9385

Diag. Cht. No. 8551-3.

FORM C&GS-504

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic Corridor Survey

Field No. DA-20-1-73 *Office No.* H-9385

LOCALITY

State Alaska

General locality Prince William Sound

Locality Hinchinbrook Entrance

1973

CHIEF OF PARTY

M. H. Fleming

LIBRARY & ARCHIVES

DATE 1-22-74

USCOMM-DC 37022-P66

9385

FORM C&GS-537 (5-66)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO. (1)

H-9385

FIELD NO.

DA-20-1-73

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 PRINCE WILLIAM SOUND

Locality ~~CAPE~~ HINCHINBROOK ENTRANCE

Scale 1:20,000 Date of survey June 1973 (2 June-29 June 73)

Instructions dated 14 February Project No. OPR-999

Vessel NOAA Ship Davidson CSS-31

Chief of party CDR. Michael H. Fleming

Surveyed by LCDR H.B. Milburn, LT R.L. Crozier, LT R.P. Hewitt, ENS J.J. Kapler, Ens. K.X. Gores, ENS West, ENS J.L. Oswald

Soundings taken by echo sounder, ~~hand lead, pole~~ Ross Fineline Model 5000 Serial # 1048 Raytheon DE-723 Serial # 1286

Graphic record scaled by Ship's Personnel

Graphic record checked by Ship's Commissioned Officers

Positions Verified by ~~Protracted by~~ verified James L. Stringham Automated plot by Gerber Digital PMC-~~EDP Branch~~ Plotter

Soundings ~~penciled~~ by James L. Stringham

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

REMARKS:

Area 6

Applied to stds 1-28-74 mb

Chart
8551
8520
8500

ADP #

USCOMM-DC 37009-P66

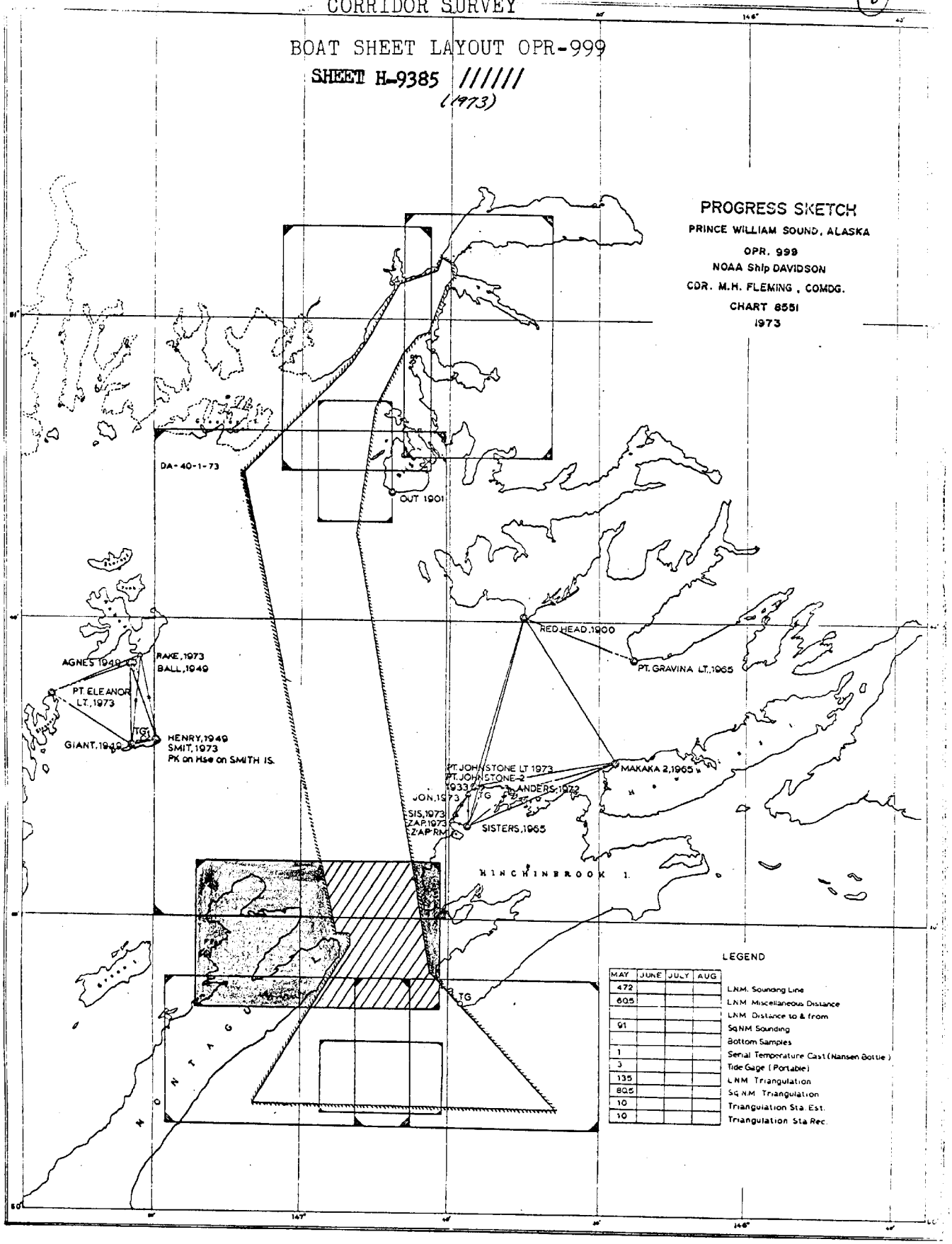
(2)

CORRIDOR SURVEY

BOAT SHEET LAYOUT OPR-999

SHEET H-9385 //////

(1973)



DESCRIPTIVE REPORT

DA-20-1-73

H-9385 (1973)

A. PROJECT

This survey was conducted is accordance with project instructions OPR-999-DA-73, Corridor Survey, Prince William Sound, Alaska, dated 14 February 1973.

B. AREA SURVEYED

The survey area is the southcentral entrance to Prince William Sound. It encompasses the area west of Cape Hinchinbrook and Bear Cape, to the northeasterly most shores of Montague Island, bounded by latitudes 60° 22.5' and 60° 14.3'.

This survey was accomplished during June 1973.

C. SOUNDING VESSELS

The following vessels were used to obtain data on this survey:

Vessel	Position Color
Launch DA-2	Blue
NOAA Ship DAVIDSON	Brown

(See appendix for "List of Positions")

DAVIDSON'S draft was 1.9 fm. a -.10 fm tra correction was applied to the ship hydrography

D. SOUNDING EQUIPMENT

Launch DA-2 used a Ross Fineline Model 5000 fathometer, serial number 1048. NOAA Ship DAVIDSON used a Raytheon DE-723 fathometer, number 1286. The velocity of sound was determined from water temperature and conductivity measurements from a Martek metering system and from Nansen casts. The DAVIDSON'S fathometer was initialed ~~at~~ 2.0 fathoms; the ship's draft was taken regularly. Phase errors were eliminated by use of a digital phase checker. The digitized depths from the Ross Fineline Model 5000 were assumed to have no phase or, initial error. TRA corrections for Launch DA-2 were determined from daily bar checks ~~but not~~ and applied to soundings. (See"Corrections to Echo Sounder, OPR-999-1973"). Report will be expedited ETA August 23, 1973.

All Field soundings are in fathoms referenced to MLLW using predicted tides for Port Etches and 135° W time meridian for the survey. (See "Tide Note".)

E. SMOOTH SHEET

The smooth sheet ~~will be~~ was constructed and plotted by the Processing Division, Pacific Marine Center, Seattle, Washington.

F. CONTROL

Position Control was Raydist. Raydist arcs for red and green stations were hand plotted by ship's personnel. The daily calibration of the Raydist was done by visual three point sextant fixes. Computed and observed lane count values usually differed only within a few hundredths of a lane. (See "Electronic Control Report, OPR-999-1973", and "Abstract of Raydist Calibrations".)

The Raydist stations were located by third order or better methods or placed over existing triangulation. Two pairs of Raydist stations were used in this survey.

F. CONTROL (Cont.)

STATION	SIGNAL NO.	COLOR CODE	LATITUDE	LONGITUDE	VESSEL	POSITIONS	JULIAN DATE
Rake, 1973	018	(Green)	60°37'33.40"	147°21'54.76"	DAVIDSON DAVIDSON	0001-869 9601-9610	153-157
Out RM1, 1901r1972	019	(Red)	60°48'22.86"	146°47'46.85"	DA-2	5001-5199	
Bofix, 1972	029	(Red) Violet Arcs on P.N.O.	59°57'41.04"	147°20'26.84"	DAVIDSON DAVIDSON	1001-1472 9611-9624	165-180
Spit-2, 1967	028	(Green) Brown Arcs on P.N.O.	59°27'56.51"	146°18'22.39"	DA-2	6001-6368	

(6

G. SHORELINE

Shoreline was transferred directly from incomplete manuscripts T-12662, T-12663, T-00634, and T-00636 to the boat sheet. In accordance with project instructions shoreline field edit and shore line verification were not undertaken. However, a wrecked, steel hulled barge was located on the southeastern shore of Montague Island (latitude 60°15.95', longitude 147°56.99'). see Review notes

H. CROSSLINES

The percentage of crosslines to sounding lines is 10.1%. There is good agreement.

I. JUNCTIONS

Junctions were made with contemporary surveys H-9382 (1973) (DA-40-1-73), H-9386 (DA-20-2-73), and H-9387 (DA-20-3-73). There is good agreement at the junctions. (1973) (1973)

J. COMPARISON WITH PRIOR SURVEY

The prior survey of this area is H-2612 H-2612 (1902) 1:40,000 scale - hydrographic survey completed in 1902~~-12~~. ~~The 1902-12~~ and the present survey agree in the basic hydrography. The present hydrography has a better delineation of shoals and indicates least depths in these areas which are somewhat less then those reported in 1902~~-12~~.

The pre-survey review listed several items which are answered herein:

#1 Stranded wreck charted at Lat 60°15.95', Longitude 146°57.00' is a rusty barge with super structure. See Review

#5	Reported	Found
A.	14 fathom @ 60°19.4~~0~~1', 146°57.80'	7.8 fathom @ 60°19.7~~5~~6', 146° 56.~~75~~81'

Development of this area revealed a shoal area (See 1:10,000 Development accompaning H-9385). (1973) Time did not allow a complete development of this shoal and it is believed that the least depth may not have been found.

Dashed Circle Items: See Review

B.	42 fathom @ 60°19.8~~6~~3', 146°55.~~25~~00'	~~23~~22 fathom @ 60°19.82', 146°~~56.40~~55.15'
C.	18 fathom @ 60°19.98', 146°56.30'	10.~~8~~5 fathom @ 60°~~19.90~~20.01', 146° 56.~~44~~39'
D.	47 fathom @ 60°20.39', 146°55.40'	37 fathom @ 60°20.32' 146°55.12'

K. COMPARISON WITH THE CHART

Comparison with the largest scale chart of the area USC&GS chart number 8520, ~~15~~th edition, January 20, 197~~2~~[3], 1:80,000 scale, shows good agreement with the exception noted (See Pre-Survey Review Items).

Discrepancies found with the chart are:

1) Shoaler sounding of 194 fathoms in vicinity of 60°19.35', 196°52.~~90~~[20]'. Versus a charted depth of 21~~5~~[7].
2) Shoaler sounding of 193 fathoms found in vicinity of 60°17.40', 146° 52.70'. Versus a charted depth of 21~~0~~[5].
3) Shoaler sounding of 19~~2~~[3] fathoms found in vicinity of 60°18.20', 146° 51.70'. Versus a charted depth of ~~217~~[208].

This survey has a good sounding density which adequately defines depth curves. Some of the areas were very steep and such areas were difficult to contour.

L. ADEQUACY OF SURVEY

This corridor survey is considered complete and adequate to supers[5]ede prior surveys within the limits of the corridor.

M. AIDS TO NAVIGATION

There are no floating or fixed aids to navigation on this sheet.

N. STATISTICS

Vessel	Number of Positions	Nautical Miles Sounding Line	Bottom Samples
DAVIDSON	1341	486.4	24
DA-2	567	135.0	0

N. STATISTICS (Cont). DAILY STATISTICS

Day	Raydist Station	Vessel	Vol.	Positions	Sounding Lines N.M.		Number of Bottom Sample (Positions)
153	Out RM-1, 1901r:1972 Rake, 1973	DAVIDSON	L-3	1-259 (no pos 103-107& 137)	96.8		0
153	"	DAVIDSON	L-4	260-406	56.7		0
154	"	DAVIDSON	L-4	407-592 (no pos 456)	56.2		0
155	"	DAVIDSON	L-5	593-612	7.1	(9601-02)	2
155	"	DA-2	L-7	5001-5064	15.4		0
156	"	DAVIDSON	L-5	613-821	84.8		0
157	"	DAVIDSON	L-5	822-869	13.1	(9603-10)	8
157	"	DA-2	L-7	5065-5199 (no pos 5194-6)	29.0		0
				CHANGE RAYDIST STATIONS			
165	Bofix, 1972 Spit-2 1967	DAVIDSON	L-6	1000-1232	93.6		0
166	"	DAVIDSON	L-6	1233-1324	26.7		0
166	"	DA-2	L-8	6001-6119	30.2		0
167	"	DAVIDSON	L-6	1326-1472	51.2		0
167	"	DA-2	L-8	6120-6224	20.4		0
168	"	DA-2	L-8	6225-6368	40.0		0
180	"	DAVIDSON	0	0	0	(9611-9624)	14

L-1 Position Tape L-2 Bottom Sample Tape

L-9 DAVIDSON TRA/TC/T1 L-11 Corrector Tape

L-10 DA-2 TRA/TC/T1

N. STATISTICS (Cont).

This survey covers approximately 56.6 square miles (44.3 square miles DAVIDSON, 12.3 square miles Launch DA-2), or a total of 621.4 N.M. sounding lines (486.4 N.M. DAVIDSON, 135.0 N.M. DA-2). There are 11 volumes (Tapes) with this survey.

O. LOGGING

Logging was carried out while the survey was in progress. Climatronics Electronic logger coupled to a Model 33 Teletype was used aboard the DAVIDSON. Launch DA-2 used Hydrographic Logger, serial number 01, by Aircraft Standards Inc., coupled to a Model 33 Teletype. The Model 33 Teletype utilizes ASCII Code. Tapes L-3, L-4, L-5, & L-7 are not recorded in parity. EDAT has been advised and assures this will cause no problems.

P. MISCELLANEOUS

Geological observations of the Southwestern shores of Cape Hinchinbrook and Bear Cape, and the Northeastern shores of Montague Island indicate Northeasterly striking sequences of hard, ridge forming rocks. Future surveys of these shores should suspect Northeasterly trending shoals and ridges extending from shore. Accordingly, an adequate number of survey lines should be run Northwesterly or parallel to the shore, across the grain of the ridges to fully delineate all shoals.

Q. RECOMMENDATIONS

It is recommended that this survey suppersede prior surveys within the limits of the corridor. It is also recommended that the shoal north of Zaikof Point be further developed to obtain least depth.

R. REFERENCES

" Corrections to Echo Sounder - OPR-999-1973 "

" Report on Electronic Control - OPR-999-1973 "

APPENDIX

" List of Signals"

" Abstract of Raydist Calibration"

" Tide Note"

" TRA/TC/T1 Printout"

" Form 1'S"

" Form 3'S"

LIST OF SIGNALS

NAME	SIGNAL NUMBER	LATITUDE	LONGITUDE
Seal Rocks, 1902-1972	001	60°09'49.10"	146°50'10.59"
Pin, 1902-1972 139	010	60°14'11.12"	146°36'27.28"
Fur, 1972 139	012	60°15'~~18.89~~ 19.87"	146°41'03.36" 9"
Hinch, 1972 139	013	60°14'17.47"	146°38'42.83"
Rake, 1973	018	60°37'33.40"	147°21'54.76"
Out RM-1, 1901r.1972	019	60°48'22.86"	146°47'46.85"
Red Tree, 1973 (Temporary)	023	60°29'02.43"	146°36'11.76"
West Day Marker on Pt. Johnstone Light, 1973	024	60°28'59.71"	146°36'43.36"
Zap, 1973	027	60°27'08.20"	146°39'12.40"
Spit-2, 1967	028	59°27'56.51"	146°18'22.39"
Bofix, 1972	029	59°57'41.04"	147°20'26.84"
Schooner Rocks, 1902 (unajusted) 139	030	60°18'24.44"	146°54'21.51"

ABSTRACT OF RAYDIST CALIBRATIONS

DAY	VESSEL	TIME	CORRECTOR RED	CORRECTOR GREEN	POSITIONS	RAYDIST STATION
153	DAVIDSON	0420	-.02	-.07	1-259	Out RM-1, 1901, 1972, RAKE, 1973
153	DAVIDSON	1345	-.07	+.03	"	"
154	DAVIDSON	0845	-.11	+.07	260-592	"
154	DAVIDSON	2050	-.17	+.12	"	"
155	DAVIDSON	0330	-.10	-.03	593-612	"
155	DA-2	0850	+.07	+.02	5001-5064	"
155	DA-2	1605	Lane Check Against Ship Good		"	"
156	DAVIDSON	0400	-.02	-.06	613-821	"
156	DAVIDSON	2050	+.10	+.05	"	"
157	DAVIDSON	0650	-.07	-.02	822-869	"
157	DAVIDSON	1720	-.04	+.10	"	"
157	DA-2	0925	+.07	+.02	5065-5199	"
157	DA-2	1610	Lane Check Against Ship Good		"	"

CHANGE RAYDIST STATIONS

165	DAVIDSON	0840	-.01	-.02	1000-1232	Bofix 1972, Spit-2 1967
166	DAVIDSON	1140	-.06	+.01	1233-1324	"
166	DAVIDSON	1600	-.11	+.03	"	"

ABSTRACT OF RAYDIST CALIBRATIONS (Cont).

DAY	VESSEL	TIME	CORRECTOR RED	CORRECTOR GREEN	POSITIONS	RAYDIST STATION
166	DA-2	1100	+.07	+.03	6001-6119	Bofix 1972, Spit-2 1967
166	DA-2	1640	Lane Check Against Ship Good		"	"
167	DAVIDSON	0420	+.05	-.09	1326-1472	"
167	DAVIDSON	0910	-.09	-.09	"	"
167	DAVIDSON	1530	+.28	+.07	"	"
167	DAVIDSON	2000	+.27	+.06	"	"
167	DA-2	0910	-.07	-.08	6120-6224	"
167	DA-2	1615	Lane Check Against Ship Good		"	"
168	DAVIDSON	0350	-.01	-.04		"
168	DAVIDSON	1800	-.04	+.09		"
168	DA-2	0920	+.01	-.04	6225-6368	"
168	DA-2	1610	Lane Check Against Ship Good		"	"
180	DAVIDSON	1010	-.07	-.03		
180	DAVIDSON	1550	-.28	-.12		

(14)

APPROVAL SHEET

HYDROGRAPHIC CORRIDOR SURVEY

DA-20-1-73

H-9385

OPR-999

CAPE HINCHINBROOK ENTRANCE

PRINCE WILLIAM SOUND, ALASKA

The field work on this survey was accomplished under my supervision. Frequent inspections of the boatsheet and other records were made.

Michael H. Fleming
CDR. NOAA
Commanding Officer
NOAA Ship DAVIDSON

PARAMETERS FOR DIGITAL COMPUTING
POLYCONIC PROJECTION

(15)

(1) Project No. OPR-499 (4) Requested by EOAT

(2) H No. H-9385 (5) Ship or Office

(3) Field No. 04-20-1-73 EOAT 31013 (6) Date Required

(7) Visual ☐ Pt.(0) or Fathoms (1) [1] (8) Electronic ☒ (fill out form #3)

(10) XKN (SP 5) Distance from CMER to East Edge (NYX = 1) or West Edge (NYX = 0). (Origin) 14,783.04 Meters

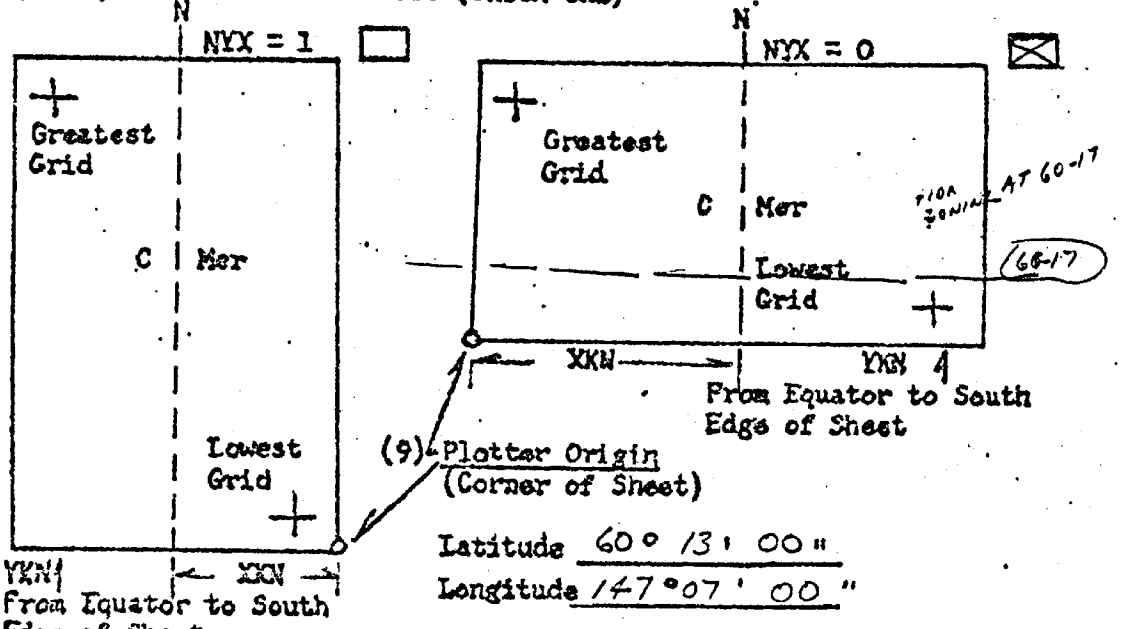
(11) YKN (SP 241) Distance from Equator to South Edge of Sheet. (Origin) 6,678,006.389 Meters

(12) Central Meridian 146 o 51 ' 00"

(13) Survey Scale 1: 20,000

(14) Size of Sheet (Check one) 36x60 ☐ 42x60 ☒

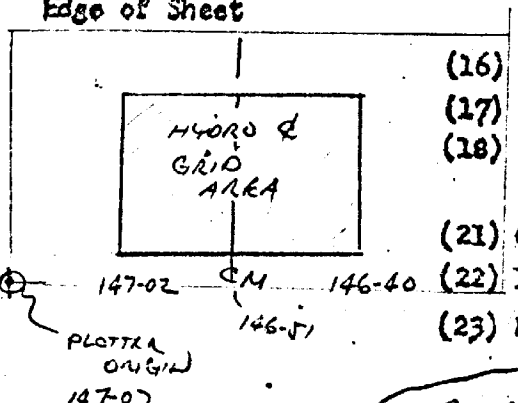
(15) NYX, Orientation of sheet (Check one)



(9) Plotter Origin (Corner of Sheet)

Latitude 60 o 13 ' 00 "

Longitude 147 o 07 ' 00 "



Grid Limits

(16)	Greatest Latitude	60 o 23' 00"	(Projection Line Interval Page 4 Hydro Manual)	
(17)	Lowest Latitude	60 o 14 ' 00 "		
(18)	Difference	9 ' 00"	(19)	01 ' 00 "
			(20)	09 YSN
(21)	Greatest Longitude	147 o 02 '00"		
(22)	Lowest Longitude	146 o 40 '00"	(24)	01 ' 00 "
(23)	Difference	22' 00"	(25)	22 XSN

COOK & COMPUTE SIGNALS FROM DESCRIPTION REPORT - COOK & COMPUTE ARC INTERSECTIONS - COMPUTE NEW GRID - ONCARD CLO 9385 CARDS

HYDRO II AND III PARAMETER CARDS

H _____
Field No. _____
Date _____

PARAMETER CARD II

			1	2	3	4	5	6	7	8	9	10
Semi major axis of the earth	6,378,206.4	RDA	6	3	7	8	2	0	6	4	0	7
			11	12	13	14	15	16	17	18	19	20
X Constant- Distance from central meridian to origin of plotter SP 5	meters	XKN	1	4	7	8	3	0	4	0	0	√
			21	22	23	24	25	26	27	28	29	30
Y Constant - Distance from equator to origin of plotter SP 24	meters	YKN	6	6	7	8	0	0	6	4	0	7
			31	32	33	34	35	36	37	38	39	40
Central Meridian of Projection	146 √1 00	CMR	√	2	8	6	6	0	0	0	0	6
			41	42	43	44	45	46	47	48	49	50
Plotter Scale/Survey Scale	1:20,000	SCA	√	2	4	9	3	4	3	8	0	0
												51
North/south axis of sheet - to correspond to (Y axis - 0) (X axis - 1) of plotter		NYX										0
												52
Feet/Fathom indicator	0 - feet 1 - fathom	FOF										1
								53	54	55	56	57
H Identification No.		JN						0	9	3	8	√
											58	59
		YR									7	3

FOF - 1

PARAMETER CARD III

			1	2	3	4	5	6	7	8	9	10
Lowest Lat. Intersection	60 14 00	YST	2	1	6	8	4	0	0	0	0	6
			11	12	13	14	15	16	17	18	19	20
Lowest Long. Intersection	146 40 00	XST	√	2	8	0	0	0	0	0	0	6
			21	22	23	24	25	26	27	28	29	30
Difference between Grid	01	DXI	6	0	0	0	0	0	0	0	0	2
											21	22
Interval (Long)		XSN				"					2	2
											23	24
Interval (Lat)		YSN									0	9

Computed MNM
Punched _____
Checkdd K
Date 7/20/73

16

FORM #3

236-50 (17) 14.16

COMPUTER PARAMETERS FOR ELECTRONICALLY CONTROLLED SURVEYS

(RANGE - RANGE)

(1) Project No. OPR-499 (2) N. No. 9385 (3) Field No. 04-20-1-73

(4) Type of Control: ___ SHORAN, ___ RAYDIST, X HI-FIX, ___ RADAR
Frequency (for conversion of RAYDIST or HI-FIX lanes to meters) 3300.4

(5) RANGE ONE (R1) OUT RM 1, 1901 R 1972 ___
Station Name _____
Latitude 60° 48 ' 22."86
Longitude 146° 47 ' 46."85

(6) RANGE TWO (R2) RAKE, 1973
Station Name _____
Latitude 60° 37 ' 33."40
Longitude 147° 21 ' 54."76

(7) Azimuth from R1 to R2 57° 20 ' 00."37

(8) Baseline Length in Meters 36,993.337 M.

(9) Location of survey with respect to Electronic Baseline: CHECK ONE
(To determine: imagine an observer standing at R1 and looking directly at R2 --- if the survey area is to the observer's LEFT then A is negative; if the survey area is to the observer's RIGHT then A is positive.)

X -A (minus) ___ +A (plus) 57.333436

(10) if SHORAN corrections are applied by the equation, K(X) + C = D, where X is SHORAN distance and D is true distance, enter the Constant Coefficients of the equations here:

K(R1) _____, C(R1) _____, K(R2) _____, C(R2) _____.

(11) Number of Velocity Tables to be used:

___None, ___ One, ___ More than one.

(12) _____ This form is submitted only as an aid in preparing a boat sheet projection.

_____ This form applies to all data on this survey.

XX This form applies to part of the data on this survey -

Time and Date limitations: From 153 To 157

Position Number Limitations: From 0001 S001 To 0869 S199

This is Form #3 Sheet # 1 of 2 Sheets for this survey.

(13) Other Remarks:

FORM #3

(18)

COMPUTER PARAMETERS FOR ELECTRONICALLY CONTROLLED SURVEYS

(RANGE - RANGE)

(1) Project No. OPR-999 (2) N. No. 9385 (3) Field No. 04-20-1-73

(4) Type of Control: ___ SHORAN, ___ RAYDIST, X HI-FIX, ___ RADAR
Frequency (for conversion of RAYDIST or HI-FIX lanes to meters) 9900.4

(5) RANGE ONE (R1)
Station Name 80 FIX, 1972
Latitude 59° 57' 41.04"
Longitude 147° 20' 26.84"

(6) RANGE TWO (R2)
Station Name SPIT 2, 1967
Latitude 59° 27' 56.51"
Longitude 146° 18' 22.39"

(7) Azimuth from R1 to R2 313° 02' 09."627

(8) Baseline Length in Meters 80,251.615 M.

(9) Location of survey with respect to Electronic Baseline: CHECK ONE
(To determine: imagine an observer standing at R1 and looking directly at R2 --- if the survey area is to the observer's LEFT then A is negative; if the survey area is to the observer's RIGHT then A is positive.)

X -A (minus) ___ +A (plus)

(10) if SHORAN corrections are applied by the equation, K(X) + C = D, where X is SHORAN distance and D is true distance, enter the Constant Coefficients of the equations here:

K(R1) _____, C(R1) _____, K(R2) _____, C(R2) _____.

(11) Number of Velocity Tables to be used:

___None, ___ One, ___ More than one.

(12) _____ This form is submitted only as an aid in preparing a boat sheet projection.

_____ This form applies to all data on this survey.

X This form applies to part of the data on this survey -

Time and Date limitations: From 165 To 180

Position Number Limitations: From 1000 6001 To 1472 6368

This is Form #3 Sheet # 2 of 2 Sheets for this survey.

(13) Other Remarks:

H [illegible]
Field No.
Date

HYDRO I PARAMETER CARDS

Computes G.P.'s from Electronic Controlled Baseline

Parameter Card I		Deg. Min. Seconds	Prog. Codes	1	2	3	4	5	6	7	8	9	10
Master R1 Hydro Name OUT RM 1	Lat.	60 48 22.86	RPD	2	1	8	9	0	2	8	6	0	6
	Long.	146 47 46.8✓	RBD	11	12	13	14	15	16	17	18	19	20
				5	2	8	4	6	6	8	✓	0	6
Slave R2 Hydro Name RAKK	Lat.	60 37 33.40		Not Used									
	Long.	147 21 47.6		Not Used									
Azimuth R1 to R2		07 20 00.37	RAD	21	22	23	24	25	26	27	28	29	30
				2	0	6	4	0	0	3	7	0	6
				Not Used									
Baseline Distance in Meters			SMP	31	32	33	34	35	36	37	38	39	40
				3	6	9	9	3	3	3	7	0	✓
Velocity Code 0 - No Vel. 1 - 1 Vel. Table 2 - 2 Vel.-(E - W) 3 - 2 Vel.-(N - S)			IVL										41 0
Conversion factor for electronic distance to meters. Stat. Mi = 1300.4 Lanes = or			CNV	42 4	43 ✓	44 3	45 9	46 9	47 0	48 4	49 1	50 0	51 2
H-Identification Number			JN						52 0	53 9	54 3	55 8	56 ✓
Location of survey with respect to electronic baseline		- <A = 1 + <A = 0	AAA										57 1
Velocity Boundary IVL = 2 IVL = 3		Long = 0 " " Lat. =	VLE		58 0	59 0	60 0	61 0	62 0	63 0	64 0	65 0	66 0
			YR								67 0	68 7	69 3
If Sheran calibration correction is applied by equation (use Sheran card) punch 1 in column 80				70 0	71 0	72 0	73 0	74 0	75 0	76 0	77 0	78 0	79 0	80 0

Shoran Card Format (when calibration correction is applied by a line K x + C)
(flag 5, 11, 17, or 23 if resp. constant is negative)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
		R1K						R1C						R2K						R2C		

Computed MNM Punched Checked Date

H # 9387
Field No. OA-2-1-73
Date 7/20/73

HYDRO I PARAMETER CARDS

Computes G.P.'s from Electronic Controlled Baseline

Parameter Card I		Deg.	Min.	Seconds		Prog. Code
Master R1 Hydro Name BOFIX	Lat.	√	9	√7 4	1 0 4	RPD
	Long.	1	4	7 2 0	2 6.8 4	RBD
Slave R2 Hydro Name	Lat.	√	9	2 7 √	6. √ 1	
	Long.	1	4	6 1 8	2 2.3 9	
Azimuth R1 to R2		3	1	3 0 2	0 9.6 3	RAD
Baseline Distance in Meters						SMP
Velocity Code 0 - No Vel. 1 - 1 Vel. Table 3				2 - 2 Vel.-(E - W) 3 - 2 Vel.-(N - S)		IVL
Conversion factor for electronic distance to meters. 3300.4				Stat. Mi = Lanes =	or	CNV
H-Identification Number						JH
Location of survey with respect to electronic baseline				- <A = 1 + <A = 0		AAA
Velocity Boundary IVL = 2 IVL = 3				Long = 0 " " Lat =		VLE
						YR
If Sheran calibration correction is applied by equation (use Sheran card) punch 1 in column 80						

	1	2	3	4	5	6	7	8	9	10
RPD	3	1	√	8	6	1	0	4	0	6
RBD	√	3	0	4	2	6	8	4	0	6
	Not Used									
	Not Used									
RAD	1	1	2	6	9	2	9	6	0	7
	Not Used									
SMP	8	0	2	√	1	6	1	√	0	√
IVL										0
CNV	4	√	3	9	9	0	4	1	0	2
JH						0	9	3	8	√
AAA										1
VLE	0	0	0	0	0	0	0	0	0	0
YR								0	7	3
	0	0	0	0	0	0	0	0	0	0

Sheran Card Format (when calibration correction is applied by a line K x + C)
(flag 5, 11, 17, or 23 if resp. constant is negative)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
R1K					R1C						R2K						R2C						

Computed MAM Punched _____ Checked _____ Date _____

28

SIGNAL PLOTTER CARDS

H-NO.			LATITUDE	LONGITUDE	X	Y	X
09385	010	73	60141112	146362728	14811	01169	010
09385	012	73	60151889	146410336	12577	02263	012
09385	013	73	60141747	146384283	13715	01268	013
09385	030	73	60182444	146542151	06136	05272	030

000000

ARC INTERSECTION CARDS

SVREG-POSN HENO.-	TIME NO.	DAYYR	LATITUDE	LONGITUDE	R1	R2	R1C	R2C	Y	X	POSN
						out		Rake			
N	09385001	00000000	00007360	22594614	65526901	05000080	000		097410561410		2
N	09385001	00000000	00007360	22483614	65214131	05000085	000		095600716410		2
N	09385001	00000000	00007360	22431414	64858301	05000090	000		094750874010		2
N	09385001	00000000	00007360	22440314	64539711	05000095	000		094911033710		2
N	09385001	00000000	00007360	21577614	65759091	10000080	000		087400438810		2
N	09385001	00000000	00007360	21423114	65440641	10000085	000		084870598510		2
N	09385001	00000000	00007360	21327814	65119281	10000090	000		083320760510		2
N	09385001	00000000	00007360	21294014	64755211	10000095	000		082770924810		2
N	09385001	00000000	00007360	21323514	64428651	10000100	000		083271091010		2
N	09385001	00000000	00007360	20400414	65722781	15000085	000		074770467810		2
N	09385001	00000000	00007360	20258314	65355341	15000090	000		072440634910		2
N	09385001	00000000	00007360	20178714	65025351	15000095	000		071140804010		2
N	09385001	00000000	00007360	20162814	64652981	15000100	000		070900975010		2
N	09385001	00000000	00007360	20212514	64318401	15000105	000		071731147810		2
N	09385001	00000000	00007360	19229214	65647371	20000090	000		062240496210		2
N	09385001	00000000	00007360	19099514	65310871	20000095	000		060110670610		2
N	09385001	00000000	00007360	19034914	64932171	20000100	000		059060846810		2
N	09385001	00000000	00007360	19036314	64551471	20000105	000		059101024710		2
N	09385001	00000000	00007360	19106114	64208871	20000110	000		060261204110		2
N	09385001	00000000	00007360	18063514	65612651	25000095	000		049800524010		2
N	09385001	00000000	00007360	17545814	65227081	25000100	000		047860705810		2
N	09385001	00000000	00007360	17495614	64839701	25000105	000		047050889210		2
N	09385001	00000000	00007360	17514414	64450601	25000110	000		047381073910		2

000000

A R C I N T E R S E C T I O N C A R D S

SVREG-POSN TIME DAYYRLATITUDELONGITUDE R1 R2 R1C R2C Y X POSN
HENO.- NO.

Bolix Spit

```
N0938500200000000000073601424291465544130850002050000137105465202
N0938500200000000000073601513771465808410850002100000217704301202
N0938500200000000000073601559621470045300850002150000292503037202
N0938500200000000000073601401021465055300900002000000099207799202
N0938500200000000000073601455581465304090900002050000187906759202
N0938500200000000000073601547391465523930900002100000272105630202
N0938500200000000000073601636051465755600900002150000351404407202
N0938500200000000000073601428001464817480950002000000143109073202
N0938500200000000000073601524461465022680950002050000234708062202
N0938500200000000000073601618461465238410950002100000322506966202
N0938500200000000000073601709651465505330950002150000405805782202
N0938500200000000000073601352481464345831000001950000085611269202
N0938500200000000000073601452691464538081000002000000183310360202
N0938500200000000000073601550981464739901000002050000277909376202
N0938500200000000000073601647001464951771000002100000368908311202
N0938500200000000000073601740511465214291000002150000455807162202
N0938500200000000000073601413381464107771050001950000119812545202
N0938500200000000000073601515111464257131050002000000220011659202
N0938500200000000000073601713061464703931050002100000411309665202
N0938500200000000000073601636861464210121100002050000352812036202
N0938500200000000000073601736651464414871100002100000449811028202
N0938500200000000000073601834391464629381100002150000543409942202
000000
```

A R C I N T E R S E C T I O N C A R D S

SVREG-POSN TIME DAYYRLATITUDELONGITUDE R1 R2 R1C R2C Y X POSN
HENO.- NO.

DAVIDON CSS-31

TRA/ TC/TI Tape

000000 0 1001 0000 153 0 000000 000000

000000 0 1001 0000 154 0 000000 000000

172530 0 0001

090731 0 1001

000000 0 1001 0000 168 0 000000 000000

(25)

Launch DA-2

TRA/TC/TI Tape

31315573

011001 0 0002 0000 155 000000 000000

240000 0 0002

010001 0 0002 0000 157 000000 000000

240000 0 0002

000001 0 0002 0000 156 000000 000000

240000 0 0002

010001 0 0002 0000 167 000000 000000

240000 0 0002

000001 0 0002 0000 168 000000 000000

240000 0 0002

H 9385 Corrector Tape for ship DAVIDSON

△ OUT – RAKE

000000 00 0000 0000 153 1 100002 100007 0000 000 000

134500 00 0000 0000 153 1 100007 000003 0000 000 000

000000 00 0000 0000 154 1 100011 000007 0000 000 000

084500 00 0000 0000 154 1 100014 000009 0000 000 000

125300 00 1820

125445 01 1777

125515 01 1460

184645 01 1530

184715 01 1565

000000 00 0000 0000 155 1 100010 100003 0000 000 000

000000 00 0000 0000 156 1 000004 000000 0000 000 000

000000 00 0000 0000 157 1 100007 100002 0000 000 000

135000 00 1430 0000 157 1 100004 000010 0000 000 000

235900 00 0000 0000 157 1 100004 000010 0000 000 000

A CHGS TO BOFIX - SPIT2

```
000000 00 0000 0000 165 1 100001 100002 0000 000 000
000000 00 0000 0000 166 1 100008 000002 0000 000 000
000000 00 0000 0000 167 1 100002 100009 0000 000 000
051500 00 1530
051630 00 1509
051700 00 1625
053930 00 1220
054030 00 1190
054130 00 1150
055000 00 1180
091000 00 0000 0000 167 1 100009 100009 0000 000 000
235900 00 0000 0000 167 1 100009 100009 0000 000 000
```

H 9385 corrector tape for launch DA-2

000000 00 0000 0000 155 1 000007 000002 0000 000 000 } OUT-RAKE
000000 00 0000 0000 157 1 000007 000002 0000 000 000 }

000000 00 0000 0000 166 1 000007 000003 0000 000 000 } BOEIX-SPIT2
000000 00 0000 0000 167 1 100007 100008 0000 000 000
000000 00 0000 0000 168 1 000001 100004 0000 000 000
235900 00 0000 0000 168 1 000001 100004 0000 000 000

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 S. Green
Supervisory Cartographic Technician

Approved and forwarded,

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

TIDE NOTE

CORRIDOR SURVEY

OPR - 999

SHEETS L,N,Q,P

The reference tide gage for this project was the standard tide gage on the Cordova Municipal Dock in Cordova, Alaska. Field tide reductions of soundings was based on predicted tides for Port Etches, Hinchinbrook Island, Prince William Sound.

Three bristol bubbler tide gages have been installed in the project area. All gages operated on 135° W time for the duration of this project. Location and dates of installation were as follows:

Cape Hinchinbrook	N 60° 14'3 146° 38'9 W	24 May 1973
Johnstone Point	N 60° 29'0 146° 36'7 W	19 May 1973
Smith Island	N 60° 31'9 147° 20'5 W	17 May 1973

Marigrams were corrected for time and height variations wherever possible. A common problem to all marigram records was the heavy surge traces despite dampening the tide gage mechanism.

Cape Hinchinbrook	S/N 62A91; 0-30 ft. range five benchmarks connected on 24 May; gage replaced on 21 June by gage S/N 64A11028. The orifice installation was very difficult and time consuming due to the very heavy surge (2-3 feet) in this area. Six different attempts were made before satisfactory arrangement was reached.
Johnstone Point	S/N 68A9338; 0-30 ft. range five benchmarks established and connected on 19 May 1973. Marigram reading 10.0' staff zero. Orifice installation was hampered by thick beds of kelp.
Smith Island	S/N 64A11021; 0-30 ft. range. Five benchmarks established and connected on 17 May 1973. Marigram reading 5.0' above staff zero. A heavy rock was used to anchor the orifice in water. This appears to be the least troublesome of all gages in project area.

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

10/24/73

(3)

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center

Hourly heights are approved for 362

Tide Station Used (NOAA form 77-12): Johnstone Point, Alaska

Period: May - August 1973

HYDROGRAPHIC SHEET: H-9385

OPR: 999

Locality: Prince William Sound, Alaska

Plane of reference (mean lower low water): 4.7 ft. 139 Time Period (5/19 - 6/6) 157
9.8 ft. 157 (6/6 - 8/1) 213

Height of Mean High Water above Plane of Reference is 11.0 ft.

Remarks: Note change in MLLW datum for specified time periods.

Hourly heights have been verified, and corrections made for the following times:

	DAY	TIME	Zoning:
Not needed	146	0700	Apply a range ratio x .92 to Johnstone Point hourly heights from upper limit of sheet south to Lat. 60°17' - Remainder of sheet use Cape Hinchinbrook heights directly.
Not needed	150	0400-0600	
	157	(0600-0700)	
Not needed	185	(1100-1700)	
"	193	0400	
"	194	0200-0500, 0800-1000, 1200-1600, 1800-2200	
	196	0700-1200, 1500-1700, 1900-2300	
Not needed	206	0800	
"	208	1600	

APPLY .89 to Johnstone for Hinchinbrook

E. D. Thurlow
Chief, Tides Branch

RE: TIDE ZONING ON OPR-444 P.W. YOUNG 1100-113C
H-9383, H-9385, H-9386, H-9387

TEL CON JIM HUBBARD - MKL MAKI

ADVISED THAT MUCH OF THE HYDROGRAPHY ON THE SHEETS FOR WHICH CAPE HINCHINBROOK GAGE IS TO APPLY, HAS MISSING HOURLY HEIGHTS ON THAT GAGE - WE DO HOWEVER HAVE HOURLY HEIGHTS FOR ALL PERIODS OF HYDRO FOR THE JOHNSTONE POINT GAGE -

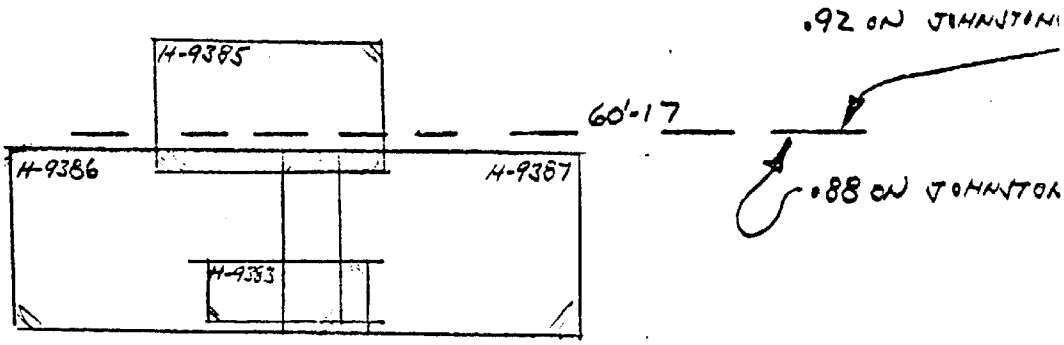
BASED ON: CAPE HINCHINBROOK MEAN RANGE OF 8.4
JOHNSTONE POINT " " OF 9.6

$$\frac{8.4}{9.6} = .875$$

.88 RATIO CAN BE APPLIED TO JOHNSTONE PT. WITH NO TIME DIFFERENCE TO GET HINCHINBROOK

```
.875
96 | 8400
   768
   ----
    720
    672
    ---
     480
     480
     ---
```

OUTCOME OF CONVERSATION WAS TO APPLY .92 RATIO ON JOHNSTONE PT ON H-9385 NORTH OF 60°-17 AS OBTAINED ON FORM 712 - FOR ALL OF H-9385 SOUTH OF 60-17 AND ALL OF H-9386, H-9387, AND H-9383 USE JOHNSTONE POINT WITH .88 RATIO & NO TIME DIFFERENCE - HE WILL SEND A MEMO CONFIRMING THIS -



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

TH-9385

Date: November 6, 1973

Reply to Attn of: C3311-86-GTM

Subject: Tide corrections for Priority Survey 999

To: Chief Processing Division CPM3

The tide gage installed at Cape Hinchinbrook, Prince William Sound appears to have malfunctioned frequently during periods of hydrography.

During times of missing tide data we recommend trying to use Johnstone Point hourly heights, reduced to mean lower low water, and applying a range ratio of X .88 feet to refer heights to Hinchinbrook.

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

GEOGRAPHIC NAMES

Survey No. H-9385, 1973

Name on Survey	A: On Chart No. C&GS 8520	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	
BEAR CAPE	X									1
HINCHINBROOK ENTRANCE	X									2
SCHOONER ROCK	X									3
ZAIKOF BAY	X									4
ZAIKOF POINT	X									5
Port Etches	X									6
CAPE HINCHINBROOK	X									7
MONTAGUE ISLAND	X									8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
					Approved by					20
					Chas. E. Harrington					21
					Staff Geographer					22
					2-14-1974					23
										24
										25
										26
										27

M 234

NOAA FORM 77-27
(9-72)
(PRESC. 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-9385

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	4

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES			X			
CAHIERS	1					
VOLUMES	1	~~Raw Data~~	~~Printout Book~~			
BOXES Bundle		~~Smooth Data~~	~~Printout~~ Book			1

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

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				1922
POSITIONS CHECKED		1922	23	
POSITIONS REVISED		25	18	
DEPTH SOUNDINGS REVISED		180	6	
DEPTH SOUNDINGS ERRONEOUSLY SPACED			—	
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED			1	
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		Ø	—	
JUNCTIONS		2	4	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		36	8	
SPECIAL ADJUSTMENTS			16	
ALL OTHER WORK		59	22	
TOTALS		97	50	

PRE-VERIFICATION BY	BEGINNING DATE	ENDING DATE
VERIFICATION BY James L. Stringham James L. Stringham	BEGINNING DATE 6 August 1973	ENDING DATE 10 December 1973
REVIEW BY Dennis J. Rosenberg Insp. by Carstens 5 hr 5/2/74	BEGINNING DATE 4-3-74	ENDING DATE 4-11-74

* U.S. G.P.O. 1972-769-562/439 REG.#6

REGISTRY NO. H-9385

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 REQUIRED _____ INITIALS _____

REMARKS:

During update, all hand-plotted soundings, crossed out in the final excess sounding printout, should be restored to the smooth plot data bank in the appropriate format.

REGISTRY NO. H-9385

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE 9-30-82 TIME REQUIRED _____ INITIALS JAC

REMARKS:

INFORMATION FOR FUTURE PRESURVEY REVIEWS

This area is noted for its adverse weather and sea conditions which may hinder survey operations.

With the City of Valdez as the southern terminus of the Trans-Alaskan Oil Pipeline, waterborne traffic should increase significantly in this area.

Position Index		Bottom Change	Use	Resurvey
Lat.	Long.	Index	Index	Cycle
601	1470	1	1	50 Years
601	1465	1	1	50 Years
602	1470	0	1	50 Years
602	1465	1	1	50 Years

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9385 FIELD NO.: DA-20-1-73

Alaska, Prince William Sound, Hinchinbrook Entrance

SURVEYED: June 2-29, 1973

SCALE: 1:20,000 PROJECT NO.: OPR-999

SOUNDINGS: Ross Digital Depth Recorder
Raytheon DE-723 Depth Recorder

CONTROL: Raydist (Range-Range)

Chief of Party..... M. H. Fleming
Surveyed by..... H. B. Milburn
..... R. L. Crozier
..... R. P. Hewitt
..... J. J. Kapler
..... K. X. Gores
..... R. H. West
..... J. L. Oswald
Protracted by..... Gerber Digital Plotter-PMC
Soundings plotted by..... Gerber Digital Plotter-PMC
Verified by..... J. L. Stringham
Reviewed by..... D. J. Romesburg
Date: 4-11-74
Inspected by..... R. H. Carstens

1. Description of the Area

This corridor survey covers Hinchinbrook Entrance from lat. 16°14.3' to lat. 60°22.5' and between Zaikof Point on Montague Island and Port Etches and Bear Cape on Hinchinbrook Island. From the west the bottom drops abruptly off Montague Island to maximum depths over 190 fathoms and then rises uniformly as Hinchinbrook Island is approached. Several small shoals, one with a least depth of 7.8 fathoms, were located in the entrance to Zaikof Bay.

2. Control and Shoreline

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

As this is a corridor survey no shoreline is shown. Complete shoreline manuscripts around Hinchinbrook and Montague Island will be acquired with the resumption of Project OPR-452.

3. Hydrography

A. Soundings at crossings are in good agreement.

B. The usual depth curves were adequately delineated. Depth curves on the precipitous bottom near Montague Island will be better delineated with the inshore hydrography of OPR-452. Several brown curves were added to delineate isolated features.

C. The development of bottom configuration is considered adequate except on several shoals in the entrance to Zaikof Bay which were not fully developed for least depths.

4. Condition of the Survey

The survey records, automated plotting, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual and Instruction Manual-Automatic Hydrographic Surveys except as follows:

A. Least depths on shoals were determined by fathometer only. No attempt was made to verify least depths by hand lead or drift sounding.

B. Reference Station Fur, 1972 was incorrectly plotted on the smooth sheet.

C. The Tide Printout for the beginning of Julian Day 153, north of lat. $60^{\circ}17'$, is missing from the survey records.

D. The Raydist lane-count on station Rake was misread by 2 lanes on Julian Day 157, positions 5065-5083, resulting in crossing discrepancies of 5 fathoms. This crossline was replotted by the reviewer using the revised positions and satisfactory crossing agreement was attained.

E. No records to verify the position of the wreck reported in Paragraph G of the Descriptive Report were found in the survey records.

F. Descriptions of several bottom samples were not completely entered on the smooth sheet by the verifier and were revised during review.

G. See Q.C. Report for H-9713(1977)- section 1-b, H-9713 junctions H-9385 on the east.

5. Junctions

An adequate junction was effected with H-9386 (1973) and H-9387 (1973) on the south and with H-9382 (1973) on the north.

No contemporary surveys join the present survey on the east and west but present survey depths are in harmony with those charted in these areas.

Surveyor J. J. Kapler provided assurance in a memorandum dated 5-30-74 that sufficient field observations had been obtained to plot and verify the location of the wreck.

6. Comparison with Prior Surveys

H-2612 (1902) 1:40,000

A comparison between the prior and the present survey shows sounding differences of 1-25 fathoms with the shoaler soundings recorded on the present survey. The sounding differences usually increased as the depths became greater. These disagreements are attributed to the surveying methods on the prior survey that employed lead line and sounding machine to obtain soundings, especially under the adverse weather and sea conditions encountered in 1902, and to a lesser degree to the general uplift of 8 feet or more in this area as a result of the Prince William Sound Alaska Earthquake of 1964.

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

7. Comparison with Chart 8520 15th Ed. Jan. 20th, 1973
Chart 8551 14th Ed. Jan. 25th, 1971

A. Hydrography

Most of the charted hydrography originates with the previously discussed prior survey which requires no further consideration.

Attention is directed to the following:

(1) Several charted soundings originate with Chart Letters 654 (1964) 810 (1964) and Bp's 65970, 66416 and 66420 as part of a special reconnaissance operation to investigate the effects of the Prince William Sound Alaska Earthquake of 1964. Sounding correctors and horizontal control for the soundings obtained on this expedition were not of acceptable quality for hydrographic surveys. The charted soundings from the above sources are superseded by the present survey within the common area.

(2) The stranded wreck (Presurvey Review Item #1) charted in lat. 60°15.92', long. 146°56.95' originates with Chart Letter 1369 of 1969. Paragraph G of the Descriptive Report states that the wreck was located at lat. 60°15.95', long. 146°56.99'. However, no supporting data was found in the survey records to verify this location. It is recommended that the charted position be retained until the present survey location can be verified.

(3) The 14 reported depths (Presurvey Review Item #5) charted in the entrance of Zaikof Bay originate with Chart Letter 786 of 1944. Although two shoals were reported and are charted on Chart 8851 only one is shown on chart 8520. The easterly reported shoal is superseded by the 7.8-fathom shoal shown on the present survey. The westerly shoal is beyond the limit of the present survey and should be retained on the chart.

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 survey area.

8. Compliance with Project Instructions

This survey adequately complies with the Project Instructions.

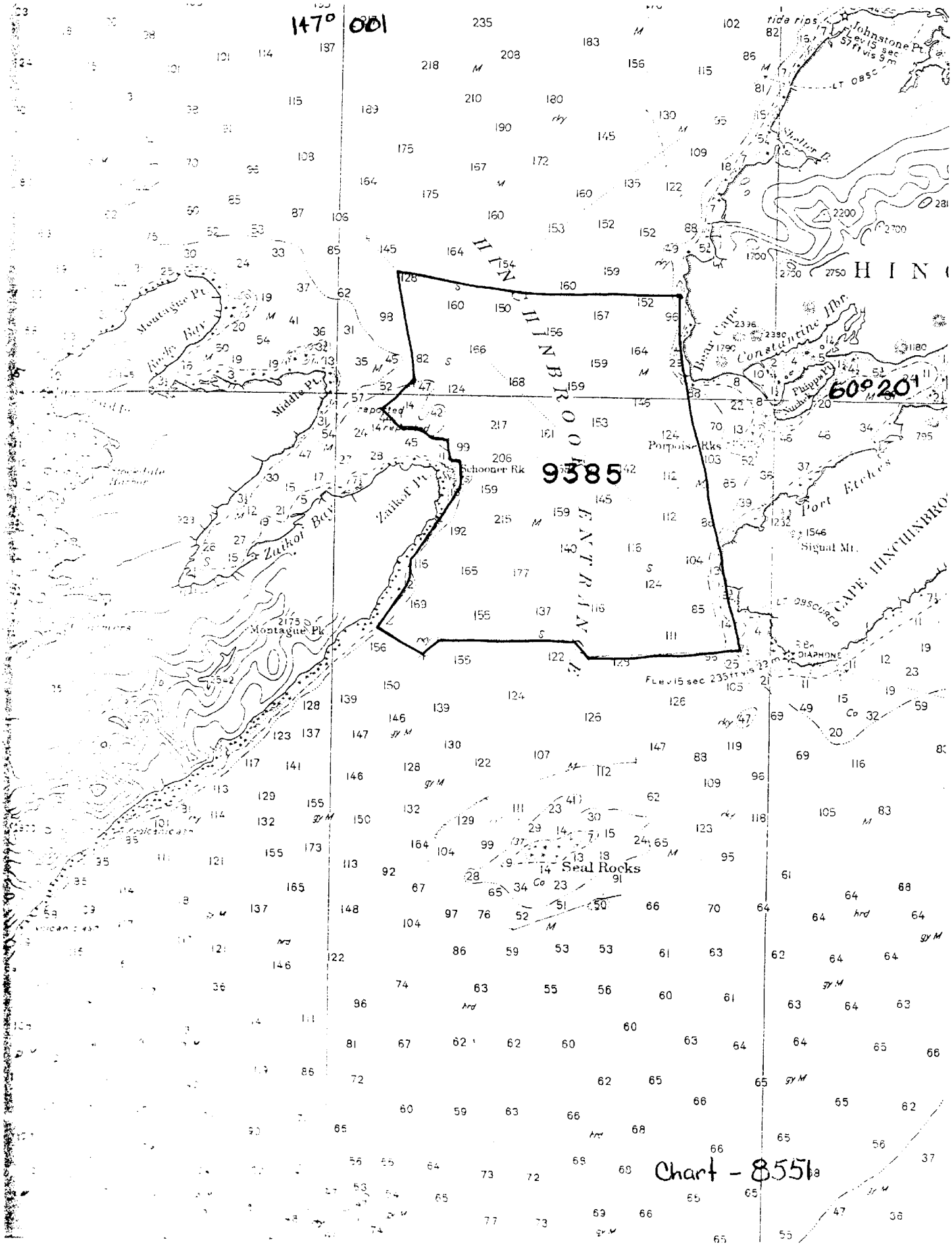
9. Additional Field Work

This is a good basic survey and no additional field work is recommended. However, the shoals that fall along the western edge of the present survey in Zaikof Bay and the wreck mentioned in Paragraph 8, Part 2 of this review should be investigated specifically for least depth and location respectively with the resumption of Project OPR-452.

Examined and Approved:

Chief
Marine Chart Division

Associate Director
Office of Marine Surveys
and Maps


147° 00'
60° 20'
HINCHINBROOK ENTRANCE
9385
Montague Pk
2175
Zaikof Bay
Zaikof Pt
Schooner Rk
Porpoise Rks
Seal Rocks
Signal Mt.
CAPE HINCHINBROOK
Port Etches
Bear Cape
Constantine Hbr.
Johnstone Pt
Mather Pt
Middle Pt
Montague Pt
Reefs Bay
Phipps Pt
Chart - 8551

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9385

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
8520	2/16/78	Imma Alexander	~~Full~~ Part ~~Before~~ After Verification [redacted] Via
			Drawing No. Critical Corrections only
8551	9/30/77	Mark J. Fraser	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. Fully applied hydro throughout common area
8520	4/11/79	J. Bailey	Full ~~Part Before After Verification Review~~ Inspection Signed Via
			Drawing No. 14 Fully Applied hydro
			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.
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			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

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