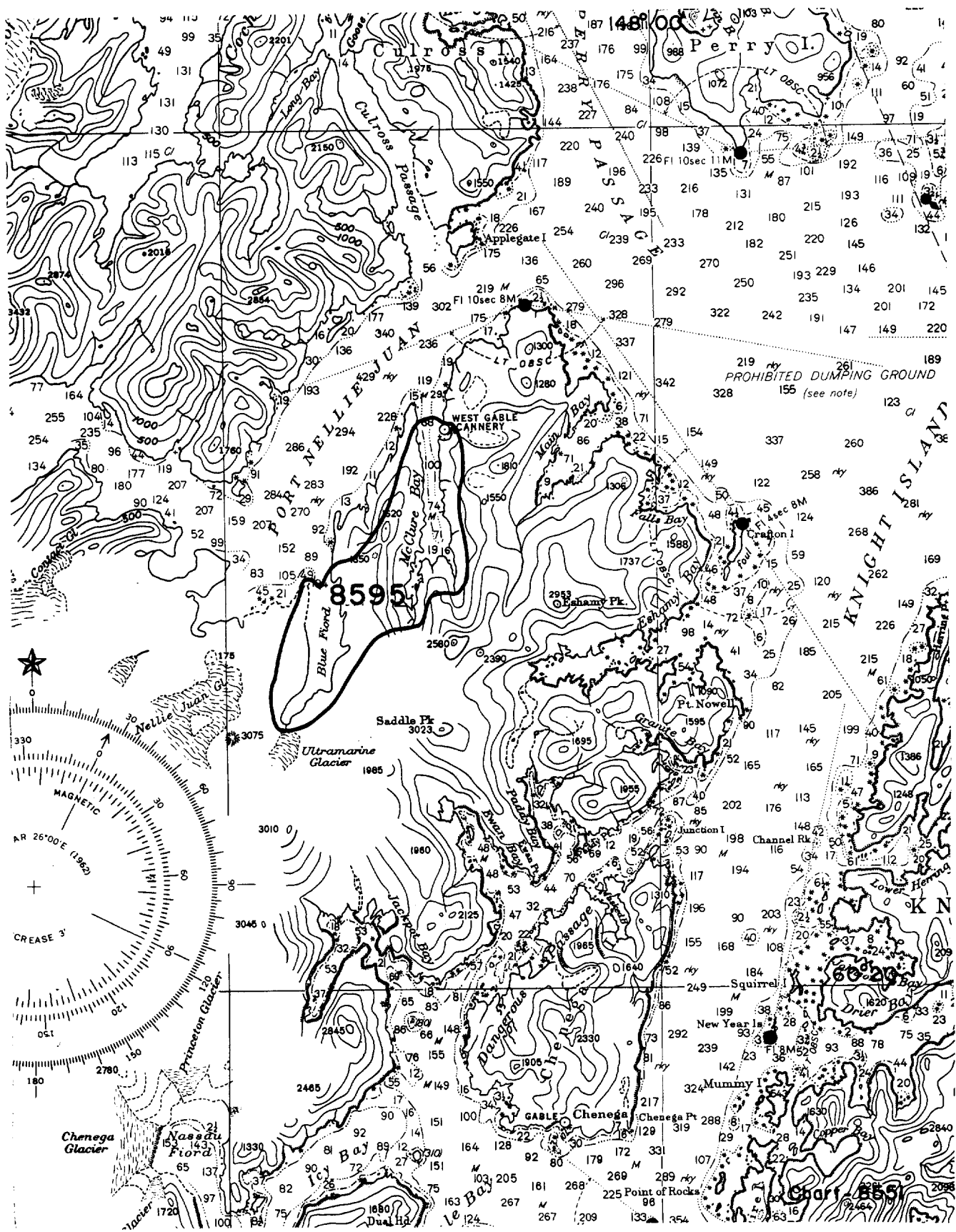
Examined and Approved:

a z Patil

Chief
Marine Surveys Division

R. H. Houlton

Associate Director
Office of Marine Surveys
and Maps



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8595

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
4/16/62	8517	D. Jones	Before After Verification and Review
2-4-63	8517	E. M. Brogini	Before After Verification and Review <i>Comp. app'd</i>
2-24-65	8551	J. J. Streifler	Before After Verification and Review
4-14-71	8551	C. S. Forbes	Before After Verification and Review <i>app'd 100 fm curves</i>
	8551	T. ALEXANDER	Before After Verification and Review <i>Revised curves and sndgs. (Critical corrns. only)</i>
4-23-76	8517	C. S. FORBES	Before After Verification and Review <i>Before Insp.</i>
			<i>Added sndgs. & rocks, low water revised 10fm curve</i>
12/21/76	8517	M. J. Friese	Before After Verification and Review <i>INSPECTION</i>
			<i>Recommend N to M for # in lat. 60°30'04" long. 145°09'9"</i>
11/10/77	8517	Mark J. Friese	Before After Verification and Review <i>INSPECTION Pub in NMS/77</i>
			<i>Fully App'd hydro throughout common area 12-27-76</i>
7-29-91	16 700	C. S. Forbes	Before After Verification and Review <i>Considered</i>
9-2-91		J. J. Streifler	<i>Fully Applied</i> <i>Dwg # 26</i>
			Before 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.