9315

Diag. Cht. Nos. 8002-2 & 8202-2

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. MA-20-1-72

Office No. H-9315

LOCALITY

State .... ALASKA

General Locality GLACIER BAY

Locality ... JOHN HOPKINS INLET AND VICINITY

1972

CHIEF OF PARTY

G. M. Poor, Cdr.

LIBRARY & ARCHIVES

DATE 6-14-74

☆U.S. GOVERNMENT PRINTING OFFICE: 1974-763-098

9315

FORM C&GS-537 (5-66)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REGISTER NO. H-9315

FIELD NO. MA-20-1-72

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State ALASKA

General locality ~~GLACIER BAY~~ and VICINITY

Locality JOHN HOPKINS INLET, ~~REID INLET, EAST OF RUSSELL ISLAND~~.

Scale 1:20,000 Date of survey 26 JUNE --- 21 AUGUST, 1972

Instructions dated 5 APRIL 1972 Project No. OPR-460

Vessel NOAA Ship McARTHUR CSS-30, LAUNCHES AR-1, AND AR-2

Chief of party GEORGE M. POOR, CDR, NOAA

Surveyed by McARTHUR PERSONNEL

Soundings taken by echo sounder, hand lead, pole RAYTHEON DE-723 NOS. 557,915,916,920

Graphic record scaled by McARTHUR PERSONNEL

Graphic record checked by McARTHUR PERSONNEL

Protracted by _____ Automated plot by PMC Gerber Digital Plotter

Soundings penciled by _____

Soundings in fathoms ~~feet~~ at ~~MEAN~~ MLLW

REMARKS:

USCOMM-DC 37009-P66

Descriptive Report

to Accompany

Hydrographic Sheet MA-20-1-72/H9315

Glacier Bay, Alaska

Scale: 1:20,000

NOAA Ship McARTHUR CSS-30

CDR George M. Poor, Commanding

A. PROJECT

This survey was part of OPR-460, Glacier Bay, Alaska. It was accomplished under Project Instructions dated 5 April 1972 and in accordance with Pacific Marine Center OPORDERS.

B. AREA SURVEYED

The area surveyed encompassed John Hopkins Inlet, Reid Inlet, and the area to the east of Russell Island, erroneously named Wright Sound on chart C&GS 8202 (see Geographic Names Report, Glacier Bay). The area lies to the ~~east~~ west of 136° 40' 00" and is bounded on the south and west by land. It is bounded on the north by land and the mouth of Tarr Inlet. The sheet joins contemporary survey H-~~9136~~ 9316 (MA-20-2-72) on the north and ~~prior~~ survey H-9138 (FA-20-3-70) on the east.

The hydrographic control was established during June and July 1972. Hydrography was accomplished during June, July, and August 1972.

C. SOUNDING VESSELS

McARTHUR and its two launches were used to accomplish the hydrography. To expedite hydrography two boat sheets were made. They were designated MA-20-1-72-A and MA-20-1-72-B. The applicable color codes and position numbers follow:

McARTHUR	Violet	6001-6276 (A)
Launch AR-1	Red	1500-2633 (A) 4500-4784 (B) 4788-5153 (B) 5155-5427 (B)
Launch AR-2	Blue	0001-0779 (A) 3000-3664 (B)

Detatched Positions (Field Edit)	Green	9001-9051 9200-9219 9231-9234 9245-9259 9278-9296 9299-9304 9311-9321 9323-9355 9404 9480-9499 9700-9702 9731-9749
Detatched Positions (Bottom Samples)	Green	9500-9533 9551-9562

D. SOUNDING EQUIPMENT

The survey was accomplished using Raytheon DE-723 fathometers. Fathometer serial no. 920 was used on launch AR-1. Fathometers serial nos. 557, 916, and 920 were used on launch AR-2. Fathometer serial no. 915 was used on McARTHUR. Depths ranged to 2057 fms in the area surveyed.

The echo sounder velocity corrections were determined by serial temperature and salinity observations from Nansen bottles and the MARTEK model TDC metering system. Observations were made at the time that hydrography was being prosecuted. Velocity corrections were computed and determined to be less than one-half per cent of the sounded depths throughout the surveyed area, and therefore need not be applied. Corrections for initial error and corrections determined from the results of bar checks were tabulated and are to be applied. A tabulation of all corrections is appended to the body of this report.

E. SMOOTH SHEET

A signal overlay was plotted by Gerber Digital plotter and verified by McARTHUR personnel. The position and sounding data were logged by McARTHUR personnel. The final smooth sheet is to be plotted electronically and verified by personnel at PMC.

F. CONTROL

All hydrography was accomplished by visual three-point sextant fix methods. Most control signals were established on 2nd order traverse stations or were located by intersection with a WILD T-2 theodolite from the traverse stations. Nine control signals were located by sextant fixes. Geographic positions for hydrographic signals were determined by computation using the WANG model 700 calculator in conjunction with programs in the Wang Geodetic Program Library. A list of control signals is appended to this report.

G. SHORELINE

Shoreline was transferred to the boatsheet from Class III map manuscripts T-12732, T-12733, T-12734, T-12740, T-12741, T-12745, T-12743, T-12744, T-12757 T-12753, T-12754, and T-12756. Shoreline on manuscript T-12742 was incomplete and shoreline in Reid Inlet (T-12755) was not available. Aerial photography was flown for these manuscripts in June 1972 and pending their completion the approximate shoreline on these manuscripts (scaled from USGS topographic map quadrangle: Mt. Fairweather, D-3) must suffice.

All shoreline details were verified. Discrepancies that were found were noted on the field edit ozalids. Particular attention is drawn to the occasional delineation of small icebergs as offshore rocks on the unedited maps.

The mean lower low water line was not defined in many areas because of the steeply sloping and irregular rocky shore. Officers in charge of launches were instructed to parallel the shore at a distance of 20 meters or more and to operate in depths of no less than 5 fathoms when running the interior shoreline.

H. CROSSLINES

Crosslines, consisting of approximately nine per cent (34.2/387.4) of the principal system of sounding lines were in good agreement with the main scheme sounding lines.

I. JUNCTIONS

Good agreement between this sheet and the adjacent contemporary survey (H-9316) 1972 and ~~prior~~ (H-9138) 1970 ~~surveys~~ was found. No adjustment is required.

J. COMPARISONWITH PRIOR SURVEYS

A formal pre-survey review was not provided because there were no prior surveys in the surveyed area. However, there was one item that was sought for and treated as a pre-survey review item in accordance with project instructions.

Pre-survey Review Item:

Item	Latitude/Longitude	Verified	Recommendation
Spectacular Monument	Unknown (off Russell Island, Tarr Inlet)	Not found CONCUR SRB	Probably Nonexistent

K. COMPARISON WITH THE CHART

The few soundings on USC&GS Chart 8202, scale 1:209,978, 17th Ed.,

11/71, are indicative of the soundings that were observed in the course of hydrography.

A "PA" rock is shown on the afore-mentioned chart at 58°52.8'N, 136°49.9'W. The rock was reported by NOAA Ship Fairweather field party enroute to a panel site. Lacking hydrographic control in the area, the party estimated the position of the rock. A hydrographic development of the area by McARTHUR has yeilded no evidence of the rock in the position shown on chart 8202. Several prominent offshore rocks lie 2.5 N.M. to the west of the "PA" rock. One of these rocks, at 58°52.95'N, 136°50.30'W, bares eleven feet at MLLW and in all probability is the one reported by Fairweather. It is recommended that the "PA" rock be removed from chart 8202 and that rocks be charted as shown on this survey. Concur SRB

An islet shown at 58°53.9'N, 136°55.1'W was not found as shown. A deep cleft in the rocky shoreline had been misinterpreted by the photo compiler as a water passage. The cleft terminates well above the MHWL (see Field Edit Report, OPR-460).

Several shoal areas were delineated by McARTHUR that are not shown on chart 8202. They are:

Latitude/Longitude	Least Depth	Position Nos.
58°56.9'N/136°52.2'W	4.8 fm	3629-3664
58°56.5'N/136°52.1'W	4.8 fm	Divers (1907-1908)
58°55.6'N/136°45.3'W	4.5 fm	456-499
58°52.2'N/136°48.6'W	2.9 fm	2114-2159
58°55.2'N/136°46.1'W	bares app. 11 ft. at MLLW	9000-9001

Attention is also drawn to a natural small boat basin (Lat 58°56'15"N, Long 136°46'45"W) north of Russell Island developed by McARTHUR at 1:10,000 scale and shown as an inset on boatsheet MA-20-1-72.

L. ADEQUACY OF SURVEY

The survey is considered complete and adequate for charting.

M. AIDS TO NAVIGATION

There are no aids to navigation in the area of the survey.

N. STATISTICS

	McARTHUR	AR-1	AR-2	Skiff's Total
Positions	257	2051	1436	105 3638
Sounding Lines (n.m.)	59.8	280.0	81.8	
Area Surveyed (s.n.m.)	9.0	19.6	15.1	
Bottom Samples	46	--	--	

O. MISCELLANEOUS

In general the survey area has the characteristic configuration of a glaciated valley. Precipitous slopes along the sides give way to a relatively flat and featureless bottom. The extremely precipitous nature of the sides give rise to two phenomena that affect the reliability of soundings in this area. 1) It generates a high incidence of "side echoes" and "missed" soundings. 2) While running ship hydrography, a difference of from 2 to 5 fms may be observed between soundings on the port and starboard transducers when sounding parallel to, and close by, the steep slopes. Such differences are an indication of errors inherent in echo soundings on steep slopes with wide beam transducers. Errors deriving from sources 1) or 2) will yield observed soundings on the fathometer that are probably less than the actual depth below the vessel.

Surveying in ice-laden waters demands frequent minor course changes. This will manifest itself in minor irregularities in spacing and course made good vs. course steered in some cases.

P. RECOMMENDATIONS

None.

Q. REFERENCES TO REPORTS

1) Season's Report, NOAA Ship McARTHUR, 1972

2) Coast Pilot Report OPR-460, 1972

3) Pre-Survey Review Report OPR-460, 1972

4) Geodesy Report OPR-460, 1972

5) Hydrographic Signal Location Report OPR-460

6) Field Edit Report OPR-460, 1972

7) Geographic Names Report OPR-460, 1972

8) Sounding Corrections Report OPR-460, 1972

Abstract of Corrections

to Echo Soundings (MA-20-1-72)

As was previously noted, sounding velocity correctors are not to be applied to soundings because all correctors are less than one-half per cent of the sounded depth. A tabulation of sounding correctors vs. depth determined by observations in the survey area while hydrography was in progress follows.

DEPTH (fm)	SOUNDING CORRECTOR (fm)			
	Cast #1	Cast #2	Cast #3	Cast #5 (Johns Hopkins Inlet)
2	-.00	-.02	-.00	-.03
7	-.01	-.06	-.02	-.07
12	-.02	-.08	-.04	-.08
17	-.03	-.09	-.05	-.09
22	-.04	-.10	-.05	-.09
27	-.05	-.10	-.06	-.10
32	-.06	-.11	-.06	-.10
37	-.07	-.12	-.07	-.10
42	-.08	-.13	-.07	-.10
47	-.09	-.14	-.08	-.11
52	-.10	-.16	-.09	-.11
57	-.12	-.19	-.10	-.12
62	-.14	-.23	-.11	-.13
67	-.16	-.26	-.12	-.14
72	-.18	-.30	-.14	-.16
77	-.20	-.32	-.15	-.17
82	-.23	-.35	-.17	-.19
87	-.26	-.37	-.18	-.21
92	-.29	-.40	-.21	-.23
97	-.32	-.43	-.23	-.25
100	-.35 (102)	-.46	-.26	-.34
120	-.38 (107)	-.60	-.38	-.44
140	-.45 (120)	-.72	-.50	-.54
160	-.56 (140)	-.82	-.61	-.62
180	-.66 (160)	-.91	-.71	
200	-.75 (180)	-.99	-.80	
220	-.84 (200)			

A compendium of the data that was employed to generate the following table has been submitted under separate cover.

TRA (TC/TI) PRINTOUT
MA-20-1-72
FATHOMETER S/N 915
CSS-30

CORRECTIONS IN FATHOMS

30319072

061830 0 1002 0001 190 000000 000000
112500 0 1003
120300 0 1002

TRA (TC/TI) TAPE

MA-20-1-72 -

FATHOMETER S/N 920 -

AR-1 -

CORRECTIONS IN FATHOMS

084900 0 0002 0001 179 000000 000000
082700 0 0003 0001 180 000000 000000
124700 0 0002
160300 0 0001
180300 0 0002
212000 0 0001
083000 0 0002 0001 189 000000 000000
082700 0 0002 0001 191 000000 000000
083600 0 0003
090100 0 0002
153230 0 0003
154700 0 0002
121430 0 0002 0001 193 000000 000000
083300 0 0002 0001 194 000000 000000
111245 0 0001
134900 0 0002
091230 0 0002 0001 201 000000 000000
110500 0 0003
~~185330 0 0002~~ - Not erased on tape

183330 0 0002 0001 215 000000 000000
210000 0 0001
212030 0 0002
085200 0 0002 0001 216 000000 000000
092330 0 0003
095400 0 0002
100345 0 0003
112330 0 0002
191830 0 0001
192530 0 0002
203700 0 0001
205400 0 0002
183400 0 0002 0001 217 000000 000000
183300 0 0002 0001 219 000000 000000
191530 0 0001
103330 0 0002 0001 220 000000 000000
111300 0 0003
122700 0 0002
124900 0 0003
132945 0 0002

184900/0 0003/
130245/0 0002/
093430/0 0002/0001/221/000000 000000
151800/0 0003/
153130/0 0002/
085330/0 0002/0001/222/000000 000000
145000/0 0001/
152900/0 0002/
125330/0 0000/0001/235/000000 000000

TRA (TC/TI)

MA-20-1-72 -

FATHOMETER S/N 916-

AR-2 -

CORRECTIONS IN FATHOMS

134000-0 0002-0001-178-000000 000000
201700-0 0001-
131400-0 0002-0001-179-000000 000000
192200-0 0003-
195300-0 0002-
220300-0 0003-
084300-0 0002-0001-188-000000 000000
134200-0 0003-
135100-0 0002-
142100-0 0001-
143500-0 0002-
150000-0 0001-
150700-0 0002-
153600-0 0003-
160800-0 0002-
201730-0 0003-
202830-0 0002-
093430-0 0002-0001-189-000000 000000
112200-0 0001-
121200-0 0002-
160330-0 0002-0001-190-000000 000000
202500-0 0003-
204700-0 0002-
211845-0 0001-
090130-0 0002-0001-192-000000 000000
092000-0 0003-
130200-0 0002-
152400-0 0001-
155430-0 0002-
182400-0 0001-
211200-0 0002-
091330-0 0003-0001-193-000000 000000
093530-0 0004-
104530-0 0002-
143730-0 0002-0001-200-000000 000000
102330-0 0001-0001-217-000000 000000
123000-0 0003-
141500-0 0002-
101700-0 0002-0001-218-000000 000000
105530-0 0001-
110930-0 0002-
112700-0 0002-0001-220-000000 000000

List of Signals

(MA-20-1-72)

I: Intersection

R: Resection

Name Used in Hydrographic Survey	Number	Latitude	Longitude	Geo-Pro Code	Origin
	02	58°53'25.013"	136°37'42.026"	243	T-2 (I)
MART	04	58°53'35.322"	136°39'48.068"	139	MART 1966
	06	58°53'50.852"	136°40'47.161"	243	T-2 (I)
	08	58°54'36.457"	136°41'27.571"	243	T-2 (I)
	10	58°54'57.808"	136°42'11.307"	243	T-2 (I)
	12	58°55'35.926"	136°44'00.844"	243	T-2 (I)
	14	58°56'01.616"	136°45'36.820"	243	T-2 (I)
DEB	16	58°56'24.024"	136°47'21.375"	139	DEB 1970
	18	58°57'19.383"	136°48'45.896"	243	T-2 (I)
	20	58°57'19.097"	136°50'54.044"	243	T-2 (I)
	50	58°51'31.350"	136°40'37.054"	243	T-2 (I)
	52	58°52'01.784"	136°42'39.494"	243	T-2 (I)
TINI	54	58°52'14.587"	136°43'46.258"	139	TINI 1966
MICH	56	58°52'38.901"	136°44'54.847"	139	MICH 1970
	58	58°52'41.645"	136°47'25.049"	243	T-2 (I)
IBACH	59	58°52'36.145"	136°47'55.624"	139	IBACH 1972
	60	58°51'50.053"	136°48'03.273"	252	Sextant (R) hydro
	62	58°51'03.722"	136°48'08.509"	252	Sextant (R) hydro
	64	58°50'38.229"	136°48'21.398"	252	Sextant (R) hydro
	66	58°50'34.035"	136°49'01.742"	243	T-2 (I)
REID INLET	68	58°50'49.455"	136°49'02.208"	139	REID INLET 1972
	70	58°51'21.124"	136°49'16.744"	243	T-2 (I)
	72	58°51'59.742"	136°49'01.070"	243	T-2 (I)
	74	58°52'24.699"	136°49'29.264"	252	Sextant (I) hydro
	76	58°52'56.830"	136°50'29.316"	243	T-2 (I)
	78	58°53'10.104"	136°51'26.708"	243	T-2 (I)
	80	58°53'19.450"	136°52'18.831"	252	Sextant (I) hydro
	82	58°53'34.261"	136°54'03.242"	243	T-2 (I)
	84	58°54'03.012"	136°55'15.700"	243	T-2 (I)
SARAH	86	58°55'07.717"	136°55'48.481"	139	SARAH 1970
	88	58°55'51.286"	136°55'13.745"	243	T-2 (I)
	90	58°56'31.244"	136°54'51.142"	243	T-2 (I)
	92	58°57'17.128"	136°55'20.019"	243	T-2 (I)
	100	58°54'20.312"	136°47'06.874"	243	T-2 (I)
	102	58°55'31.231"	136°47'53.355"	243	T-2 (I)
	104	58°56'05.497"	136°48'38.864"	243	T-2 (I)
	106	58°56'32.308"	136°48'36.974"	243	T-2 (I)

Name Used in Hydrographic Survey	Number	Latitude	Longitude	corto code	Origin
	108	58°56'49.594"	136°49'45.031"	252	Sextant (I) hydro
	109	58°56'55.318"	136°50'25.007"	252	Sextant (R) hydro
	110	58°55'48.477"	136°51'23.644"	243	T-2 (I)
TERRY	111	58°56'19.157"	136°51'34.559"	139	TERRY 1970
	112	58°55'23.400"	136°50'24.891"	243	T-2 (I)
	114	58°54'39.910"	136°49'12.954"	243	T-2(I)
	150	58°54'26.960"	136°43'43.452"	243	T-2 (I)
WILLY	152	58°55'28.664"	136°46'23.522"	139	WILLY 1970
	200	58°55'33.334"	136°57'51.015"	243	T-2 (I)
JOHN HOPKINS	202	58°55'19.455"	136°59'51.817"	139	JOHN HOPKINS1972
	204	58°55'06.217"	137°02'11.507"	243	T-2 (I)
	206	58°54'34.010"	137°02'58.030"	243	T-2 (I)
	208	58°53'14.968"	137°03'31.657"	252	Sextant (R) hydro
GLEN	210	58°52'22.118"	137°04'47.516"	139	GLEN 1972
ANITA	212	58°51'39.004"	137°05'54.007"	139	ANITA 1972
	214	58°50'54.722"	137°07'10.806"	243	T-2 (I)
	216	58°50'15.575"	137°08'02.675"	243	T-2 (I)
	252	58°54'01.732"	136°58'02.230"	252	Sextant (R) hydro
GREG	254	58°54'13.586"	137°00'52.829"	139	GREG 1972
	256	58°53'13.358"	137°01'42.512"	243	T-2 (I)
	258	58°52'26.673"	137°02'50.019"	243	T-2 (I)
	260	58°51'34.368"	137°03'54.226"	243	T-2 (I)
	262	58°50'54.678"	137°04'55.063"	243	T-2 (I)
	264	58°50'16.907"	137°05'42.795"	243	T-2 (I)

S I G*N A L P L O T T E R C A R D S

H-NO.		LATITUDE	LONGITUDE	X	Y	X Cnt's Code	
09315	002	72 58532501	136374202	15801	05311	243	002
09315	004	72 58523532	136394808	14741	05472	139	004
09315	006	72 58535087	136404715	14243	05722	243	006
09315	008	72 58543645	136412755	13900	06461	243	008
09315	010	72 58545782	136421131	13531	06807	243	010
09315	012	72 58553594	136440088	12608	07422	243	012
09315	014	72 58560162	136453682	11800	07836	243	014
09315	016	72 58562401	136472138	10921	08197	139	016
09315	018	72 58571939	136484616	10207	09094	243	018
09315	020	72 58571910	136505405	09134	09087	243	020
09315	050	72 58513135	136403705	14339	03457	243	050
09315	052	72 58520178	136423949	13306	03946	243	052
09315	054	72 58521458	136434624	12744	04152	139	054
09315	056	72 58523891	136445486	12165	04545	139	056
09315	058	72 58524166	136472503	10902	04585	243	058
09315	059	72 58523613	136475561	10645	04494	139	059
09315	060	72 58515006	136480324	10583	03746	252	060
09315	062	72 58510372	136480848	10541	02993	252	062
09315	064	72 58503823	136482139	10434	02579	252	064
09315	066	72 58503403	136490175	10094	02509	243	066
09315	068	72 58504945	136490218	10090	02760	139	068
09315	070	72 58512114	136491672	09966	03274	243	070
09315	072	72 58515976	136490106	10096	03902	243	072
09315	074	72 58522469	136492927	09858	04306	252	074
09315	076	72 58525681	136502934	09351	04827	243	076
09315	078	72 58531012	136512672	08868	05042	243	078
09315	080	72 58531946	136521885	08429	05193	252	080
09315	082	72 58533426	136540325	07551	05432	243	082
09315	084	72 58540301	136551568	06942	05898	243	084
09315	086	72 58550772	136554849	06665	06949	139	086
09315	088	72 58555129	136551375	06956	07656	243	088
09315	090	72 58563125	136545115	07145	08306	243	090
09315	092	72 58571713	136552002	06902	09051	243	092
09315	100	72 58542033	136470687	11049	06188	243	100
09315	102	72 58553122	136475337	10655	07339	243	102
09315	104	72 58560549	136483888	10271	07894	243	104
09315	106	72 58563232	136483695	10286	08330	243	106
09315	108	72 58564961	136494503	09714	08609	252	108
09315	109	72 58565533	136502502	09378	08701	252	109
09315	110	72 58554848	136512363	08889	07614	243	110
09315	111	72 58561916	136513457	08796	08112	139	111
09315	112	72 58552340	136502487	09383	07208	243	112
09315	114	72 58543991	136491293	09989	06503	243	114
09315	150	72 58542695	136434348	12758	06302	243	150
09315	152	72 58552867	136462350	11410	07299	139	152
09315	200	72 58553332	136575100	05636	07364	243	200

Carb Calc ✓

09315	202	72	58551945	136595181	04621	07138	139	202
09315	204	72	58550620	137021150	03447	06923	243	204
09315	206	72	58543400	137025803	03056	06400	243	206
09315	208	72	58531496	137033165	02772	05117	252	208
09315	210	72	58522211	137044749	02134	04259	139	210
09315	212	72	58513901	137055408	01572	03559	139	212
09315	214	72	58505471	137071079	00926	02841	243	214
09315	216	72	58501558	137080268	00488	02206	243	216
09315	252	72	58540175	136580225	05542	05876	252	252
09315	254	72	58541357	137005284	04108	06068	139	254
09315	256	72	58531335	137014251	03690	05090	243	256
09315	258	72	58522666	137025005	03122	04332	243	258
09315	260	72	58513435	137035421	02581	03483	243	260
09315	262	72	58505468	137045506	02068	02839	243	262
09315	264	72	58501690	137054277	01666	02226	343	264

000061

FORM C&GS-733M (6-66)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VESSEL	PROJ. NO.	YEAR	CHECKED BY	DATE CHECKED
McARTHUR	OPR 460	1972		

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
9500	9 July	58°55'45"	136°46'30"	22.5				gy	Cl, M, med P		
9501	9 July	58°55'20"	136°44'30"	18.0				gy	Cl, M, crs G fne S		
9502	9 July	58°54'40"	136°42'30"	61.0				gn	Cl, M, mP		
9503	9 July	58°53'35"	136°41'20"	68.0				gn	Cl, M.		
9504	9 July	58°53'05"	136°40'10"	69.5				gn	Cl, M, crs G	Small sample.	
9505	9 July	58°52'01	136°40'00	108.0				gn	Cl, M, med P		
9506	9 July	58°52'05"	136°42'05"	66.0				gy	Cl, M, med P	T:1233	
9507	9 July	58°53'00"	136°41'20"	118.0				gy-gn	Cl, M, med P	T:1252	
9508	9 July	58°52'30"	136°41'05"	122.5				gy-gn	Cl, M, crs P, crs bks	T:1319 earth worm	
9509	9 July	58°52'17"	136°40'40"	112.5				gy-gn	Cl, M, med P	worm tube	
9510	9 July	58°53'59"	136°42'51"	90.0				gy-gn	Cl, M, crs G		
9511	9 July	58°54'00"	136°44'48"	195.0				gy-gn	Cl, M, crs G, St		
9512	9 July	58°51'50"	136°46'52"	96.0				gy-gn	Cl, M, crs bk S, G, St		
9513	9 July	58°52'51"	136°46'55"	98.0				gy-gn	Cl, M, G, St		
9514	9 July	58°53'40"	136°46'50"	104.0				gy-gn	Cl, M, St, G	large stone (not in sample bag) worm	
9515	9 July	58°54'11"	136°46'51"	93.0				gy-gn	Cl, M, fne G, P		
9516	9 July	58°55'10"	136°46'43"	52.5				gy-gn	Cl, fne G		

Use more than one line per sample if necessary.

USCOMM-DC 37019-P66

FORM C&GS-733M (6-66)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VESSEL	PROJ. NO.	YEAR	CHECKED BY	DATE CHECKED
M^c ARTHUR	OPR-440	1972		

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
9517	9 July	58°55'46"	136°47'23"	42.5				gy-gn	Cl, M		
9518	9 July	58°56'18"	136°47'55"	14.0				gy-gn	Cl, M, Sh, G, St		
9519	9 July	58°55'35"	136°45'22"	16.5				gy-gn	fne S, Sh, P		
9520	9 July	58°55'02"	136°45'08"	28.0				gy-gn	fne S, P, St		
9521	9 July	58°54'30"	136°44'55"	32.0				gy gn	fne S, P		
9522	9 July	58°35'15"	136°30'57"	40.0				gy gn	crs G, S		
9523	9 July	58°34'19"	136°31'12"	195-				gy gn	gly M, P		
9524	9 July	58°33'32"	136°31'26"	196-				gy gn	Cl, P		
9525	9 July	58°32'[illegible]	136°31'[illegible]	40				gy gn	Cl, P, S		
9526	9 July	[illegible]	[illegible]	207-				[illegible]	Cl, G		
9527	9 July	58°33'45"	136°33'[illegible]	183-				gy gn	Cl, S, P		
9528	9 July	58°34'30"	136°34'45"	177-				gy gn	gly Cl		
9529	9 July	58°34'58"	136°32'41"	209-				gy gn	Cl, S, G		
9530	9 July	58°35'28"	136°35'05"	191-				gy-gn	Cl, S		
		~~58°34'44"~~	~~136°34'44"~~					g			
		58°32'44"	136°32'15"	[illegible]				[illegible]	Cl, cs G, C		
9532	12 July	58°56'54"	136°54'10"	184-				gy-gn	Cl		

Use more than one line per sample if necessary.

USCOMM-DC 37019-P66

FORM C&GS-733M (6-66)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

VESSEL	PROJ. NO.	YEAR	CHECKED BY	DATE CHECKED
McArthur	OPR-460	72		

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE	SAMPLE POSITION LONGITUDE	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
9533	12 JUL 72	58°55'52"	136°52'57"	152				gy gn	Cl, G		
9534	JUL 23	58°57'35"	136°53'00"	71.8				gy gn	Cl, S, St	H-9316, 1972	
9535	JUL 23	58°57'34"	136°54'53"	190				gy gn	Cl, M		
9536	JUL 23	58°58'38"	136°53'53"	94				gy gn	St, Cl, S		
9537	JUL 23	58°58'34"	136°55'51"	188				gy gn	Cl, S, St gty		
9538	JUL 23	58°58'47"	136°57'40"	56				gy gn	M, G, gty		
9539	JUL 23	58°59'31"	136°55'08"	55				gy gn	Cl, P		
9540	JUL 23	58°59'01"	136°56'51"	183				gy gn	Cl, S, P		
9541	JUL 23	58°57'34"	136°58'52"	100				gy gn	Cl, S, gty, St		
9542	JUL 23	59°00'30"	136°57'56"	60				gy gn	Cl, S, gty, P		
9543	JUL 23	59°00'31"	136°59'23"	178				gy, gn	Cl, M		
9544	JUL 23	59°01'27"	136°58'11"	90				gy, gn	Cl, M, S, St		
9546	JUL 23	59°01'33"	137°00'23"	170				gy gn	S		
9547	JUL 23	59°02'37"	137°02'06"	90				gy, gn	Cl, P, $M		
9548	JUL 23	59°02'32"	137°01'10"	142				gy, gn	$M		
9549	JUL 23	59°02'28"	137°02'55"	133				dk br	S	H-9316 1972	
9550	JUL 23	59°03'17"	137°03'25"	123				gy, gn	S, M, P, Cl		

Use more than one line per sample if necessary.

USCOMM-DC 37019-P66

FORM C&GS-733M (6-66)

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VESSEL	PROJ. NO.	YEAR	CHECKED BY	DATE CHECKED
McArthur	OPR-460	1972		

SERIAL NO.	DATE	SAMPLE POSITION LATITUDE (N)	SAMPLE POSITION LONGITUDE (W)	DEPTH (Fathoms)	WEIGHT OF SAMPLER	APPROX. PENETRATION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, cohesiveness, dented cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)	OBS. INIT.
9550	Jul 23	59°03'30"	137°01'54"	85				gygn	S, M	H-9316 (1972	
9551	3 August	58°54'10"	137°52'33"	157				gygn	vfS, M, P		
9552	3 August	58°54'25"	137°58'57"	172				gygn	gty M	some vegetable (?) or animal matter	
9553	3 August	58°54'27"	137°00'50"	118-				gygn	gty M, G		
9554	" "	58°53'31"	137°01'42"	143-				vard	P		
9555	" "	58°52'48"	137°03'16"	193-				gygn	S		
9556	" "	58°57'58"	137°04'19"	194-				gygn	M		
9557	" "	58°51'20"	137°05'30"	183-				brbk	S		
9558	" "	58°50'41"	137°06'35"	135-				—	Rky	no sample Rky bottom	
9559	" "	58°54'04"	137°02'58"	170-				bk,wh	G		
9560	" "	58°54'56"	137°01'50"	95-				bk,wh	G		
9561	" "	58°55'07"	136°59'19"	147-				gygn	M		
9562	" "	58°55'03"	136°57'21"	129-				gygn	M, G		

Use more than one line per sample if necessary.

USCOMM-DC 37019-P66

Approval Sheet For

H-9315 MA-20-1-72

Field work on this survey was accomplished under my general supervision. Frequent inspections of the field data and boatsheet were made by me as the survey progressed. The sounding records have been inspected and are approved. This survey is complete and adequate and is hereby approved.

George M. Poor

George M. Poor
CDR, NOAA
Commanding Officer
NOAA Ship McARTHUR CSS -30

APPROVAL SHEET

The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report.)

Examined and approved,

James Green
Supervisory,
Cartographic Technician

Approved and forwarded,

Walter F. Forster, LCDR, NOAA
Chief, Processing Division
Pacific Marine Center

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

2/27/73

Processing Division: PACIFIC Marine Center

Hourly heights are approved for FORM 962

Tide Station Used (NOAA form 77-12): RUSSELL ISLAND

Period: JUNE 26 — AUG 22 1972

HYDROGRAPHIC SHEET: H 9315, H 9316

OPR: 460

Locality: GLACIER BAY, ALASKA

Plane of reference (mean lower low water): 2.8 ft.

Height of Mean High Water above Plane of Reference is 15.5ft.

Remarks: HOURLY HEIGHTS HAVE BEEN REVISED IN RED
AND VERIFIED AS FOLLOWS:

DATE
JULY 6, 8 - 12
AUG. 9, 21 -22

Corrected
6/28/73 Rm

~~FIELD PARTY RECOMMENDATION FOR ZONING DATED 11/21/72 APPROVED.~~ } Applies to H-9317 & H-9316

Robert A. Cummings
Chief, Tides Branch

WT

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

Date: November 6, 1973

Reply to Attn of: C3311-91-GTM

Subject: Russell Island Tide Gage, Glacier Bay, Alaska

To: Chief, Processing Division, PMC

In response to your memo of October 24, 1973, we have no additional information in this office on the location of the tide gages than what you included with your memo. However, the location on the charts for the tide gage at Russell Island is in approximately the location requested in the Project Instructions. Therefore, I must assume this is where the gage was located. Scrutiny of the coordinates listed indicates that the minutes on latitude and longitude have been reversed, possibly a copy error. Therefore, I believe it is safe to assume that the correct coordinates should be latitude $58^{\circ}56.5'$ N, and longitude $136^{\circ}48.3'$ W.

C. I. Thurlow

C.I. Thurlow
Chief, Tidal Datum Planes Section
Tides Branch
Oceanographic Division

NATION OCEANIC AND ATMOSPHERIC ADM. STRATION HYDRO 13

Pacific Marine Center

24 October 1973 CPM31

C331
Tides Branch

Walter F. Forster, Cdr., NOAA
Chief, Processing Division, PMC

Russell Island Tide Gage, Glacier Bay, Alaska (H-9315, 1972, OPR-460)

The location of Russell Island gage appears to be in error as listed in the Tide Note (a copy of note and chart location copy is included).

The tide note gives the location as 58° 48.7' North, 136° 56.5' West. The gage location on attached copy of Chart (C&GS 8202) appears to be at approximately 58° 56.5' North, 136° 48.3' West.

Request correct coordinates for tide gage to be received at the Processing Division, PMC, by 26 November 1973.

Attachments (2)

FILE COPY

CODE	SURNAME	DATE	CODE	SURNAME	DA

NOAA FORM 6

Tide Notes

(MA-20-1-72)

Tide correctors used for reduction of soundings plotted on boatsheet MA-20-1-72 (H-9315) were derived from data from a bubbler tide gage station at Composite Island, Glacier Bay (Lat. 58° 53.3'N, Long. 136° 34.4'W). The predicted tides were based on 122 high waters and 123 low waters, July 28 --- September 29, 1959.

See NOAA form 77-12: Russell Island gage reduction for H-9315 1972 Smooth Sheet

GEOGRAPHIC NAMES

Survey No.

H-9315, 1972

Name on Survey	On Chart No. 8202 A	On previous survey No. B	On U.S. quadrangle Maps C	From local information D	On local Maps E	P.O. Guide or Rand McNally F	Rand McNally G	U.S. Light List H	K	
CONFUSION POINT	✓		✓							1
GILMAN GLACIER	✓		✓							2
GLACIER BAY	✓		✓							3
HOONAH GLACIER	✓		✓							4
IBACH POINT			✓							5
~~JACKIE POINT~~ C&H										6
~~JOAN ROCKS~~ C&H										7
JOHN HOPKINS INLET	✓		✓							8
JOHN HOPKINS GLACIER	✓		✓							9
KASHOTO GLACIER			✓							10
LAMPLUGH GLACIER	✓		✓							11
~~POVIE POINT~~ C&H										12
REID GLACIER	✓		✓							13
REID INLET	✓		✓							14
RUSSELL ISLAND	✓		✓							15
TARR INLET	✓		✓							16
TOYATTE GLACIER			✓							17
~~WRIGHT SOUND~~ C&H										18
										19
										20
										21
										22
										23
										24
										25
										26

Approved by:
Chas. E. Harrington
Staff Geographer
16 July 1974

NOAA FORM 77-27
(9-72)
PREPARED BY
HYDROGRAPHIC
MANUAL 20-2,
6-94, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. H-9315

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & PNO	1	BOAT SHEETS	2
DESCRIPTIVE REPORT	1	OVERLAYS	41

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	[illegible]					
CAHIERS	2					
VOLUMES	~~15~~ ~~34~~ 25					
[illegible] Boxes	[illegible]		1			

T-SHEET PRINTS (List) Advanced Manuscripts [illegible], T-12734, [illegible], T-12741, [illegible] T-12743, [illegible], [illegible], [illegible], [illegible]

SPECIAL REPORTS (List) Reviewed Manuscripts T-12732, T-12733, T-12740, T-12741, T-12742, T-12743, T-12744 T-12745, T-12753, T-12754, T-12734, T-12755

Unreviewed Classl Manuscripts T-12756, T-12757

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED		3638	20	
POSITIONS REVISED		30	1	
DEPTH SOUNDINGS REVISED		150	2	
DEPTH SOUNDINGS ~~ERRONEOUSLY SPACED~~ placed in or out of excess			69	
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
Verification of Control		3	1	
Verification of Positions		130	3	
Verification of Soundings		140	30	
Smooth Sheet Compilation		131	/	
ALL OTHER WORK			103	
TOTALS		404	137+2=139 +2=141	

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY		
VERIFICATION BY James L Stringham	5 Feb. 1973	31 May 1974
REVIEW BY D. Baumgardner	Aug 14, 1974	20 Sept. 1974

Insp by GK Ingersoll - 14 hrs - 11/18/74 11/26/74

Reg. No. 9315

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey the following shall be completed:

CARDS CORRECTED

DATE_____ TIME REQ'D_____ INITIALS_____

REMARKS:

H-9315

Items for Future Presurvey Review

No prior hydrographic coverage exists within the limits of the present survey.

Position Index Lat.	Long.	Bottom Change Index	Use Index	Resurvey Cycle
585	1365	0	0	50 Years
585	1370	0	0	50 Years
585	1371	0	0	50 Years

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9315 FIELD NO. MA-20-1-72

Alaska, Glacier Bay, John Hopkins Inlet and Vicinity

SURVEYED: June 26 - August 21, 1972

PROJECT NO. OPR-460 SCALE: 1:20,000

SOUNDINGS: DE-723 Depth Recorder
Leadline, Divers

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party ..... G. M. Poor
Surveyed by ..... O. F. Steffins
..... R. J. DeVivo
..... R. K. Norris
..... C. B. Lawrence
..... S. D. Witaker
..... S. R. Birkey
..... J. M. Altenhofen
..... Birkist
..... Jeffries
Automated Plot by ..... Gerber Digital Plotter (PMC)
Verified and inked by ..... J. L. Stringham
Reviewed by ..... S. Baumgardner
Date: Sept. 20, 1974
Inspected by ..... G. K. Myers

1. Description of the Area

This survey covers John Hopkins Inlet and the northwest portion of Glacier Bay bounded on the east by long. 136°39.5' and on the north by lat. 58°57'.

John Hopkins Inlet and Glacier Bay are deep glaciated fjords with maximum depths of 206 and 207 fathoms respectively. Shoals and reefs are found off the northwest and southeast ends of Russell Island in Glacier Bay. Many rocks uncover at MLLW close inshore.

Predominant bottom characteristics are clay and mud.

2. Shoreline and Control

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

The shoreline originates with reviewed photogrammetric manuscripts T-12732, T-12733, T-12740, T-12741, T-12742, T-12743, T-12744, T-12745, T-12753, T-12754, T-12755 of 1970-72, and T-12734 of 1971-72.

The shoreline also originates with unreviewed Class I manuscripts T-12756 and T-12757 of 1964-72.

Minor shoreline revisions in red are by the hydrographer.

3. Hydrography

Depths at crossings are in good agreement. The usual depth curves were adequately delineated except along steep slopes in close proximity to the shore. 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, various sounding printouts and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual supplemented by the Instruction Manual-Automated Hydrographic Surveys except that recorded notes pertaining to inshore detail were very sparse.

5. Junctions

Adequate junctions were effected with H-9316 (1972) on the north and H-9138 (1970) on the east.

6. Comparison with Prior Surveys

No prior surveys fall within the area of the present survey.

7. Comparison with Chart 8202 (latest print date 11-3-73)

A. Hydrography

The charted hydrography originates with the boat sheet and verified smooth sheet of the present survey. Charted depths are generally within 1 fathom of depths on the present survey.

The following differences are specifically noted:

1. The ½ fm. charted in lat. 58°54.75', long. 136°44.5', from the present survey boat sheet is shown erroneously thereon and should be 6 fms.

2. The 4½ fms. charted in lat. 58°55.6', long. 136°45.3', from the present survey boat sheet is shown as 5.4 fm. on the smooth sheet.

3. The 81 fms. charted in error in lat. 58°53.2', long. 136°46.6' is shown as 71 fms. on the present survey smooth sheet.

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

B. Aids to Navigation

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

8. Compliance with Project Instructions

This survey adequately complies with the Project Instructions.

9. Additional Field Work

This is a very good basic survey and no additional hydrography is recommended.

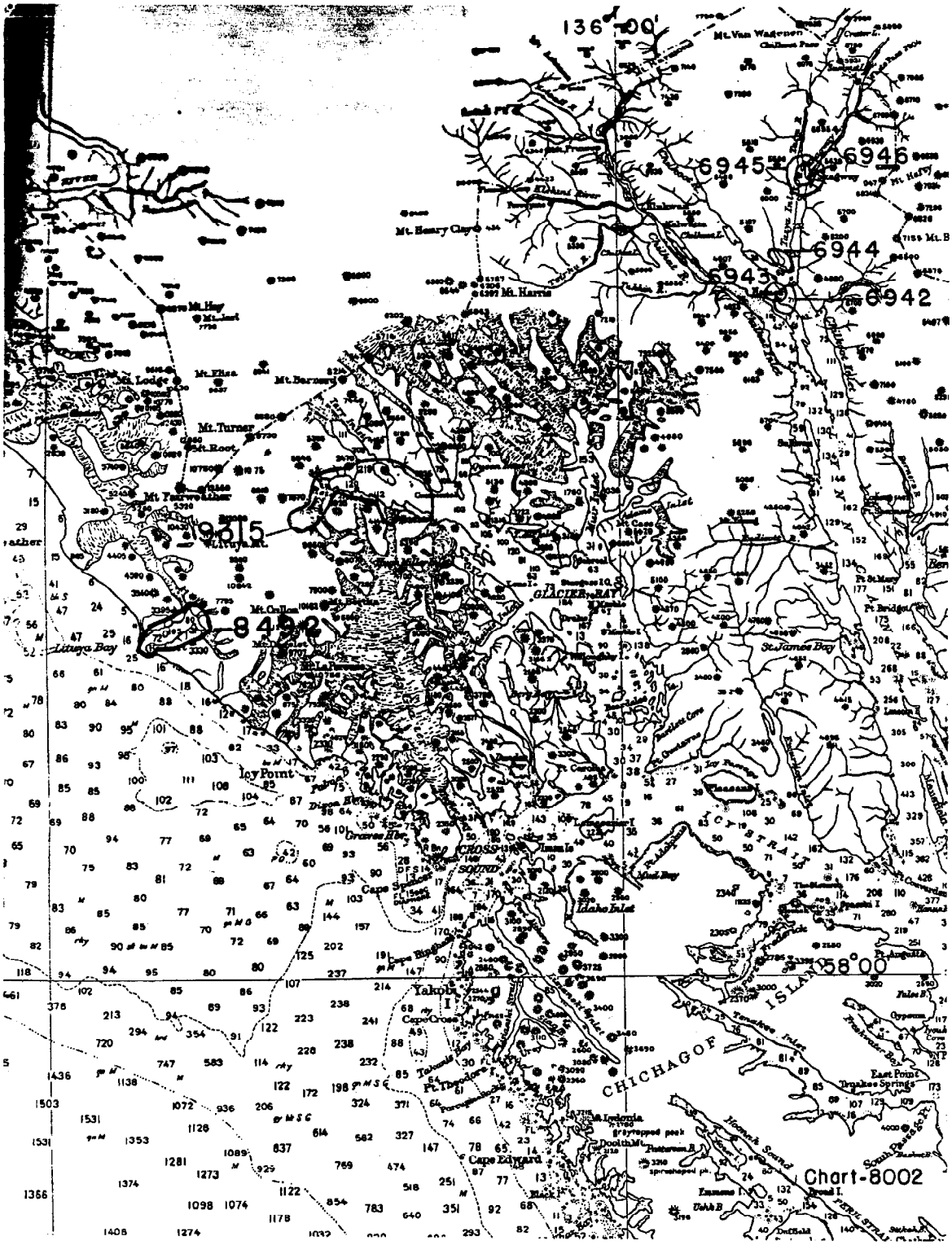
Inspected and Approved:

R. H. Hoult

Chief
Marine Chart Division

Robert C. Munson

Associate Director
Office of Marine Surveys and Maps


136°00'
6945
6946
6944
6943
6942
9315
8492
Icy Point
Cape Spencer
Takou I.
Cape Cross
Cape Edward
CHICHAGOF ISLAND
58°00
Chart-8002

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9315

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
8202	7/9/74	S. Marks	Full Part Before After Verification Review Inspection Signed Via Drawing No. Examined for Notice to Mariners. None recommended.
8202	7/10/75	O.S. Forbes	Full ~~Part Before~~ After Verification Review Inspection Signed Via Drawing No. Revised hydro throughout area
17318 & 17319-SC	2/14/79	James Graham	(Full) ~~Part Before~~ (After) ~~Verification Review~~ (Inspection) Signed Via Drawing No. #1 & 1M Fully appl'd hydro after final inspection to new chart.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63