9287

Diag. Cht. No. 8102-3.

FORM C&GS-504

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

DESCRIPTIVE REPORT

Type of Survey: Hydrographic

Field No. FA 10-3-72 Office No. H-9287

LOCALITY

State: Alaska

General locality: ~~Southeast Alaska~~ Ernest Sound

Locality: ~~Ernest Sound~~ Vixen Inlet to Union Pt

19 72

CHIEF OF PARTY

CAPT R. H. Houlder, Comdg., NOAA Ship FAIRWEATHER

LIBRARY & ARCHIVES

DATE: ~~March - May 1972~~ Oct 29 1974

Charts 8102
8124
8161
8201

9287

FORM C&GS-537 (8-66)

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

REGISTER NO.

HYDROGRAPHIC TITLE SHEET

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

FIELD NO. FA-10-3-72

State Alaska

General locality Ernest Sound, ~~S.E. Alaska~~

Locality Vixen Inlet to Union Pt

Scale 1:10,000 Date of survey 20Mar. to 11 Apr.,1972

Instructions dated 28 February 1972 Project No. OPR-465-FA-72

Vessel NOAA Ship FAIRWEATHER Launche FA-5

Chief of party CAPT. R. H. Houlder

Surveyed by LTjg. E.G. Wood and LTjg. F.B. Arbusto

Soundings taken by echo sounder, hand lead, pole Raytheon DE-723, serial no. 558

Graphic record scaled by FAIRWEATHER personnel

Graphic record checked by FAIRWEATHER personnel

Positions verified by B.A. OLMSTEAD Automated plot by Gerber PMC Digital Plotter

Soundings verified by B.A. OLMSTEAD

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

REMARKS: Position of ⊙ 098 Red Raydist tower in error by 75m.
Reviewer - add dashed circle position and replot only
features as shoal in 55°49', 132°11' and 4.9 fm line
at 55° 48.3', 132° 09.6'
RHC

Applied to Stds 11-25-74
CAB.

USCOMM-DC 37009-P66

COMPUTER BOAT SHEET LAYOUT

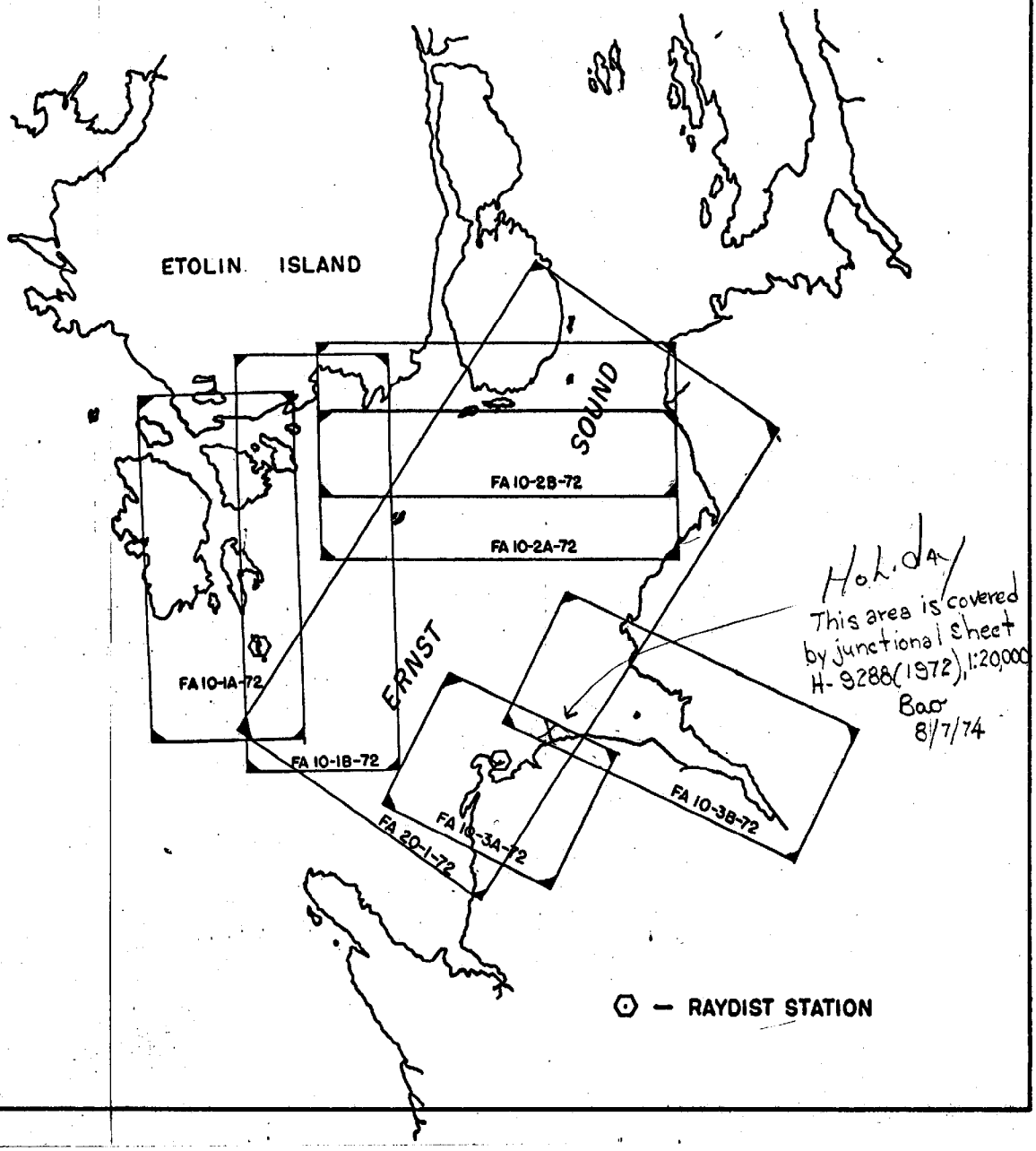
OPR-465

ERNEST SOUND, S.E. ALASKA

NOAA SHIP FAIRWEATHER

CAPT. R. H. HOULDER CMDG

SCALE OF C&GS CHART 8102



Holiday

This area is covered by junctional sheet H-9288(1972), 1:20,000

Bao 8/7/74

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SHEET H-9287 (FA 10-3-72)
ERNEST SOUND, ALASKA
SCALE 1:10,000
NOAA SHIP FAIRWEATHER
CAPT R. H. HOULDER, COMMANDING

A. PROJECT

The survey was accomplished under OPR 465-FA-72, Clarence Strait and Ernest Sound, Southeast Alaska, project instructions dated 28 February 1972, and in accordance with the PMC OPORDER.

B. AREA SURVEYED

This survey includes the area of Vixen Inlet and Vixen Harbor from Vixen Pt. to Union Pt. The sheet is bounded on the north by latitude 55°51'00"N, and on the south by 55°45'30"N. It extends from longitude 132°13'00"W, on the west, and to longitude 132°09'30"W on the east.

The control was established from 14 March through 30 March 1972. Hydrography was accomplished from 20 March through 11 April 1972.

A junction was made with prior surveys H-4253 and H-9191.

C. SOUNDING VESSELS

FAIRWEATHER Launch FA-5 accomplished all of the hydrography. Position numbers used were 6001-8011.

D. SOUNDING EQUIPMENT

A Raytheon DE-723 fathometer, serial number 558, was used for all soundings. Depths in the surveyed area ranged up to 100 fathoms. The echo sounding velocity corrections were determined from serial temperature and salinity observations. Bar checks were taken daily. Abstracts of velocity and TRA correctors are included with this report.

E. SMOOTH SHEET

The position and sounding data were recorded, logged for automated processing and plotted by ship's personnel using the digital PDP8/E computer. The plot was scanned for discrepancies, errors corrected, and the data re-plotted as final field plot. The signal list was prepared by ship's personnel. The final smooth sheet is to be re-plotted electronically and verified by personnel at Pacific Marine Center or AMC.

F. CONTROL

All hydrography was accomplished by visual fix methods. The control signals were established from photo identified points on incomplete manuscripts, scale 1:10,000, nos. T-11980, T-11981, T-11982 and T-12374. ✓

Signals nos. 008, 010, 066 and 068 were located using sextant angles. ✓

G. SHORELINE

The shoreline was transferred directly to the boat sheet from incomplete manuscripts, scale 1:10,000, nos. T-11980, T-11981, T-11982 and T-12374. ✓ Field edit was completed on all of the manuscripts.

H. CROSSLINES

Crosslines, consisting of approximately twelve per cent of the regular system of sounding lines, were in good agreement. ✓

I. JUNCTIONS

Junction was made with FA 20-1-72 and was complete and adequate. ✓

J. COMPARISON WITH PRIOR SURVEY

Comparison was made with prior surveys H-4253, 1922 and with H-9191, 1971. Bottom characteristics are in very good agreement with both surveys. ✓ Soundings from the 1922 prior survey were corrected for the N.A. 1927 datum shift before comparison was made.

Investigation was made of the applicable items listed on the Pre-Survey Review, OPR-465, dated 20 February 1971, and the following recommendations made:

1. The dolphins charted in lat. 55°48.31', long. 132°03.49' were searched for extensively but not found. However, a large (3 ft. diameter, 15 ft. long) floating log anchored to the bottom with a heavy chain, was found near there at lat. 55°48'15.11"N., long. 132°03'24.86"W. (Refer to Field Edit Report). ✓

2. The possibility of a permanent feature located at lat. 55°48'19", long. 132°09'13" (signal MID on T-4000, 1922) was investigated thoroughly. No such feature exists at this location, although the depth in the general vicinity is less than one fathom. The zero fathom curve extends to within 150 meters of this location and a large rock is located 100 m. inshore from it. ✓

3. The 4-3/4 fathom sounding at lat. 55°48.3', long. 132°09.3' (shown by a dashed circle on the Pre-Survey Review) was verified. ✓

4. The 5-3/4 fathom sounding at lat. 55°50.35', long. 132°05.95' (dashed circle item on Pre-Survey Review) was found to be a shoal area with a least depth of 3.6 fathoms. Verifier found least depth to be three fathoms.

K. COMPARISON WITH THE CHART

Comparison of the survey with C&GS Chart No. 8161, scale 1:80,000, 5th Edition, 12 June 1971 and with C&GS Chart No. 8124, scale 1:40,000, 8th Edition, 28 August 1971 indicated good agreement. Exceptions are noted under Pre-Survey Review Items nos. 1-4.

The shoal area located on C&GS Chart No. 8161 at approximately lat. 55°50'00"N., long. 132°05'40" was developed extensively and appears as an overlay to the regular system of sounding lines on FA 10-3-72 (computer sheet FA-10-3b-72).

L. ADEQUACY OF THE SURVEY

This survey is considered complete and adequate for charting.

M. AIDS TO NAVIGATION

There are no aids to navigation in the survey area.

N. STATISTICS

	FA-5
Positions	2010
Sounding lines (n.m.)	188.9
Bottom Samples	12
Area Surveyed	6.1 sq. n.m.

O. MISCELLANEOUS

None.

P. RECOMMENDATIONS

None.

Q. REFERENCE TO REPORTS

1. Fathometer and Velocity Correction Report, OPR 465, Ship FAIRWEATHER, 1972.
2. Field Edit Report, OPR 465, Ship FAIRWEATHER, 1972.
3. Hydrolog/Hydroplot System Status Report, OPR 465, Ship FAIRWEATHER, 1972.
4. Tide Gage Report, OPR 465, Ship FAIRWEATHER, 1972.
5. Horizontal Control Report, OPR 465, Ship FAIRWEATHER, 1972.

Respectfully submitted,

Emerson G. Wood

Emerson G. Wood
LT (jg), NOAA

TIDE NOTE ✓

Predicted tides for Union Bay, taken from the tide tables, were used for the field sounding reductions. Two Bristol Bubbler Tide Gages were installed in the project area and one in Union Bay.

A complete report has been prepared detailing the tidal observations for this project. Refer to Tide Gage Report, OPR 465, Ship FAIRWEATHER, 1972.

GEOGRAPHIC NAMES

Survey No.

H-9287

Name on Survey	On Chart No. 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 Atlas F	Rand McNally Atlas G	U. S. Light Lists H	K	
CLEVELAND PENINSULA										1
ERNEST SOUND										2
SUNSHINE ISLAND										3
UNION BAY										4
UNION POINT										5
VIXEN HARBOR										6
VIXEN INLET										7
VIXEN POINT										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
					Approved					21
					Chas. E. Harrington					22
					Staff Geographer					23
					31 Jan. 1975					24
										25
										26
										27

Sounding Depths (Fms.)	Corrector (Fms.)
0.0 - 64.5	0.0
64.6 - 88.5	+0.1
88.6 - 105.1	+0.2
105.2 - 120.0	+0.3
120.1 - 133.0	+0.4
133.1 - 145.0	+0.5
145.1 - 156.1	+0.6
156.2 - 167.3	+0.7
167.4 - 177.9	+0.8
178.0 - 188.0	+0.9
188.1 - 198.0	+1.0
198.1 - 208.0	+1.1
208.1 - 217.1	+1.2
217.2 - 226.6	+1.3
226.7 - 235.8	+1.4

Abstract of correctors as specified by Hydro Manual, Sections 1-39, 3-114, and Table 2 is as follows:

Sounding Depths (Fms.)	Corrector (Fms.)
0.0 - 139	0.0
140 - 235	+1

Correctors as per Hydro Manual are to be applied to the following sheets:

H - 9285 (FA10-1-72)
H - 9286 (FA10-2-72)
H - 9287 (FA10-3-72)
H - 9288 (FA20-1-72)

VELOCITY CORRECTIONS

Velocity corrections to be applied to the soundings of sheet FA 10-3-72 (H-9287) are as follows:

Sounding Depths (Fms.)	Correction (Fms.)
0.0 - 139	0.0
140 - 235	+1

For substantiation and details see Fathometer and Velocity Correction Report, OPR 465, Ship FAIRWEATHER, 1972.

TRANSDUCER & INITIAL CORRECTORS

BOATSHEET FA 10-3-72 LAUNCH FA-5

DAY #	COMPUTER SHEET #	BEGINNING TIME	BEGINNING POS. #	TRA CORR.	INITIAL CORR.	TOTAL CORR.
080	FA 10-3B-72	123000	6001	0.0	0.0	0.0
080	"	152415	6017	+0.1	0.0	+0.1
080	"	154000	6026	0.0	0.0	0.0
80	"	160645	6036	+0.1	0.0	+0.1
081	"	103000	6106	0.0	0.0	0.0
081	"	110930	6107	+0.1	0.0	+0.1
082	"	084730	6243	+0.1	0.0	+0.1
083	"	084630	6415	+0.1	0.0	+0.1
084	"	092930	6674	+0.1	0.0	+0.1
088	"	085000	6817	+0.1	0.0	+0.1
089	"	084230	7034	+0.1	0.0	+0.1
90	"	130530	7286	+0.1	0.0	+0.1
091	"	084030	7352	+0.1	0.0	+0.1
091	FA 10-3A-72	105900	7391	0.0	0.0	0.0
094	"	121200	7400		0.0	
095	"	083230	7491	+0.1	0.0	+0.1
098	"	083645	7691	+0.1	0.0	+0.1
101	"	110015	7916	+0.1	0.0	+0.1
102	"	082630	7982	+0.1	0.0	+0.1

OCEANOGRAPHIC STATION PLOTTING SHEET

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

NO	STATION	DATE	PLOTTED BY	CHECKED BY	APPROVED BY
465	ERNEST SND.	AVERAGE	FBA Jr		

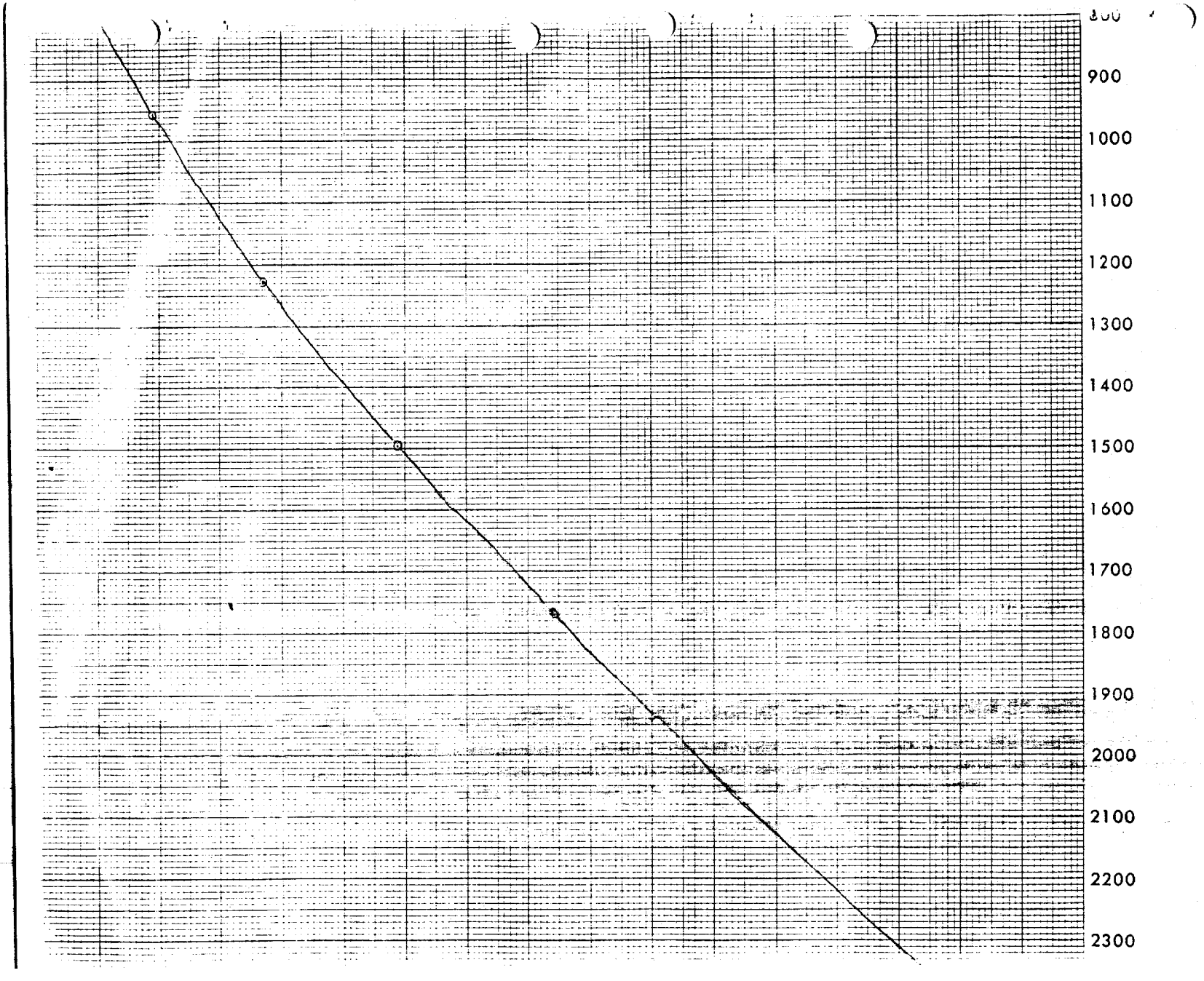
.75	.00	.25	.50	.75	.00	.25	.50	.75	.00	.25	.50	.75	.00	.25	.50	.75	.00	
.60	.80	.00	.20	.40	.60	.80	.00	.20	.40	.60	.80	.00	.20	.40	.60	.80	.00	
.60	.00	.00	.20	.40	.60	.80	FATHOMS	.20	.40	.60	.80	.00	.20	.40	.60	.80	.00	

0° +.1° +.2° +.3° +.4° +.5° +.6° +.7° +.8° +.9° +1.0° +1.1° +1.2° +1.3° +1.4° +1.5°

Deep Scale

100
200
300
400
500
600
700
800
900
1000
1100

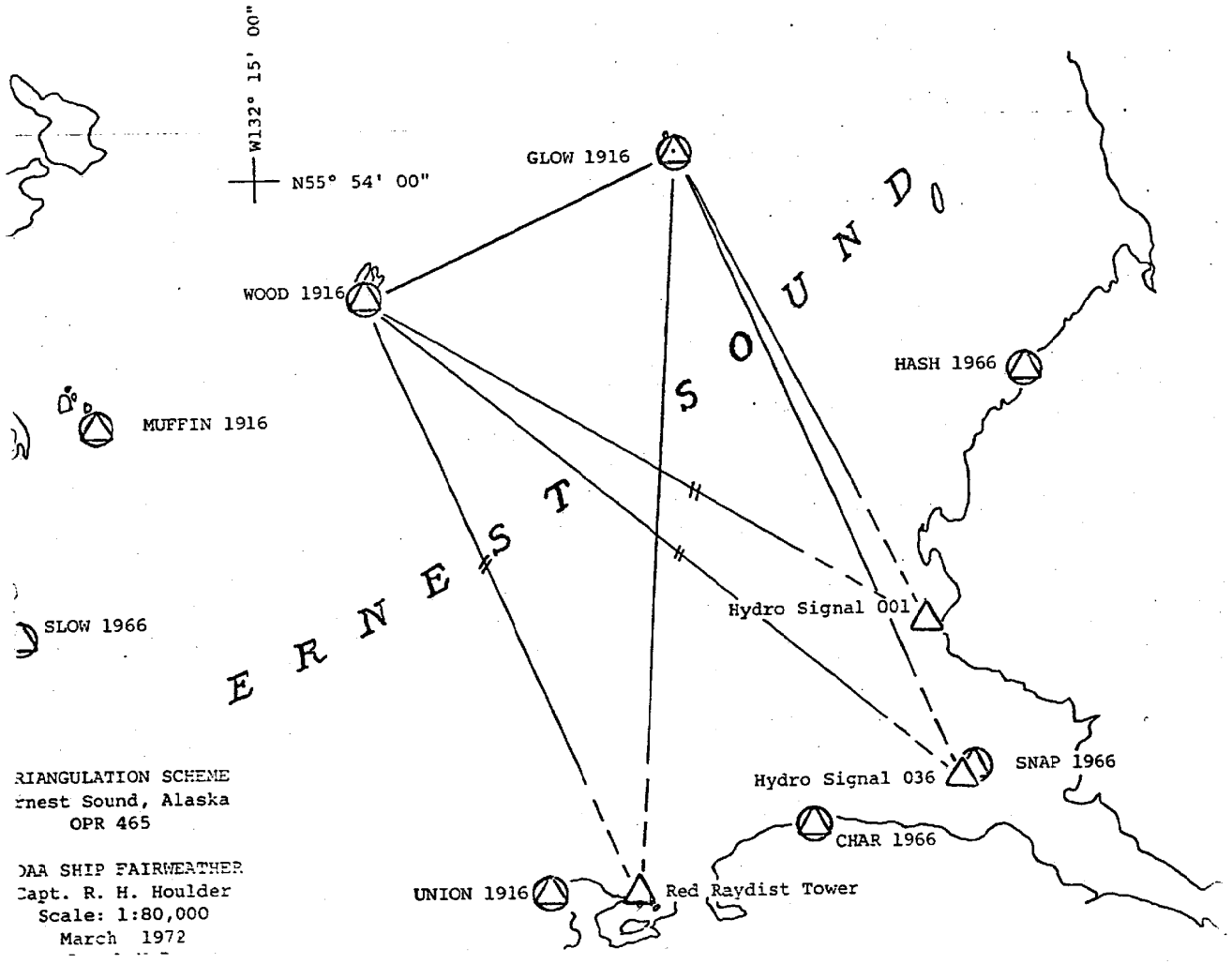
① = POINTS AVERAGE EACH AVERAGE OF TWO CASTS


900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300

SIGNAL LIST - FA-10-3-72 ✓

SIGNAL NO.	LAT. (° ' ")			LONG. (° ' ")			TYPE OF SIGNAL	SOURCE
001	55	50	2160	132	05	3367	TRIANGULATION (Temp) PHOTO-HYDRO	*3RD ORDER T-11980
002	55	50	4462	132	05	3436	"	"
003	55	50	3469	132	05	1103	"	"
004	55	50	1503	132	05	2350	"	"
005	55	50	0527	132	05	1775	"	"
006	55	49	5642	132	05	0000	"	"
007	55	49	4916	132	04	2829	"	
008	55	49	4035	132	04	0000	"	SEXTANT CUTS
009	55	49	4190	132	03	3342	"	T-11980
010	55	49	2987	132	03	2992	"	SEXTANT CUTS
011	55	49	3072	132	03	1528	"	T-11980
012	55	49	1740	132	03	2739	"	"
013	55	48	5400	132	03	3891	"	T-11981
014	55	48	3531	132	02	5269	"	"
015	55	48	2532	132	02	3525	"	"
016	55	48	0660	132	01	4150	"	"
022	55	47	5413	132	01	5543	"	"
023	55	48	0301	132	02	3174	"	"
024	55	48	0398	132	03	0930	"	"
025	55	48	1720	132	03	4345	"	"
026	55	48	2942	132	04	0631	"	"
027	55	48	3912	132	04	3714	PHOTO-HYDRO	T-11982
028	55	48	3159	132	05	1751	"	T-11981
029	55	48	4093	132	05	4030	"	"
030	55	48	4048	132	06	2061	"	"
031	55	48	4291	132	06	3674	"	"
032	55	48	4287	132	07	1205	TRIANGULATION	CHAR 1966
033	55	48	4226	132	07	4375	PHOTO-HYDRO	T-11981
034	55	49	0857	132	05	0029	TRIANGULATION	SNAP 1966
035	55	49	0970	132	05	0764	PHOTO-HYDRO	T-11981
036	55	49	0398	132	05	0993	TRIANGULATION (Temp)	3RD ORDER
050	55	48	3589	132	08	0316	PHOTO-HYDRO	T-11981
051	55	48	3172	132	08	2474	"	"
052	55	48	2499	132	08	4294	"	"
053	55	48	0889	132	09	1831	"	"
054	55	48	0731	132	09	3048	"	"
055	55	48	0323	132	09	4276	"	T-11981
056	55	47	5332	132	09	4068	"	"
057	55	48	0042	132	09	5034	"	"
058	55	48	0091	132	09	5585	"	"
059	55	47	5956	132	09	5789	"	"
060	55	48	0294	132	10	1435	"	T-12374
061	55	47	5177	132	10	2226	"	"
062	55	47	4653	132	10	1434	"	T-11981
063	55	47	4847	132	10	0063	"	"
064	55	47	4553	132	09	5984	"	"
065	55	47	4947	132	09	4516	"	"
066	55	48	1280	132	10	1849	"	SEXTANT CUTS
067	55	48	1898	132	10	3622	"	T-12374
068	55	48	1620	132	10	5047	"	SEXTANT CUTS
069	55	48	1112	132	11	0396	TRIANGULATION	UNION 1916
070	55	47	4692	132	11	3173	PHOTO-HYDRO	T-12374
098	55	48	0812	132	09	5109	RAYDIST ANTENNA (Temp)	3RD ORDER
100	55	51	0000	132	04	3000	Grid Intersection	Bao 8/7/74

* Position is apparently in error, See H-9288, H-9286, H-9285



RIANGULATION SCHEME
rnest Sound, Alaska
OPR 465

DAA SHIP FAIRWEATHER
Capt. R. H. Houlder
Scale: 1:80,000
March 1972

FORM C&GS-733M (6-66) FA 10-3A-72

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
ESS
COAST AND GEODETIC SURV

VESSEL	PROJ. NO.	YEAR	CHECKED BY	DATE CHECKED
FA-5	OPR-465	1972	D. W.	8-20-72

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.)
8001	11 APRIL '72	55°48'23"	132°11'08"	7.3				lt gn	Sh	ALL SAMPLES TAKEN WITH MUD SAMPLER.
8002	"	55°48'16"	132°09'51"	9.9				lt gn	Sh, S	
8003	"	55°47'58"	132°10'13"	6.9				gn	~~Sh~~ fine M	
8011	"	55°48'37"	132°08'50"	8.1				lt gn	Sh	

Use more than one line per sample if necessary.

USCOMM-DC 3

733M

FA 10-3A-72

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

PROJ. NO. OPR-465 | YEAR 1972 | CHECKED BY D.W. | DATE CHECKED 8-20-72

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.)
11 APRIL '72	55°48'23"	132°11'08"	7.3				lt gn	Sh	ALL SAMPLES TAKEN WITH MUD SAMPLER.
"	55°48'16"	132°09'51"	9.9				lt gn	Sh, S	
"	55°47'58"	132°10'13"	6.9				gn	~~S~~ Sh fine M	
"	55°48'37"	132°08'50"	8.1				lt gn	Sh	

USCOMM-DC

C&GS-733M

FA 10-3B-72

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMME
COAST AND GEODETIC SU

-5	PROJ. NO. OPR-465	YEAR 1972	CHECKED BY B.W	DATE CHECKED 8-20-72

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, dent: cutter, stat. no., type of bottom relief i.e. slope, plain, disposition, etc.)
3	30 MARCH '72	55°48'09"	132°02'18"	6.8				dk	S	ALL SAMPLES TAKEN WITH MUD SAMPLER.
4	"	55°48'35"	132°03'29"	16.2				dk	S	
1	"	55°48'48"	132°04'44"	16.9				dk	S	
2	"	55°49'20"	132°04'25"	18.9				dk	Rk, gnS	
3	"	55°49'04"	132°05'44"	26.7				lt	P, S, Sh	
1	"	55°49'34"	132°05'42"	17.9				bk	RK	
5	"	55°50'12"	132°06'08"	22.2				bk	S, P	

COMPUTER SHEET PARAMETER TAPES
FA 10-3-72
OPR 465

FA 10-3A-72

FEST = 20000
CLAT = 6178000
CMER = 132/12/00
GRID = 30
PLSCL = 10000
PLAT = 55/47/20
PLON = 132/14/28
S1LAT = 55/48/08.09
S1LON = 132/09/49.61
S2LAT = 55/50/22.96
S2LON = 132/18/33.54
Q = 3306.45
VESNO = 202X
YR = 72

FA 10-3B-72

FEST = 20000
CLAT = 6178000
CMER = 132/12/00
GRID = 30
PLSCL = 10000
PLAT = 55/48/54
PLON = 132/09/48
S1LAT = 55/48/08.09
S1LON = 132/09/49.61
S2LAT = 55/50/22.96
S2LON = 132/78/33.54
Q = 3306.45
VESNO = 2025
YR = 72

TRANSMITTAL SHEET ✓

The field work was examined daily under the supervision of this command. The boat sheet was inspected daily for completeness and no additional work is considered necessary.

R. H. Houlder
CAPT, NOAA
Comdg., Ship FAIRWEATHER

NOAA FORM 77-27
(9-72)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-131)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. H-9287

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

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

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	4					
CAHIERS	2					
VOLUMES	1					
BOXES				1		

T-SHEET PRINTS *(List)*

T-12374, T-11980, T-11981, T-11982

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				2010
POSITIONS CHECKED		2010		
POSITIONS REVISED		30		
DEPTH SOUNDINGS REVISED		200		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		0		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
Verification of Control		08		
Verification of Positions		29		
Verification of Soundings		157		
Smooth Sheet Compilation		133		
ALL OTHER WORK		24		
TOTALS		351		

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY		
VERIFICATION BY Bruce Alan Olmstead	10/17/73	8/9/74
REVIEW BY		

FORM C&GS-946A
(REV. 11-65)
SUPERS. BY HYDROGRAPHIC MANUAL, 6-94)

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

VERIFIER'S REPORT

HYDROGRAPHIC SURVEY, H 9287

INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

CL - Check List Items: should be checked as having been completed during the verification processes.

R - Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT	CL	R
Note: The verifier should first read the Descriptive Report for general information and problems.		
1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None	X	
2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None	X	
3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None	X	
Part II - SHORELINE AND SIGNALS		
4. Source of shoreline signals Remarks Required: -- List all surveys T-12374, T-11980, T-11981, T-11982.	X	
a. Give earliest and latest dates of photographs 1963 & 1965		
b. Field inspection date NONE		
c. Field Edit date 1971 & 1972		
d. Reviewed-Unreviewed		
5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.	X	X
6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None	X	
7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.	X	
Part III - JUNCTIONS		
Note: Make a cursory comparison preliminary to inking soundings in area of overlap.	X	
8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None		X
9. The notation in slanted lettering "JOINS H---- (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: -- None	X	

Part III - JUNCTIONS (Continued)	CL	R
10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of **Butt** junctions and areas which are **SUPERSEDED.**	X	
Part IV - VOLUMES		
11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None	X	
12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following:		
(a) rocks		X
(b) line turns	X	
(c) position values of beginning and ending of lines	X	
(d) bar check or velocity corrcctors		X
(e) time recording		X
(f) notes or markings on fathograms	X	
(g) was reduction of soundings accurately done?	X	
(h) was scanning accurate?	X	
(i) were peaks at uneven intervals missed?	X	
(j) were stamps completed?	X	
(k) references to adjacent features	X	
Part V - PROTRACTING		
13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None	X	
14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None	X	
15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None		X

Part V - PROTRACTING (Continued)	CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.	X	
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.	X	
Part VI - SOUNDINGS		
18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None	X	
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.	X	
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None	X	
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None	X	
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.	X	
Part VII - CURVES		
23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected.	X	X
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed Remarks Required: -- None	X	
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.	X	

Part VIII - AIDS TO NAVIGATION	CL	R
26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey. Remarks Required: -- Conflicts of any nature listed.	X	
27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification. Remarks Required: -- None	X	
Part IX - BOATSHEET		
28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None	X	
29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.	X	X
Part X - GENERAL		
30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2). Remarks Required: -- None	X	
31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None	X	
32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet. Remarks Required: -- None	X	
33. The bottom characteristics are adequately shown. Remarks Required: -- None	X	
Part XI - NOTES TO THE REVIEWER		
34. Unresolved discrepancies and questionable soundings.	X	
35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.	X	
36. Supplemental information.		X

Verified by

Bruce Alan Olmstead

Date

8/12/74

VERIFIER'S REPORT

H-9287 Ernest Sound, S.E. Alaska FA-10-3-72

This sheet was constructed at Pacific Marine Center, Seattle, Washington. Information relating to this will be noted under the heading by the number and letter as on the Verifier's Report, C & GS Form 946 A.

PART II SHORELINE AND SIGNALS

4. The shoreline was transferred from Class I Manuscripts T-11980-82 and T-12374. Photography was flown in 1963 and 1965. Field edit was accomplished during 1971 and 1972.

5. The dashed lines denoting approximate ledge limits on T-12374 were inked to conform to the surrounding hydrographic data. Minus soundings were retained and/or excessed to aid in coordinating ledge and reef limits with the photogrammetric definition.

   Below are detailed remarks concerning other hydrographic/topographic conflicts:

   a. The reef depicted on T-11981 latitude 55°48'51"N longitude 132°07'09"W was changed in configuration to support the surrounding hydrography.

   b. The high waterline shown on T-11982 latitude 55°48'56"N longitude 132°03'57"W does not agree with the detached positions taken by the hydrographic party. The survey team found this feature to be a ledge, highest point eleven feet above mean lower low water. Check angles are lacking on these particular DP's. Verifier left this item in pencil on the smooth sheet for further consideration by the reviewer. Recommend a ledge symbol be shown in red.

   c. A revision was made to the ledge at latitude 55°49'03"N longitude 132°05'03"W. Here, a detached position was taken by the survey party. Computation of height after application of correctors, produced an islet symbol which was inked in red.

   d. The shoreline on T-sheet manuscripts T-11980 and T-11982 does not junction. This area, latitude 55°49'15"N longitude 132°03'27"W was left in pencil for reviews final decision. Similar deficiencies occur in two other cases; T-11981 shows a reef hanging with no junctional support for complete delineation. Also, limit lines which should be flowing onto T-11980 from Sunshine Island are not present.

PART III JUNCTION

8. The junction with H-9288 (1972) 1:20,000 was made on the north, west and south. All curves were left in pencil one inch from the junctional area because of scale differences. The one, two, three and five fathom curves do not junction well because of electronic anomalies close in shore on H-9288 (1972). Several pencilled soundings were transferred from the adjoining survey. These were deemed of special importance in keeping the smooth sheet compilation process strongly cohesive.

PART IV VOLUMES

12a. Not all rocks were given check angles.

12d. Velocity correctors used were determined in part by the survey's minimum and maximum depths and Table 2, page 14 of the Hydrographic Manual. A rounding off process was incorporated instead of using exact correctors. In some cases, a .2 fathom difference was noted in the deeper depths. Draft correctors were offset by a .3 instrument error in the DE-723 fathometer found during bar checks.

12e. Several days of hydrography noted 15" busts in time. Most of these were corrected and plotted. The remainder, positions 7277-7280, were destroyed and the line ended at 7276.

12i. Peaks and deeps were entered by the field party on the raw data but not transferred to the corrected data. This left the verifier to insert many in-betweens on the Preliminary Sounding Overlay.

PART V PROTRACTING

15. Positions 7120 to 7121 fall between two rocks awash from manuscript T-11980. The fathograms show a peak of 2^{2} reduced to 1 fathom. The existence or non-existence of these two rocks were not proved.

b. Existence or non-existence of a ten foot rock at mean lower low water in depths of 7-8 fathoms could not be verified. Sounding lines were run close by but nothing was noted in the raw data or on the fathogram. Recommend retaining this rock for charting purposes. (latitude 55°48'59"N longitude 132°04'11" W).

c. Development of a shoal area at latitude 55°49'00"N longitude 132°11'00"W was not adequate. Recommend this feature be considered for future survey work. No

PART VII CURVES

23. a. Supplemental curves were used only once for purposes of defining the shoal at latitude 55°49'00"N longitude 132°11'00"W.

b. The depth curves were inspected by Matt Sanders, Cartographic Technician.

PART XI NOTES TO REVIEWER

36. Every other grid tick on the smooth sheet and smooth position overlay after latitude 55°47'30"N is in error. Determination as to which set of ticks is correct was done by comparison with the T-sheet manuscript, utilizing triangulation stations common to both charts.

b. The verifier utilized one psuedo signal for this sheet at coordinates latitude 55°51'00"N longitude 132°04'30"W. This was entered in the signal list.

c. Check angles for most of the detached positions were not made. No detached positions could be found for the southwest half of this survey.

d. Signal 001 was located close to a tide station. This was not noted in the Descriptive Report. Also, a current station was to be run for at least six consecutive days but was not plotted on the boatsheet.

e. Rocks and ledges that used elevations transferred from the manuscripts are listed as follows.

	Lat.	Long.
1.	55°50'04"N	132°05'28"W
2.	55°49'47"N	132°04'34"W
3.	55°49'45"N	132°04'24"W
4.	55°49'31"N	132°03'36"W
5.	55°48'55"N	132°03'44"W
6.	55°48'53"N	132°03'46"W
7.	55°48'49"N	132°03'15"W
8.	55°48'39"N	132°02'56"W
9.	55°48'35"N	132°02'54"W
10.	55°48'07"N	132°03'03"W
11.	55°48'23"N	132°03'51"W
12.	55°48'59"N	132°04'11"W
13.	55°49'11"N	132°04'57"W
14.	55°48'03"N	132°09'43"W
15.	55°48'51"N	132°07'08"W

Respectfully Submitted,

Bruce Alan Olmstead

Bruce A. Olmstead
Cartographic Technician

FORM # 2

PARAMETERS FOR DIGITAL COMPUTING

POLYCONIC PROJECTION

(1) Project No. _____ (4) Requested by _____

(2) H No. H 7227 (5) Ship or Office _____

(3) Field No. EH 10-? 72 (6) Data Required _____

(7) Visual [X] Ft.(0) or Fathoms (1) [1] (8) Electronic [ ] (fill out form #

(10) XKN (SP 5) Distance from CMER to East Edge (NYX = 1) or West Edge (NYX = 0). (Origin) 1220.17 Meters

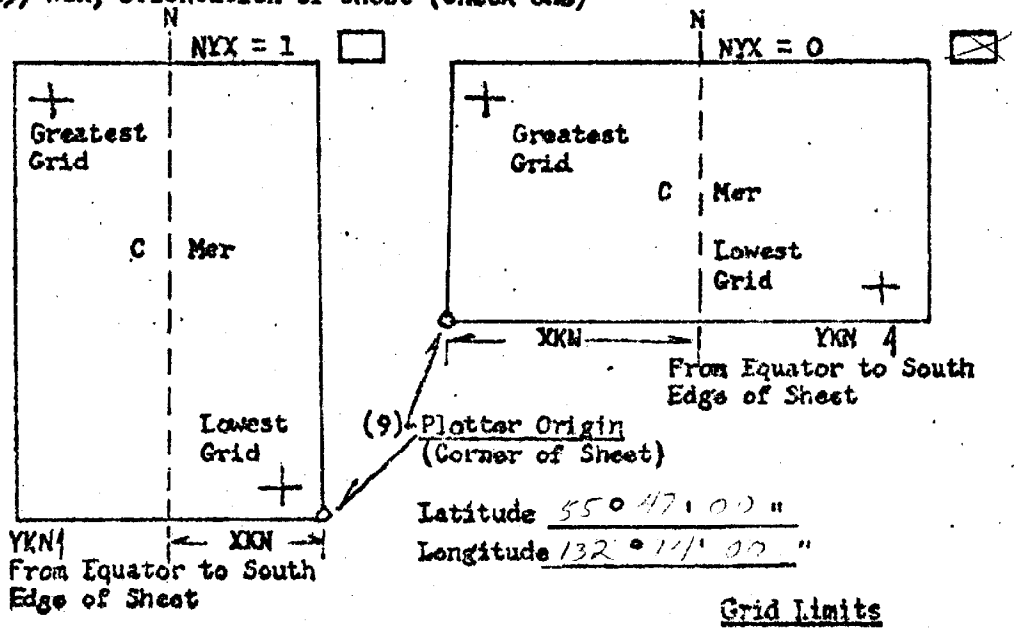
(11) YKN (SP 241) Distance from Equator to South Edge of Sheet. (Origin) 6,191,225.025 Meters

(12) Central Meridian 132° 07' 00"

(13) Survey Scale 1:10 000

(14) Size of Sheet (Check one) 36x60 [X] 42x60 [ ]

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



Grid Limits

(16) Greatest Latitude 55° 51' 00" (Projection Line Interval Page 4 Hydro Manual)

(17) Lowest Latitude 55° 47' 30"

(18) Difference 3' 30" (19) 30

(20) 07 X

(21) Greatest Longitude 132° 13' 00"

(22) Lowest Longitude 132° 01' 00" (24) 30

(23) Difference 12' 00" (25) 24 X

H - H 10011
Field
Date

PARAMETER CARD II

Semi major axis of the earth	6.378,206.4	RDA	6 3 7 8 2 0 6 4 0 7
X Constant- Distance from central meridian to origin of plotter SP 5	meters	XXN	7 3 2 0 1 9 0 0 0 4
Y Constant - Distance from equator to origin of plotter SP 24	meters	YYN	6 1 8 4 2 2 5 0 0 7
Central Meridian of Projection	132 01 30	CMR	4 7 5 6 2 0 0 0 0 6
Plotter Scale/Survey Scale	*30498.6576 1:10,000	SCA	1 0 4 9 7 6 7 9 0 1
North/south axis of sheet - to correspond to (Y axis - 0) (X axis - 1) of plotter		NYX	0
Feet/Fathom indicator	0 - feet 1 - fathom	FOT	1
H Identification No.		JN	0 9 2 8 7
		JB	7 2

FOF - 1

PARAMETER CARD III

Lowest Lat. Intersection	55 47 30	YST	2 0 0 7 5 0 0 0 0 6
Lowest Long. Intersection	132 01 00	XST	4 7 5 2 6 0 0 0 0 6
Difference between Grid	30	DXI	3 0 0 0 0 0 5 0 0 2
Interval (Long)		XSN	2 4
Interval (Lat)		YSN	0 7

Computed
Punched
Checkdd
Date

ASCII Signal Type Printout

FA 10-38 72

001 55 50 2160 132 05 3367
002 55 50 4462 132 05 3436
003 55 50 3469 132 05 1103
004 55 50 1503 132 05 2350
005 55 50 0527 132 05 1775
006 55 49 5642 132 05 0000
007 55 49 4902 132 04 2297
008 55 49 4035 132 04 0000
009 55 49 4190 132 03 3342
010 55 49 2981 132 03 2986
011 55 49 3072 132 03 1528
012 55 49 1740 132 03 2739
013 55 48 5400 132 03 3857
014 55 48 3531 132 02 5269
015 55 48 2541 132 02 3559
016 55 48 0660 132 01 4150
022 55 47 5413 132 01 5543
023 55 48 0301 132 02 3174
024 55 48 0398 132 03 0930
025 55 48 1720 132 03 4345
026 55 48 2942 132 04 0631
027 55 48 3912 132 04 3714
028 55 48 3159 132 05 1751
029 55 48 4093 132 05 4030
030 55 48 4048 132 06 2061
031 55 48 4291 132 06 3674
032 55 48 4287 132 07 1205
034 55 49 0857 132 05 0029
035 55 49 0970 132 05 0764
036 55 49 0398 132 05 0993

List of Signals
FA 10-3A-72

033	55	48	4227	132	07	1375
050	55	48	3589	132	08	0316
051	55	48	3172	132	08	2474
052	55	48	2499	132	08	4294
053	55	48	0889	132	09	1831
054	55	48	0731	132	09	3048
055	55	48	0323	132	09	4276
056	55	47	5332	132	09	4068
057	55	48	0042	132	09	5034
058	55	48	0091	132	09	5585
059	55	47	5956	132	09	5789
060	55	48	0294	132	10	1435
061	55	47	5177	132	10	2226
062	55	47	4653	132	10	1434
063	55	47	4847	132	10	0063
064	55	47	4553	132	09	5984
065	55	47	4947	132	09	4516
066	55	48	1280	132	10	1849
067	55	48	1898	132	10	3622
068	55	48	1620	132	10	5047
069	55	48	1112	132	11	0396
070	55	47	4692	132	11	3173
098	55	48	0812	132	09	5109

FORM C&GS-733M (6-66) FA 10-3B-72

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMME
E
COAST AND GEODETIC SUR

VESSEL	PROJ. NO.	YEAR	CHECKED BY	DATE CHECKED
FA-5	OPR-465	1972	B.W	8-20-72

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, dente cutter, stat. no., type of bottom relief i.e. slope, plain, disposition, etc.)
7338	30 MARCH '72	55°48'09"	132°02'18"	6.8				dk	S	ALL SAMPLES TAKEN WITH MUD SAMPLER.
7339	"	55°48'35"	132°03'29"	16.2				dk	S	
7340	"	55°48'48"	132°04'44"	16.9				dk	S	
7342	"	55°49'20"	132°04'25"	18.9				dk	Rk, gn S	
7343	"	55°49'04"	132°05'44"	26.7				lt	P, S, Sh	
7344	"	55°49'34"	132°05'42"	17.9				bk	Rk	
7345	"	55°50'12"	132°06'08"	22.2				bk	S, P	

Use more than one line per sample if necessary.

USCOMM-DC

Category I
no priority

1/30/74

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Pacific Marine Center

Hourly heights are approved for Form 362

Tide Station Used (NOAA Form 77-12): Vixen Pt.
Union Bay

Period: 16 March - 10 May 1972

HYDROGRAPHIC SHEET: H-9287

OPR: 465

Locality: Ernest Sound, Alaska

Plane of reference (mean lower low water): Vixen Pt. 3.9 ft.
Union Bay 6.0 ft.

Height of Mean High Water above Plane of Reference is 15.0 ft.

Remarks: Zone: Apply heights from either gage depending upon times of Hydrography.

C. A. Harding
Chief, Tides Branch

FAIRWEATHER
FA-10-2-72, FA-10-3-72, FA-20-1-72
H-9286, H-9287, H-9288
TIME MERIDIAN - 120 WEST
YEAR - 1972
CORRECTIONS IN FATHOMS
TIDE GAGE AT VIXEN INLET
MLLW CORRECTION - 03.9 FEET
TIME SHIFT - ZERO
RANGE RATIO - 01.00

Reviewer - file
tide printout with
sdg printouts

090500 00 1006 0000 080 0 090000 000000
091600 00 1005
092700 00 1004
093900 00 1003
095200 00 1002
100700 00 1001
102700 00 1000
110000 00 0001
 2100 00 0002
120200 00 0001
122500 00 1000
124300 00 1001
125600 00 1002
131100 00 1003
132200 00 1004
133300 00 1005
134400 00 1006
135400 00 1007
140500 00 1008
141500 00 1009
142600 00 1010
143700 00 1011
144700 00 1012
145800 00 1013
151000 00 1014
152200 00 1015
153400 00 1016
154800 00 1017
160300 00 1018
162000 00 1019
164200 00 1020
173400 00 1021
173500 00 1022
 2100 00 1021
185500 00 1020
190000 00 1019
080000 00 1019 0000 081 0 080000 000000
081300 00 1018
082600 00 1017
083800 00 1016

084900 00 1015
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091100 00 1013
092100 00 1012
093100 00 1011
094200 00 1010
095200 00 1009
100300 00 1008
101500 00 1007
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104100 00 1005
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125600 00 1001
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190000 00 1019
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060000 00 1023
074500 00 1024
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084900 00 1021
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115100 00 1007
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103600 00 1018
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110300 00 1016
111600 00 1015
112900 00 1014
114200 00 1013
115400 00 1012
  700 00 1011
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130900 00 1007
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151400 00 1003
161200 00 1004
163800 00 1005
170000 00 1006
171900 00 1007
173700 00 1008
175400 00 1009
181100 00 1010
182600 00 1011
184200 00 1012
185800 00 1013
190000 00 1014
072600 00 1018 0000 004 0 070000 000000
074600 00 1019
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083700 00 1021
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133300 00 1010
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140100 00 1008
141500 00 1007
143000 00 1006
144600 00 1005
150000 00 1004
040000 00 1011 0000 088 0 040000 000000
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042600 00 1008
043500 00 1007
044400 00 1006
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063200 00 1000
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073500 00 1000
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081000 00 1002
082300 00 1003
083500 00 1004
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085600 00 1006
090600 00 1007
091600 00 1008
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173000 00 1004
174100 00 1003
175400 00 1002
1  000 00 1001
050000 00 1009 0000 089 0 050000 000000
050800 00 1008
051700 00 1007
052600 00 1006
053600 00 1005
054600 00 1004
055700 00 1003
061000 00 1002
062500 00 1001
064500 00 1000
080800 00 0001
082800 00 1000
084400 00 1001
085800 00 1002
091000 00 1003
092100 00 1004
093200 00 1005
094200 00 1006
095200 00 1007
100100 00 1008
101100 00 1009
102100 00 1010
103000 00 1011
104000 00 1012
1  000 00 1013
110000 00 1014
110900 00 1015
112000 00 1016
113000 00 1017
114100 00 1018
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124800 00 1023
131000 00 1024
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160900 00 1017
161800 00 1016
162700 00 1015
163500 00 1014
164300 00 1013
165200 00 1012
170000 00 1011
060200 00 1005 0000 090 0 060000 000000
061300 00 1004
062400 00 1003
063600 00 1002
[illegible]000 00 1001
[illegible]800 00 1000
083800 00 0001
085800 00 1000
091400 00 1001
092800 00 1002
094100 00 1003
095300 00 1004
100400 00 1005
101300 00 1006
102300 00 1007
103200 00 1008
104100 00 1009
105000 00 1010
105900 00 1011
110900 00 1012
111900 00 1013
112800 00 1014
113800 00 1015
114800 00 1016
115900 00 1017
120900 00 1018
121900 00 1019
123000 00 1020
124200 00 1021
[illegible]500 00 1022
[illegible]100 00 1023
133200 00 1024
150200 00 1025
152300 00 1024
```

```
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155300 00 1022
160500 00 1021
161600 00 1020
162600 00 1019
163600 00 1018
164600 00 1017
165500 00 1016
170000 00 1015
060500 00 1009 0000 091 0 060000 000000
061400 00 1008
062300 00 1007
063300 00 1006
064300 00 1005
065400 00 1004
070600 00 1003
072000 00 1002
073600 00 1001
080000 00 1000
085900 00 0001
092400 00 1000
094100 00 1001
095500 00 1002
100800 00 1003
102000 00 1004
103100 00 1005
104100 00 1006
105200 00 1007
110100 00 1008
111100 00 1009
112100 00 1010
113100 00 1011
114000 00 1012
115000 00 1013
120000 00 1014
120900 00 1015
121900 00 1016
122900 00 1017
124000 00 1018
125000 00 1019
130200 00 1020
131400 00 1021
132800 00 1022
134400 00 1023
140000 00 1024
091100 00 1002 0000 094 0 090000 000000
094400 00 1001
103000 00 1000
110500 00 1001
112600 00 1002
114400 00 1003
120000 00 1004
121400 00 1005
122700 00 1006
124000 00 1007
```

```
 200 00 1008
130400 00 1009
131600 00 1010
132800 00 1011
134000 00 1012
135200 00 1013
140500 00 1014
141800 00 1015
143100 00 1016
144600 00 1017
150300 00 1018
152600 00 1019
160000 00 1020
170400 00 1021
173700 00 1020
180000 00 1019
060600 00 1021 0000 095 0 060000 000000
061900 00 1020
063200 00 1019
064400 00 1018
065500 00 1017
070600 00 1016
071700 00 1015
072900 00 1014
074000 00 1013
 100 00 1012
080300 00 1011
081500 00 1010
082800 00 1009
084200 00 1008
085600 00 1007
091300 00 1006
093300 00 1005
100000 00 1004
113300 00 1003
120400 00 1004
122500 00 1005
124200 00 1006
125800 00 1007
131300 00 1008
132700 00 1009
134100 00 1010
135500 00 1011
141000 00 1012
142500 00 1013
144100 00 1014
145800 00 1015
151400 00 1016
153200 00 1017
155300 00 1018
 200 00 1019
160300 00 1020
183700 00 1019
190000 00 1018
070000 00 1019 0000 096 0 070000 000000
```

```
071500 00 1018
073100 00 1017
074600 00 1016
080100 00 1015
081800 00 1014
083500 00 1013
085300 00 1012
090900 00 1011
092500 00 1010
094100 00 1009
100000 00 1008
102300 00 1007
110000 00 1006
115900 00 1005
124200 00 1006
131000 00 1007
133300 00 1008
135400 00 1009
141300 00 1010
143200 00 1011
145000 00 1012
150900 00 1013
152800 00 1014
[illegible]900 00 1015
161200 00 1016
164100 00 1017
172300 00 1018
190000 00 1018
091400 00 1014 0000 097 0 090000 000000
093200 00 1013
095000 00 1012
100800 00 1011
102600 00 1010
104500 00 1009
110600 00 1008
113300 00 1007
123400 00 1006
123900 00 1005
134900 00 1006
142100 00 1007
144700 00 1008
151200 00 1009
153500 00 1010
155700 00 1011
161900 00 1012
164100 00 1013
170400 00 1014
172900 00 1015
[illegible]600 00 1016
[illegible]000 00 1017
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075900 00 1020
083500 00 1019
090200 00 1018
092800 00 1017
```

```
000 00 1016
100800 00 1015
102300 00 1014
103800 00 1013
105300 00 1012
111000 00 1011
112700 00 1010
114600 00 1009
120500 00 1008
122400 00 1007
124600 00 1006
132500 00 1005
143000 00 1004
152000 00 1005
155100 00 1006
160000 00 1007
092300 00 1020 0000 101 0 090000 000000
094100 00 1021
100600 00 1022
113100 00 1023
120000 00 1022
121700 00 1021
123200 00 1020
124500 00 1019
125700 00 1018
 900 00 1017
132000 00 1016
133100 00 1015
134200 00 1014
135200 00 1013
140300 00 1012
141300 00 1011
142400 00 1010
143500 00 1009
144600 00 1008
145700 00 1007
150900 00 1006
152200 00 1005
153600 00 1004
155200 00 1003
160000 00 1002
030000 00 1011 0000 102 0 030000 000000
031000 00 1010
032000 00 1009
033100 00 1008
034200 00 1007
035300 00 1006
040600 00 1005
042100 00 1004
043800 00 1003
 400 00 1002
 500 00 1001
062200 00 1002
064000 00 1003
065500 00 1004
```

```
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072200 00 1006
073400 00 1007
074500 00 1008
075600 00 1009
080600 00 1010
081600 00 1011
082600 00 1012
083500 00 1013
084500 00 1014
085500 00 1015
090500 00 1016
091500 00 1017
092600 00 1018
093800 00 1019
095000 00 1020
100200 00 1021
101500 00 1022
103000 00 1023
104700 00 1024
111200 00 1025
121500 00 1026
124200 00 1025
130000 00 1024
130300 00 1023
132400 00 1022
133500 00 1021
134500 00 1020
135500 00 1019
140400 00 1018
141300 00 1017
142200 00 1016
143100 00 1015
144000 00 1014
144900 00 1013
145800 00 1012
150700 00 1011
151600 00 1010
152500 00 1009
153500 00 1008
154500 00 1007
155500 00 1006
160600 00 1005
161800 00 1004
163200 00 1003
164700 00 1002
170600 00 1001
183900 00 1000
185800 00 1001
190000 00 1002
192000 00 0001 0000 103 0 070000 000000
073400 00 1000
074700 00 1001
075800 00 1002
080900 00 1003
```

900 00 1004
082800 00 1005
083700 00 1006
084600 00 1007
085400 00 1008
090300 00 1009
091100 00 1010
092000 00 1011
092900 00 1012
093700 00 1013
094600 00 1014
095400 00 1015
100300 00 1016
101200 00 1017
102000 00 1018
102900 00 1019
103900 00 1020
104900 00 1021
110000 00 1022
111200 00 1023
112700 00 1024
114500 00 1025
121400 00 1026
130000 00 1027
132400 00 1026
100 00 1025
[illegible]500 00 1024
140600 00 1023
141700 00 1022
142700 00 1021
143600 00 1020
144500 00 1019
145400 00 1018
150200 00 1017
151000 00 1016
151800 00 1015
152600 00 1014
153300 00 1013
154100 00 1012
154900 00 1011
155600 00 1010
160400 00 1009
161200 00 1008
162100 00 1007
162900 00 1006
163800 00 1005
164700 00 1004
165700 00 1003
170900 00 1002
172200 00 1001
700 00 1000
[illegible]000 00 0001
185300 00 0002
190000 00 0001
050200 00 1003 0000 104 0 050000 000000

051000 00 1002
051900 00 1001
052800 00 1000
053800 00 0001
054900 00 0002
060200 00 0003
062000 00 0004
070000 00 0005
073600 00 0005
075400 00 0004
080700 00 0003
081900 00 0002
083000 00 0001
084000 00 1000
085000 00 1001
085900 00 1002
090700 00 1003
091600 00 1004
092400 00 1005
093200 00 1006
093900 00 1007
094700 00 1008
095500 00 1009
100300 00 1010
000 00 1011
101800 00 1012
102500 00 1013
103300 00 1014
104100 00 1015
104900 00 1016
105700 00 1017
110500 00 1018
111400 00 1019
112300 00 1020
113200 00 1021
114200 00 1022
115300 00 1023
120400 00 1024
121800 00 1025
123500 00 1026
130000 00 1027
134400 00 1028
140900 00 1027
142500 00 1026
143800 00 1025
144900 00 1024
150000 00 1023
150900 00 1022
151800 00 1021
600 00 1020
3500 00 1019
154300 00 1018
155000 00 1017
155800 00 1016
160500 00 1015

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162700	00	1012		7
163400	00	1011		7
164100	00	1010		7
164900	00	1009		7
165600	00	1008		7
170000	00	1007		7
050100	00	1008	0000 105 0 050000 000000	7
050800	00	1007		7
051400	00	1006		7
052100	00	1005		7
052800	00	1004		7
053500	00	1003		7
054200	00	1002		7
054900	00	1001		7
055700	00	1000		7
060500	00	0001		7
061300	00	0002		7
062200	00	0003		7
063200	00	0004		7
064400	00	0005		7
070000	00	0006		7
073000	00	0007		7
080700	00	0006		7
[illegible]4600	00	0005		7
[illegible]0300	00	0004		7
091400	00	0003		7
092400	00	0002		7
093300	00	0001		7
094100	00	1000		7
094900	00	1001		7
095700	00	1002		7
100500	00	1003		7
101300	00	1004		7
102000	00	1005		7
102800	00	1006		7
103500	00	1007		7
104300	00	1008		7
105000	00	1009		7
105700	00	1010		7
110500	00	1011		
111200	00	1012		
111900	00	1013		
112600	00	1014		
113400	00	1015		
114200	00	1016		
114900	00	1017		
115700	00	1018		
120500	00	1019		
[illegible]1400	00	1020		
[illegible]2200	00	1021		
123100	00	1022		
124100	00	1023		
125200	00	1024		

```
130500 00 1025
132200 00 1026
135300 00 1027
142600 00 1028
145600 00 1027
151200 00 1026
152400 00 1025
153600 00 1024
154600 00 1023
155500 00 1022
160000 00 1021
100000 00 0006 0000 108 0 100000 000000
100100 00 0007
104500 00 0006
110500 00 0005
112200 00 0004
113600 00 0003
114800 00 0002
120000 00 0001
121000 00 1000
121900 00 1001
122800 00 1002
123700 00 1003
124600 00 1004
  5400 00 1005
130300 00 1006
131100 00 1007
131900 00 1008
132700 00 1009
133600 00 1010
134400 00 1011
135300 00 1012
140100 00 1013
141100 00 1014
142000 00 1015
143000 00 1016
144100 00 1017
145200 00 1018
150500 00 1019
151900 00 1020
153600 00 1021
160000 00 1022
170300 00 1023
172700 00 1022
174600 00 1021
180000 00 1020
031600 00 1019 0000 110 0 030000 000000
033400 00 1020
035300 00 1021
  1500 00 1022
044600 00 1023
055900 00 1024
062600 00 1023
064500 00 1022
070100 00 1021
```

```
0[illegible]500 00 1020
0 .700 00 1019
073900 00 1018
075000 00 1017
080100 00 1016
081100 00 1015
082100 00 1014
083100 00 1013
084100 00 1012
085100 00 1011
090100 00 1010
091100 00 1009
092100 00 1008
093200 00 1007
094300 00 1006
095500 00 1005
100600 00 1004
101800 00 1003
103100 00 1002
104600 00 1001
110400 00 1000
114300 00 0001
130000 00 0001
132000 00 1000
133700 00 1001
135200 00 1002
 700 00 1003
142000 00 1004
143400 00 1005
144700 00 1006
150000 00 1007
151200 00 1008
152400 00 1009
153700 00 1010
154900 00 1011
160200 00 1012
161500 00 1013
162900 00 1014
164400 00 1015
170000 00 1016
171800 00 1017
174200 00 1018
180000 00 1019
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065600 00 1019
082800 00 1020
090000 00 1019
092300 00 1018
 200 00 1017
100000 00 1016
101400 00 1015
102800 00 1014
```

```
104100 00 1013
105400 00 1012
110700 00 1011
112000 00 1010
113300 00 1009
114700 00 1008
120100 00 1007
121800 00 1006
123700 00 1005
130000 00 1004
091300 00 1017 0000 115 0 090000 000000
092800 00 1018
094500 00 1019
100400 00 1020
103000 00 1021
115900 00 1022
122500 00 1021
124400 00 1020
130000 00 1019
131300 00 1018
132500 00 1017
133800 00 1016
134900 00 1015
 0100 00 1014
 1200 00 1013
142400 00 1012
143600 00 1011
144800 00 1010
150100 00 1009
151400 00 1008
152700 00 1007
154200 00 1006
160000 00 1005
080800 00 1007 0000 116 0 080000 000000
082000 00 1008
083100 00 1009
084300 00 1010
085400 00 1011
090500 00 1012
091700 00 1013
092800 00 1014
094000 00 1015
095300 00 1016
100700 00 1017
102200 00 1018
103900 00 1019
110000 00 1020
113300 00 1021
 3500 00 1022
 0600 00 1021
132500 00 1020
134000 00 1019
135400 00 1018
140700 00 1017
141900 00 1016
```

143100 00 1015
144300 00 1014
145400 00 1013
150500 00 1012
151600 00 1011
152700 00 1010
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155100 00 1008
160400 00 1007
161800 00 1006
163500 00 1005
165500 00 1004

Velocity Corrector Tape Printout

FA 10-3-72

OPR-465

H-7287

```
ØØ139Ø Ø ØØØØ ØØØ1 ØØ1 2Ø2ØØØ Ø09287
ØØ235Ø Ø ØØ1Ø
```

SINGLE INDICATOR
TRA CORRECTO[illegible]E (TC/TI) PRINTOUT
FA 10-3B. LAUNCH FA-5
DAYS 080-84; 89-091

```
123000  1  0000  0001  030  000000  000000
152415  1  0001
154000  1  0000
160645  1  0001
103600  1  0000  0001  031  000000  000000
110930  1  0001
084730  1  0001  0001  032  000000  000000
090000  1  0001  0001  033  000000  000000
090000  1  0001  0001  034  000000  000000
095000  1  0001  0001  038  000000  000000
130530  1  0001  0001  039  000000  000000
084230  1  0001  0001  035  000000  000000
084030  1  0001  0001  091  000000  000000
```

SINGLE INDICATOR
TRA CORRECTOR (TC/TI) PRINTOUT
FA 10-3A-72 LAUNCH FA-5
DAYS: 091, 094, 095, 098, 101, 102

```
1C5000 1 0000 0001 091 000000 000000
080000 1 0000 0001 094 000000 000000
083830 1 FC01 0001 095 000000 C00000
083645 1 0001 0001 098 000000 C0001C
110015 1 0001 0001 101 000000 00C000
082C30 1 0001 0001 102 000000 000000
```

APPROVAL SHEET

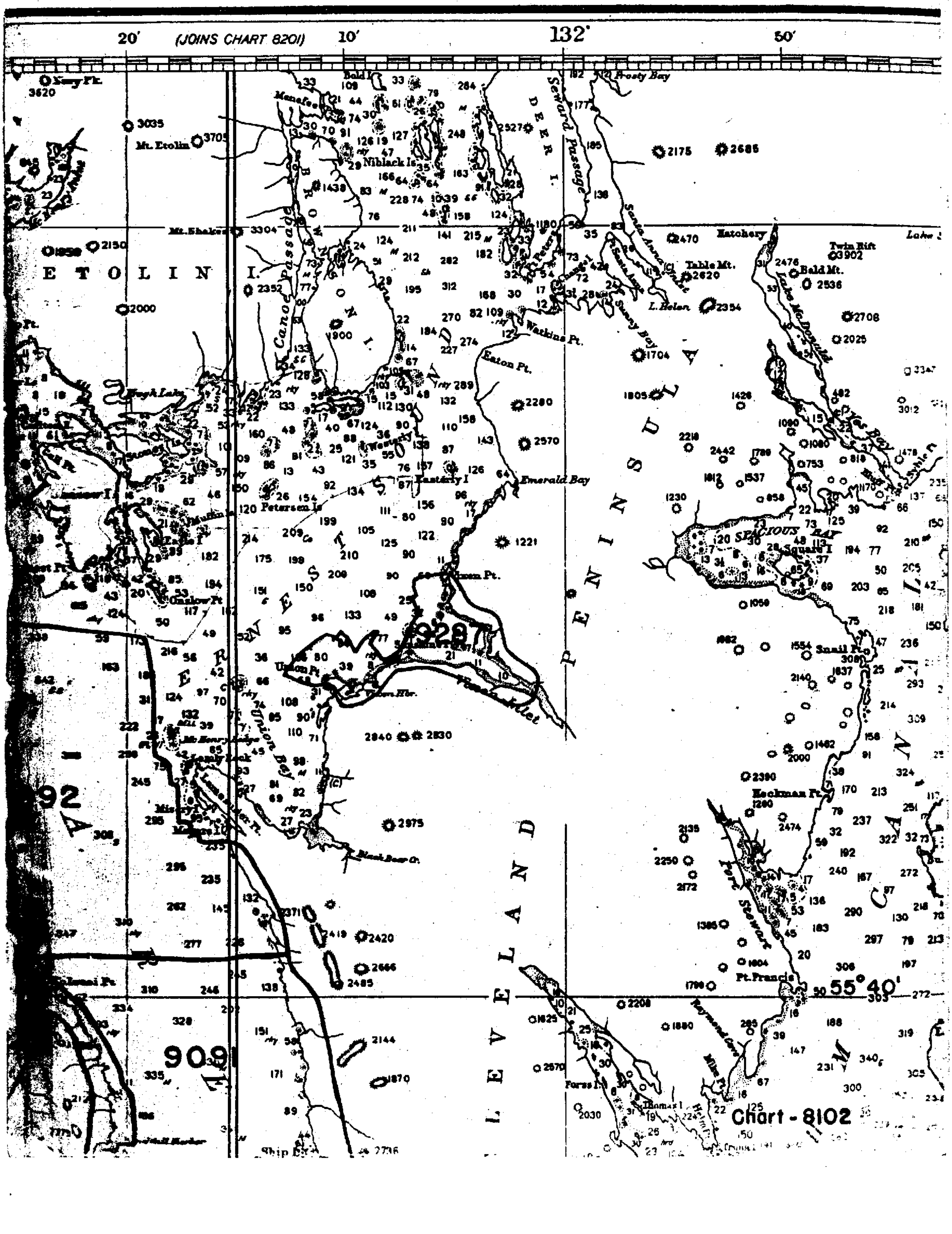
The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report)

Examined and approved,

James S. Green
Supervisory Cartographic Technician

Approved and forwarded,

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



(JOINS CHART 8201)
20'
10'
132°
50'
ETOLIN I.
Mt. Etolin
Mt. Shakes
Niblack Is.
Canoe Passage
Seward Passage
DEER I.
Watkins Pt.
Eaton Pt.
Emerald Bay
Petersen Is.
Onslow Pt.
Union Pt.
Union Bay
Hatchery
Twin Rift
Table Mt.
Bald Mt.
L. Helen
SPACIOUS BAY
Square I.
Snail Pt.
Port Stewart
Pt. Francis
Raymond Cove
Hecksman Pt.
CLEVELAND PENINSULA
55° 40'
Chart - 8102

H-9287

Cht. 8161 - ~~[illegible]~~ 12-11-74 H.J. Borawski — App'd misc. corr. before review

Cht. 8102 7/18/75 H.J. Borawski — Part app'd after verification thru Cht. 8161 Dwg. #4

8201 11/75 Raitoff part after verification thru 8102, 8161.

8124 11/11/76 H.J. Borawski — Part app'd after Verification

8201 3-14-77 M. Sayer — Examined - No critical corrections after verification.

Chart 8161 4-11-77 M. Sayer — Fully Applied After Verification.