

9285

Diag. Cht. No. 8102-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey HYDROGRAPHY
Field No. FA-10-1-72
Office No..... H-9285

LOCALITY

State ALASKA
General Locality .. ERNEST SOUND
Locality ONSLOW PT. TO ETOLIN ISLAND

1972

CHIEF OF PARTY
R.H. Houlder

LIBRARY & ARCHIVES

DATE September 16, 1974

9285

1

HYDROGRAPHIC TITLE SHEET

H-9285

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-10-1-72

State Alaska.

General locality Ernest Sound
~~Southeast Alaska~~

Locality Onslow Pt. to Etolin Island
~~Ernest Sound~~

Scale 1:10,000 Date of survey ~~20~~²⁴ March - 24 May 1972

Instructions dated 28 February 1972 Project No. OPR 465

Vessel Launches FA-4, FA-5, and AR-1

Chief of party CAPT R. H. Houlder
CAPT R. H. Houlder, CDR S. C. Miller, LT D. E. Nortrup, LT M. C. Grunthal

Surveyed by LT N. B. Bodnar, Jr., LT T. Ballentine, LT (jg) E. G. Wood, LT (jg) F. B. Arbusto, Jr., LT (jg) T. R. Crane, LT (jg) Underwood, ENS R. J. Schmidt

Soundings taken by echo sounder, hand lead, pole

Graphic record scaled by Ship's Personnel

Graphic record checked by "

Protracted by _____ Automated plot by PMC Gerber
Ship's Personnel
Digital Plotter

Soundings penciled by _____

Soundings in fathoms ^{and tenths} 1 ~~feet~~ at MLW MLLW

REMARKS: Miscellaneous items removed from Descriptive Report and have been filed with the field records.

Applied to stds 11-25-74
CSB

R.W.W. 4-15-91

COMPUTER BOARD LAYOUT

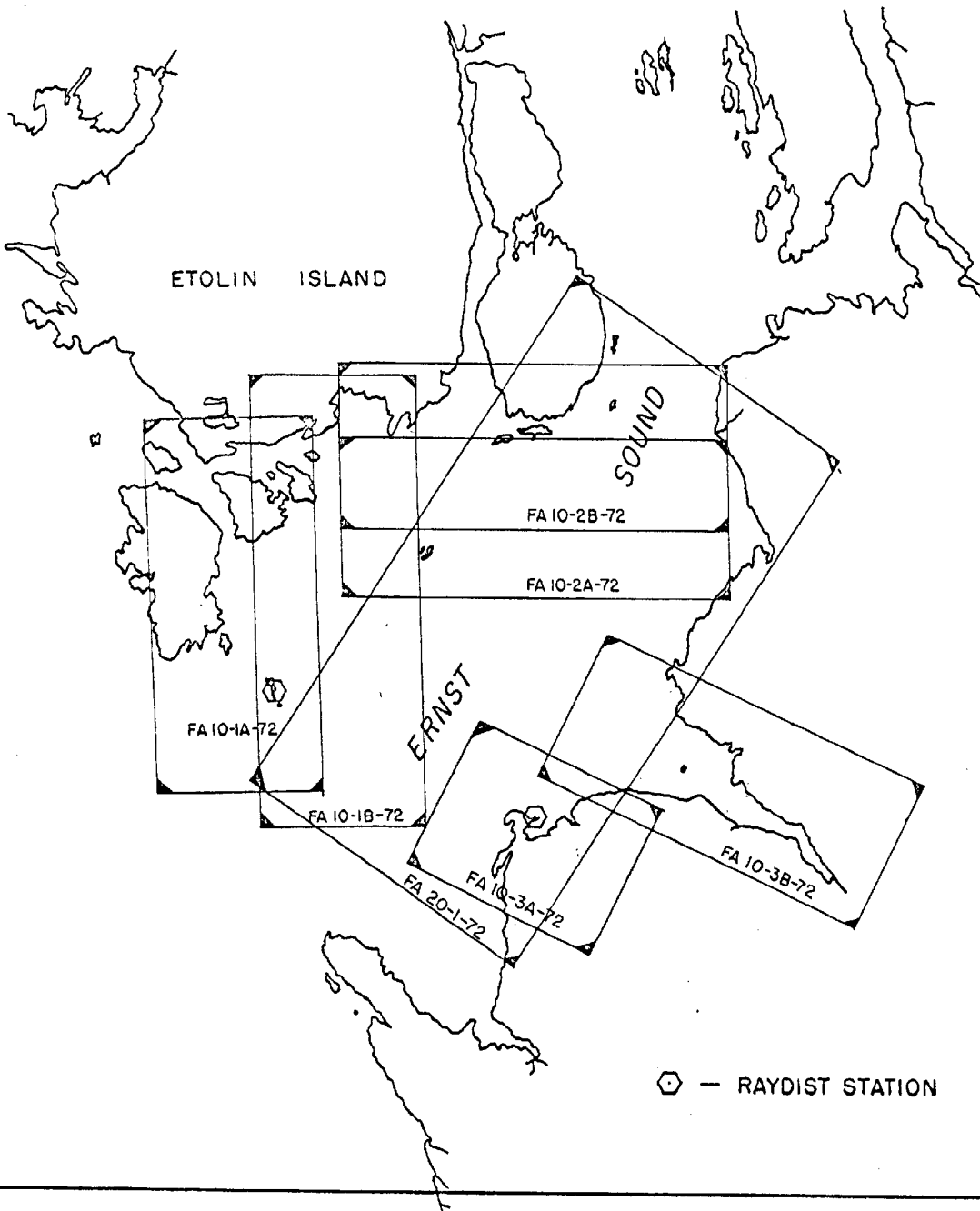
OPR - 465

ERNEST SOUND, S.E. ALASKA

NOAA SHIP FAIRWEATHER.

CAPT. R. H. HOULDER CMDG

SCALE OF C&GS CHART 8102



DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-9285 (FIELD NO. FA-10-1-72)
OPR 465, ERNEST SOUND, ALASKA
NOAA SHIP FAIRWEATHER (MSS 20)
CAPT R. H. HOULDER, COMDG.

A. PROJECT

The survey was accomplished under Project Instructions OPR 465, Clarence Strait and Ernest Sound, Southeast Alaska, project instructions dated 28 February 1972, and PMC OORDER. ✓

B. AREA SURVEYED

The area surveyed includes the channels between Carlton Island and Etolin Island, Etolin Island and Stones Islands, Stones Islands and Onslow Island, and Onslow Island and Eagle Island. The eastern boundary is the junction with FA-20-1-72 and FA-10-2-72 along approximate longitude 132° 16' West. The northern boundary is Dewey Anchorage, where a junction with PF-10-2-71(H-9192) is made and the southern boundary is one mile south of Eagle Island, where a junction with PF-20-1-71(H-9194) is made. Prior surveys of this area are H-3942-1916, H-4271-1922 and H-4250-1922. The control was established at various times throughout the field season from 20 March 1972 to 19 May 1972 and hydrography was run from 24 March 1972 to 24 May 1972. ✓

C. SOUNDING VESSEL

Launches FA-4 and FA-5 were used to obtain soundings for this survey. Launch AR-1 was used to obtain bottom samples. No boat sheet colors are specified for launches as computer sheets will be re-plotted in black ink exclusively. Position number designation is as follows:

Launch FA-4	4001-5789 & 7104-7341
Launch FA-5	6001-7103 & 8001-8077
Launch AR-1	2001-2024

 ✓

D. SOUNDING EQUIPMENT

Echo soundings on FA-4 and FA-5 were obtained using the Ross 400A and Raytheon DE-723 fathometers, respectively. Serial numbers are as follows: FA-4, none assigned; FA-5, 558 ✓

Sound velocity corrections were obtained from two nansen casts and TRA. Corrections were obtained from daily bar checks. The Fathometer and Velocity Correction Report covers these in greater detail. In addition, an abstract of the TRA and velocity corrections is included with this report. ✓

E. SMOOTH SHEET

The position and sounding data were logged by ship's personnel, plotted by the PDP-8E computer, discrepancies rectified, and re-plotted. The smooth sheet will be plotted by PMC ~~or~~ AMC. ✓

F. CONTROL

For visual control, signals were constructed on either triangulation stations or positions located by photogrammetric methods. Photo-hydro signals were transferred to the boat sheet from incomplete manuscripts (1:10,000 scale) T-12367, T-12368, T-12370 and T-12371. ✓

The majority of hydrography run on computer sheet FA-10-1B-72 was accomplished with Raydist control. The red station was installed at Union Pt. and located by third order triangulation. The green station was located on triangulation station "Slow 1966". A more fully detailed Raydist note is included with this report. ✓

G. SHORELINE

The sources of shoreline detail are those mentioned in section F. The transfer of shoreline detail was made and verified prior to hydrography. Any changes have been noted on the boat sheet. The dashed lines offshore are the approximate limits of ledges and foul areas as indicated. ✓

Incomplete manuscripts T-12368 and T-12371 were field edited during the project. ✓

H. CROSSLINES

Crosslines, constituting approximately 15% of the sounding lines, were in good agreement. ✓

I. JUNCTIONS

All of the junctions listed in Section B of this report were found to be in good agreement. ✓

J. COMPARISON WITH PRIOR SURVEYS

Comparisons were made with prior surveys H-3942-1916, H-4271-1922 and H-4250-1922. All of these surveys are 1:20,000 scale. Soundings, in general, were in good agreement. Extensive shoal areas and their highest point have been located by sextant fixes and recorded in the sounding volume, as well as any new rocks found. ✓

Special attention should be given to the ^{* 6 (smooth sdg)} 3.4 fathom sounding located in Latitude 55° 51' ^{58.5} 58" N, Longitude 132° 16' ³⁹ 35" W. An additional computer sheet will be included with FA-10-1-72⁷ showing further development. ✓

(2) * lesser 33 depth carried forward from prior survey. See Review page 5b. Same as item 8 next page

ITEM NO.

PRE-SURVEY REVIEW ITEMS

THIS SURVEY

	Depth (Fms.)	Position	Depth (Fms.)	Position	
DSR ITEM #15 1. (8161) (Wreck)	Exposed 8161 OPR 465	55° 54' 36" N 132° 19' 08.4" W (Elevation 10.6 ft.)	0.8	Same	concur remain charted - Delete P.A.
2. (8161)	0.5	55° 54' 48" N 132° 19' 10" W	4.2 0.2	Same	recommend 0.2' be plotted on chart
3. (8161)	7.0	55° 55' 12" N 132° 16' 55" W	6.6 (lesser depth 4.4 to the west of 6.6)	Same	see above depth 4.4 to the west of 6.6
4. (8161)	16.0	55° 55' 03" N 132° 16' 55" W	14.8	Same	chart Present survey depth 55° 55' 02" N 132° 16' 58" W revised presently charted
5. (8161)	0.5	55° 54' 36" N 132° 17' 12" W	0.6 rock awash	Same	55° 54' 36" N 132° 17' 12" N recommend charting
6. (8161)	1.75 (4270)	55° 53' 45" N 132° 16' 39" W	3.57 0.89	Same	reel plotted on 500' by 20 meters 500'
7. (8161)	42.0 (Not charted)	55° 53' 03" N 132° 16' 20" W	40.0 44.0	Same	55° 53' 48" N 132° 16' 43" W delete 1/4 from chart verified by 55° 53' 02.5" N present 132° 16' 25" W survey delete charted 46 29
8. (8161)	3.25 from H-3935 (194) WA	55° 51' 57" N 132° 16' 36" W	3.86 Same as item discussed last par. of previous page (2)	Same	55° 51' 58.5" N 132° 16' 39" W 3.25 as charted retain
9. (8161)	3.75	55° 52' 51" N 132° 20' 09" W	6.0 5.6	Same	recommend charting 48.5' at new G.P.
10. (8161)	5.75	55° 52' 43" N 132° 20' 07" W	3.84 3.5	Same	55° 52' 52.5" N 132° 20' 20.8" W 10.4'
11. (8161)	3.25	55° 52' 48" N 132° 18' 39" W	5.24 4.1 (Lat. 55° 52' 41.7" Long 132° 20' 10.3")	Same	55° 52' 47.5" N 132° 18' 40.5" W 55° 52' 48" N 47.5" N 132° 18' 33" W 3 ³ brought forward from H-4250 Revise charted position
12.	2.25	55° 52' 24" N 132° 17' 15" W	0.87	Same	55° 52' 26" N 132° 17' 18" W 0.7 recommend charting
13.	7.5	55° 51' 19" N 132° 19' 54" W	6.74	Same	recommend charting 6.4
14.	20.0	55° 50' 33" N 132° 19' 37" W	20.4	Same	55° 50' 33" N 132° 19' 39" W
			6.88	Same	55° 50' 38" N 132° 19' 32" W 38 38 recommend charting

see OPR-465, chart 8124, item #7 Pre Survey Review.
(3) (not disposed of) see
Review par 6a(1)

- 1.* All that remains of this wreck is the keel and the engine block. *retain on chart*
- 8.* A special development of the area containing this shoal sounding was made and is included with boat sheets for FA-10-1-72. *retain as charted*

K. COMPARISON WITH CHARTS

A comparison was made with the only chart covering the area, C & GS Chart 8161, dated 12 June 1971, scale 1:80,000. The small scale of this chart precluded accurate comparison between chart and survey. *A comparison with chart 8124, dated 4 Nov 72 should have been made. (1:29,000)* ✓

L. ADEQUACY OF THE SURVEY

This survey is considered to be complete and adequate to supersede prior surveys for charting purposes. ✓

M. AIDS TO NAVIGATION

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

N. STATISTICS

	<u>Number of Positions</u>	<u>Miles of Sounding Line</u>
FA-4	2007	211.1
FA-5	1177	107.0
AR-1	24	-----

Bottom samples: 32 - Total area surveyed: 12.9 sq. mi. ✓

O. RECOMMENDATIONS

No additional work is required in the area covered by this survey. ✓

P. 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,

Frank B. Arbusto, Jr.
 Frank B. Arbusto, Jr.
 LT (jg), NOAA

VELOCITY CORRECTIONS

Velocity corrections to be applied to the soundings of sheet FA-10-1-72(H-9285) are as follows:

<u>Sounding Depths (Fms.)</u>	<u>Correction (Fms.)</u>
0.0 - 139	0.0
140 - 235	+ 1

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

LIST OF SIGNALS

ON SHEET

FA-10-1-72

176	55	50	2296	132	18	3354	TRIANGULATION STATION SLOW, 1966	RCD
177	55	51	5886	132	17	2159	TRIANGULATION STATION MUFFIN, 1916	RCD
201	55	55	2124	132	21	4940	LOCATED BY PHOTOGRAPHS, T-12367	6 LEFT
*202	55	55	1807	132	21	2884	"	T-12367
*203	55	55	0549	132	21	3011	"	"
204	55	54	5804	132	21	1347	"	"
205	55	54	4905	132	21	0961	"	"
206	55	55	0091	132	22	0138	"	"
207	55	54	4908	132	21	4023	"	"
*208	55	54	4203	132	21	3441	"	"
209	55	54	5157	132	20	4978	"	"
210	55	54	5241	132	20	3292	"	"
211	55	54	5425	132	20	1462	"	"
*212	55	54	5697	132	19	5398	"	T-12368
213	55	54	5862	132	19	5680	"	"
214	55	55	0356	132	20	1215	"	T-12367
215	55	55	1012	132	19	5826	"	T-12368
216	55	55	0905	132	19	2476	"	"
217	55	55	1035	132	18	2879	"	"
*218	55	55	1106	132	18	0282	"	"
219	55	55	3017	132	17	3310	"	"
220	55	55	1280	132	17	4848	"	"
221	55	55	1643	132	17	1560	"	"
222	55	55	3127	132	16	3846	"	"
223	55	56	0427	132	16	1930	"	"
240	55	54	3288	132	20	4264	"	T-12367
241	55	54	3628	132	20	1272	"	"
242	55	54	3641	132	19	4535	"	T-12368
243	55	54	3110	132	19	2722	"	"
244	55	54	2613	132	19	0127	"	"
245	55	54	0873	132	19	0518	"	"
*246	55	54	1090	132	18	1640	"	"
247	55	54	2823	132	18	3464	"	"
248	55	54	3382	132	18	5749	"	"
249	55	54	3793	132	18	2780	"	"
*250	55	54	4950	132	18	3706	"	"
251	55	54	4135	132	17	5945	"	"
*252	55	54	3101	132	17	2066	"	"
253	55	54	1552	132	17	1772	"	"
254	55	54	0498	132	17	1985	"	"
260	55	54	1523	132	22	0622	"	T-123367
261	55	53	5956	132	21	0794	"	"
*262	55	54	0252	132	20	3603	"	"

*- THESE SIGNALS WERE ALSO CUT IN BY SEXTANT FIXES. - POSS RCD

SEE Hydro MAN pg 206 (6-23 + 6-21)

263	55	54	0821	132	20	3441"	LOCATED BY PHOTOGRAPHS,	T-12367
264	55	54	1193	132	20	1772	"	"
265	55	53	4811	132	20	0000*	"	"
266	55	53	3599	132	20	2353	"	"
267	55	53	2558	132	19	5178*	"	"
268	55	53	1956	132	20	2393*	"	"
269	55	53	0078	132	20	2151	"	"
270	55	52	4287	132	20	2340	"	"
271	55	52	4588	132	19	2777	"	T-12368
272	55	53	1982	132	19	0316	"	"
273	55	53	3579	132	18	2146	"	"
300	55	50	2965	132	18	3688	"	T-12371
301	55	50	3550	132	18	4136	"	"
302	55	50	4501	132	18	3631	"	"
303	55	51	0330	132	19	1753	"	"
304	55	51	2832	132	19	0943	"	"
305	55	51	2978	132	18	1948	"	"
306	55	50	4488	132	20	1540	"	T-12370
307	55	50	4326	132	18	5659	"	T-12371
308	55	50	4953	132	21	4797	"	T-12370
309	55	51	1765	132	20	0828	"	"
310	55	51	2352	132	19	2588	"	T-12371
311	55	51	3938	132	20	0753	"	T-12370
312	55	51	5070	132	19	4035	"	T-12371
313	55	52	0511	132	19	5970	"	T-12370
314	55	52	2037	132	20	2116	"	"
315	55	52	3414	132	20	4196	"	T-12367
316	55	52	2509	132	20	3875	"	T-12370
317	55	52	3424	132	20	0000	"	T-12367
318	55	51	5665	132	19	0155	"	T-12371
319	55	51	5083	132	18	5351	"	"
320	55	51	4782	132	19	1420	"	"
322	55	53	5894	132	17	5378	"	T-12368
324	55	52	0194	132	19	0920	"	T-12371
325	55	52	1123	132	19	2145	"	"
326	55	51	0134	132	20	0828	"	T-12370
327	55	51	1112	132	20	3939	"	"
328	55	51	2228	132	20	2134	"	"
329	55	51	1694	132	20	1276	"	"
350	55	55	0640	132	22	3276	"	T-12367
351	55	55	5727	132	23	5769 -	"	"
352	55	55	5959	132	22	3846	"	"
390	55	52	5908	132	13	3118	TRIANGULATION STATION	WODIG, 1916

*- THESE SIGNALS WERE ALSO CUT IN BY SEXTANT FLARES.

RAYDIST NOTE

Raydist electronic positioning equipment, operating in range-range mode, was used to control hydrography on all of sheets FA-20-1-72 and FA-10-2-72 and a portion of FA-10-1-72. The "green" base station was located over triangulation station "Slow 1966" at latitude $55^{\circ} 50' 22.96''$ N, longitude $132^{\circ} 18' 33.54''$ W. The "red" base station was situated on Union Point and located by third order triangulation at latitude $55^{\circ} 48' 08.09''$ N, longitude $132^{\circ} 09' 49.61''$ W.

Base station antennas consisted of 3 sections of 10' triangular aluminum tower sections and a telescoping 30' whip. Ground planes were twelve 50' sections of 24" wide 1' mesh "chicken wire" with copper wire connectors radiating from the antenna base plate. Power to the base stations was provided by eight 12 volt batteries connected in series-parallel to yield 24 volt supply. Remote on-off switches were utilized to prolong battery life. Batteries were re-charged aboard ship and base station batteries replaced after approximately 10 days of operation.

Launches were equipped with Raydist transmitters, navigators, 12' fiberglass whip antennas, and stripchart recorders. Strip chart records were annotated at all times between beginning and end of day calibrations.

Calibration of Raydist navigators was accomplished by three-point fixes with check angle. All calibration signals were situated over triangulation stations or located by third order triangulation. Sextant fix positions were converted to Raydist lane count by PDP-8E computer using program AM-560. A calibration buoy was established off Vixen Inlet to facilitate calibration and allow whole lane calibration in periods of restricted visibility. Lane counts were also established on several natural objects in the survey area to expedite calibration.

Raydist rate calibration was generally made such that the corrector would be less than 0.10 lane. Daily correctors were determined by averaging the beginning and end of day calibrations. Occasional phase shifts did occur that could neither be explained nor accurately defined with respect to time or amount. Such shifts produced abnormally high correctors when using the averaging methods. All lane jumps were detected and proper correctors applied.

Performance of the Raydist system during this project was very good; virtually no hydro time was lost due to Raydist failure. Both base stations were installed and operable in less than one day each and removed in less than 1/2 day each. Hydro was begun on the 5th working day after the ship's arrival in the working area. Maximum range of control utilized during the survey was 8 nm. It was necessary to detune the Raydist transmitter aboard Launch AR-1 to prevent interference with the onboard computer. (See Hydrolog/Hydroplot System Status Report, OPR 465, 1972)

Base Stations - Model AA-60

Unit:	Green	Red
S/N:	15	14
Frequency:	1653.425 Khz	1653.015 Khz

Mobile Transmitters - Model TA-96

Launch:	AR-1	FA-4	FA-5
S/N:	22	34	20
Frequency:	3306.500 Khz	3306.400 Khz	3306.465 Khz

Mobile Navigators - Model Za-67A

Launch:	AR-1	FA-4	FA-5
S/N:	47	54	26
Freq. Filter Red:	470 Hz	370 Hz	435 Hz
Freq. Filter Green:	350 Hz	450 Hz	385 Hz

Lane Width - 45.315 meters

An abstract of daily Raydist rate correctors is included herewith. On any day, when the corrector on either rate for any portion of the day exceeded 0.4 lanes, a calibration record is included and the strip chart for that day is also included in the submitted field data.

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.

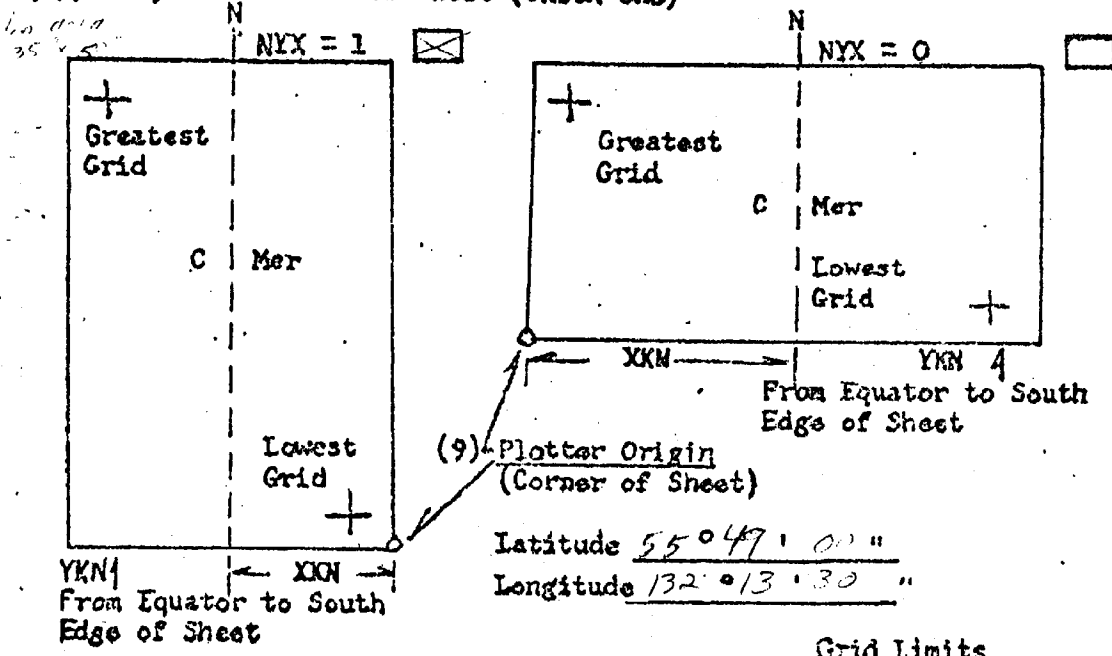


R. H. Houlder
CAPT, NOAA
Comdg., Ship FAIRWEATHER

PARAMETERS FOR DIGITAL COMPUTING
POLYCONIC PROJECTION

- (1) Project No. 012 165 (4) Requested by _____
 (2) H No. H 5005 (5) Ship or Office _____
 (3) Field No. LA 10.172 (6) Data Required _____
 (7) Visual Pt. (0) or Fathoms (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) 5204.20 Meters
 (11) YKN (SP 241) Distance from Equator to South Edge of Sheet. (Origin) 6,187,936.345 Meters
 (12) Central Meridian 132° 18' 30"
 (13) Survey Scale 1:10,000
 (14) Size of Sheet (Check one) 36x60 42x60

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



NO EXTRACT - EXPAND
OR INKING UNLESS
ORIGINS REQUESTS
AT PIMO ORIGINATION

Grid Limits	
(16) Greatest Latitude	<u>55° 56' 00"</u> (Projection Line Interval Page 4 Hydro Manual)
(17) Lowest Latitude	<u>49° 47' 30"</u>
(18) Difference	<u>6' 30"</u>
(21) Greatest Longitude	<u>132° 00' 00"</u>
(22) Lowest Longitude	<u>132° 14' 00"</u>
(23) Difference	<u>8' 30"</u>
(19)	<u>30"</u>
(20)	<u>13 YSN</u>
(24)	<u>130"</u>
(25)	<u>17 XSN</u>

COMPUTER PARAMETERS FOR ELECTRONICALLY CONTROLLED SURVEYS

(RANGE - RANGE)

- (1) Project No. OPR-465 (2) N. No. H-9285 (3) Field No. FA 10-1-72
- (4) Type of Control: SHORAN, RAYDIST, HI-FIX, RADAR
Frequency (for conversion of RAYDIST or HI-FIX lanes to meters) 3306.4
- (5) RANGE ONE (R1) ^{Red} Latitude 55 ° 48 ' 08.09 " N
Station Name UNION
(098) Longitude 132 ° 09 ' ^{49.61} ~~49.61~~ " W
- (6) RANGE TWO (R2) ^{Green} Latitude 55 ° 50 ' 22.96 " N
Station Name SLOW 1966
(099) Longitude 132 ° 18 ' ^{33.54} " W
- (7) Azimuth from R1 to R2 114 ° 37 ' ^{54.74} ~~33.54~~ "
- (8) Baseline Length in Meters 10031.056 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.)
- A (minus) x +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.

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

Time and Date limitations: From 13 Apr 0905 To 21 Apr 1052

Position Number Limitations: From 4001 4581
8001 To 8077

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

- (13) Other Remarks:

9-78-13

GEOGRAPHIC COORDINATE COMPUTATION

PROGRAM NO. 700-002

STATION A: *Union*

TO STATION B: *Stow*

LATITUDE	LONGITUDE	AZIMUTH	DISTANCE
41 50 00.0000	132 09 49.61000	F 114 37 52.73117	10031.0556
55 50 22.91000	130 15 33.54000	F 294 30 41.29004	

Field No. H 9285
FR 161112
 Date _____

STANDARD AND THE PARAMETRIC CARD

PARAMETRIC CARD II

Central Meridian of Projection	6.378,206.4	YMN	1 2 3 4 5 6 7 8 9 10
Plotter Scale/Survey Scale	1:100,000	YMN	11 12 13 14 15 16 17 18 19 20
North/South axis of sheet - to correspond to (Y axis - 0)	0 - Feet 1 - Fathom	YMN	21 22 23 24 25 26 27 28 29 30
Foot/Fathom Indicator		YMN	31 32 33 34 35 36 37 38 39 40
H Identification No.		YMN	41 42 43 44 45 46 47 48 49 50

FOR - I

PARAMETRIC CARD III

Lowest Lat. Intersection	5 5	YST	1 2 3 4 5 6 7 8 9 10
Lowest Long. Intersection	1 3 2	YST	11 12 13 14 15 16 17 18 19 20
Difference between Grid		YST	21 22 23 24 25 26 27 28 29 30
Interval (Long)		YST	31 32 33 34 35 36 37 38 39 40
Interval (Lat)		YST	41 42 43 44 45 46 47 48 49 50

Computed _____
 Punched _____
 Checked _____
 Date _____

H9285 Signal Card Printout

09285	176	72	54502296	132183354	05549	02694	176
09285	177	72	55515886	132172159	04236	05808	177
09285	201	72	55552124	132214940	09120	12381	201
09285	202	72	55551807	132212884	08746	12277	202
09285	204	72	55545804	132211347	08466	11627	204
09285	205	72	55544905	132210961	08595	11335	205
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09285	208	72	55544203	132213441	08848	11107	208
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09285	312	72	55515070	132194035	06769	05543	312
09285	313	72	55520511	132195970	07122	06011	313
09285	314	72	55522037	132202116	07514	06507	314
09285	315	72	55523414	132204196	07894	06954	315
09285	316	72	55522509	132203875	07835	06660	316
09285	318	72	55515665	132190155	06061	05736	318
09285	319	72	55515083	132185351	05914	05547	319
09285	320	72	55514782	132191420	06292	05450	320
09285	322	72	55535894	132175378	04824	09707	322
09285	324	72	55520194	132190920	06200	05908	324
09285	325	72	55521103	132192145	06424	06203	325
09285	326	72	55510134	132202828	07645	03941	326
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09285	328	72	55512228	132202138	07519	04620	328
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09285	351	72	55555797"	132235769"	11458	13576	351--off survey
09285	352	72	55555959"	132223846	10014	13627	352
09285	265	72	55534811	132200000	07127	09356	265
09285	267	72	55532558	132195178	06977	08624	267
09285	317	72	55523424	132200000	07128	06957	317
09285	203	72	55550549	132213011	08769	11869	203
09285	223	72	55560427	132161930	03102	13777	223
09285	243	72	55543110	132192722	06528	10751	243
09285	399	72	55525908	132133118	00031	07767	399

HQ285 Velocity Tape Printout

001390 0 0000 0001 001 202000 009285
002350 0 0010

H 9285

TRA Corrector Tape Printout

FAS

FA 10-1A-72

111230	1	0001	0001	115	000000	000000
084130	1	0001	0001	116	000000	000000
111945	1	0001	0001	118	000000	000000
084000	1	0001	0001	119	000000	000000
130930	1	0001	0001	137	000000	000000
090930	1	0002	0001	138	000000	000000

FAS

FA 10-1B-72

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111000	1	0001	0001	129	000000	000000
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101430	1	0001	0001	133	000000	000000
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FA4

FA 10-1A-72

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110030	1	0004	0001	133	000000	000000
103500	1	0000	0001	136	000000	000000
121100	1	0004				
103000	1	0004	0001	137	000000	000000
083500	1	0004	0001	138	000000	000000
084500	1	0003	0001	139	000000	000000
084300	1	0004	0001	145	000000	000000

FA4

FA-10-1B-72

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APPROVAL SHEET

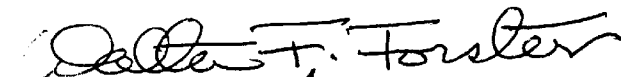
The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report.)

Examined and approved,



James Green
Supervisory,
Cartographic Technician

Approved and forwarded,



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

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, NOAA Ship FAIRWEATHER, 1972.

1/30/74

Category II
no priority

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): Eagle Island

Period: 5 April - 24 May 1972

HYDROGRAPHIC SHEET: H-9285

OPR: 465

Locality: Ernest Sound, Alaska

Plane of reference (mean lower low water): 6.4 ft.

Height of Mean High Water above Plane of Reference is 14.8 ft.

Remarks: Zone: Apply heights direct.


Chief, Tides Branch

GEOGRAPHIC NAMES

Survey No.

H-9285

Name on Survey

	On Chart No.	On previous survey No.	On U. S. Quadrangle Maps	From local information	On local Maps	P. O. Guide or Map	Rand McNally Atlas	U. S. Light List	
	A	B	C	D	E	F	G	H	K
CARLTON ISLAND	✓								1
CLARENCE STRAIT	✓								2
Dewey Anchorage	✓								
EAGLE ISLAND	✓	✓							3
ERNEST SOUND	✓	✓							4
ETOLIN ISLAND	✓	✓							5
MUFFIN ISLANDS	✓								6
ONSLow ISLAND.	✓	✓							7
ONSLow POINT	✓	✓							8
STONE ISLANDS	✓								9
									10
									11
									12
									13
									14
									15
									16
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									23
									24
									25
									26

Approved
 Ches E. Harrington
 Staff Geographer
 31 Jan. 1975

H-9285

Items for Future Presurvey Reviews

The sunken rock rep PD, charted latitude 55°55'37.3", longitude 132°22'14.7", should be investigated and verified or disproved during any future work in this area.

<u>Position Index</u>		<u>Bottom Change Index</u>	<u>Use Index</u>	<u>Resurvey Cycle</u>
<u>Lat.</u>	<u>Long.</u>			
554	1322	0	1	50
555	1323	0	1	50
555	1322	0	1	50

OFFICE OF MARINE SURVEYS AND MAPS

MARINE SURVEYS DIVISION

MODIFIED HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-9285

FIELD NO. FA-10-1-72

Alaska, Earnest Sound, Onslow Point to Etalin Island

SURVEYED: March 24 - May 24, 1972

SCALE: 1:10,000

PROJECT NO.: OPR-465

SOUNDINGS: Ross 400A, Raytheon Depth
Recorder DE-723 and Lead Line

CONTROL: Raydist, Sextant
Angles on Shore Signals

Chief of Party..... R. H. Houlder
Surveyed by S. C. Miller
..... D. E. Nortrup
..... M. C. Grunthal
..... N. B. Bodnar, Jr.
..... I. Ballentine
..... E. G. Wood
..... F. B. Arbusto, Jr.
..... T. R. Crane
..... K. H. Underwood
..... R. J. Schmidt
Automated Plot by..... PMC Gerber Digital Plotter
Verified by M. G. Sanders
Reviewed by L. Quinlan
Date: June 25, 1976
Cursory inspection made--survey
processing considered complete..... K. W. Wellman
October 4, 1977

1. Control and Shoreline

The origin of the control is adequately covered in part F of the Descriptive Report.

The shoreline originates with Class I photogrammetric manuscripts (unreviewed) T-12367, T-12370 of 1963/71, T-12368 (1963-65/72), and T-12371 (1963/72). There were slight displacements of shoreline in latitude 55°52'30", longitude 132°20'48", and latitude 55°52'19", longitude 132°20'00", at the junctions of Class I shoreline manuscript T-12370 with T-12367 and T-12371 respectively. Appropriate revisions to T-12370 were effected by the Coastal Mapping Division (Photogrammetric Branch-Quality Control Group) and provided as a blueprint (Bp-101060 (1977)). Accordingly, the shoreline segments in the above positions were transferred to the present smooth sheet from Bp-101060 (1977).

The mean high water line is shown for guidance only, as its true position is shown on the topographic surveys previously mentioned.

Due to inadequate photographic coverage the delineation of the fringing ledge on the south and southeast sides of Stones Islands is not complete on T-12368. The ledge in this area, therefore, was drawn to conform to the general configuration of the MLLW line as defined by hydrographic development, with some interpolation necessary in areas of sparse hydrography. Accordingly, these ledges are not to be considered definitive and are shown for guidance only.

2. Hydrography

- a. Depths at crossings are in good agreement.
- b. The usual depth curves are adequately delineated. During verification, however, many depth curves were inaccurately and/or inappropriately delineated thus necessitating suitable revisions during review.
- c. The development of the bottom configuration and determination of least depths are considered adequate.

3. Condition of Survey

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

- a. Additional data from the shoreline manuscripts had to be transferred to the present survey by the reviewer, and, further, the shoreline on the smooth sheet frequently is excessively displaced from its T-sheet position.
- b. Sufficient bottom samples were not obtained as specified in section 1-42 of the Hydrographic Manual.
- c. Incorrect abbreviations of bottom characteristics were shown on the smooth sheet.
- d. Incorrect tide correctors were used to reduce depths on some detached positions; for example, a tide corrector in fathoms was subtracted from a detached sounding given in feet.
- e. Soundings intended to delineate the limits of a ledge were misinterpreted as rocks, and some plotted soundings should have been classified as rocks.
- f. "Foul" areas, as defined on the Advanced Topographic Manuscripts were not always carried forward to the smooth sheet when appropriate.

g. It was necessary in some areas to extend the ledge to include negative soundings which were falling directly outside of the photogrammetrically delineated ledge.

h. Presurvey Review Item #7, chart 8124 was not investigated (see section 6a(1) of this review.

i. A rock awash erroneously plotted 150 meters northeast of its true position on the boat sheet at latitude $55^{\circ}50'18''N$, longitude $132^{\circ}18'27''$, had not been plotted on the smooth sheet prior to review.

j. Several bottom characteristics were excessively displaced on the smooth sheet.

k. Numerous soundings were plotted indistinctly on the smooth sheet due to worn or dirty characters on the numbering head of the plate.

4. Junctions

Adequate junctions were accomplished with H-9286 (1972) on the northeast and H-9288 (1972) on the southeast. Junction with H-9192 (1971) on the northwest is discussed in the review of that survey. H-9194 (1971) on the south is unavailable at this time due to its stage of processing; however, a junction will be effected at the time of its review.

5. Comparison with Prior Surveys

- a. H-1739 (1886) 1:20,000
- H-3942 (1916) 1:20,000
- H-4250 (1922) 1:20,000
- H-4271 (1922) 1:20,000

These prior surveys cover the entire area of the present survey. A comparison between prior and present depths reveals that much of the bottom has remained unchanged since 1922, with scattered depth differences of as much as +6 fathoms. The noted depth differences are attributed to the less detailed and less accurate methods employed on the prior surveys and to natural changes in the bottom.

Many rocks, soundings, and bottom characteristics were carried forward from prior surveys to supplement the present survey. Prior survey H-4250 (1922) conflicts with the present survey in the following two areas. A prior line of soundings (pos. 1a-4a red) between Elotin Island and Stones Island in latitude $55^{\circ}54.9'$, longitude $132^{\circ}17.4'$, is in error, apparently due to poor control and should be disregarded. A prior 3.3-fathom depth (pos. 37a blue) has been misplotted by approximately 90 meters to the northwest of its true position. It was replotted at latitude $55^{\circ}52'47''$, longitude $132^{\circ}18'33''$, and carried forward to supplement the present survey.

A few soundings were carried forward from H-3942 to delineate the continuity of channels in latitude $55^{\circ}54.3'$, longitude $132^{\circ}18.5'$, and latitude $55^{\circ}55.2'$, longitude $132^{\circ}18.0'$.

With the aforementioned additions the present survey is considered adequate to supersede the prior surveys within the common area.

- b. H-3793 (1915-16) WD 1:20,000
H-3935 (1916) WD 1:20,000

These wire drag surveys cover portions of the southeast corner of the present survey area. Conflicts are noted in the vicinity of latitude $55^{\circ}50.18'$, longitude $132^{\circ}18.60'$, where present depths of 6.9 fathoms (41 ft.) and 7.8 fathoms (47 ft.) fall within an area charted to an effective depth of 48 ft. on H-3793. These conflicts are attributed to the southerly accretion of the shoal off Onslow Point, and the 48-ft. charted depth is therefore considered invalid.

Except as noted above, there are no conflicts between present depths and charted depths on the prior wire drag surveys.

One sounding of 3.3 fathoms (20 ft.) comprising the least depth on a shoal shown on the present survey in the vicinity of latitude $55^{\circ}51.97'$, longitude $132^{\circ}16.62'$, was carried forward from H-3935 to supplement the present survey.

6. Comparison with Charts 17385 (formerly 8161), 7th Edition, March 1975
17423 (formerly 8124), 9th Edition, November 1972

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration, supplemented by the partial application of the verified smooth sheet of this survey.

Attention is directed to the following:

(1) The sunken rock, rep PD (Presurvey Review Item #7) charted in latitude $55^{\circ}55'37.3''$, longitude $132^{\circ}22'14.7''$, originating with U.S.G.S. Quadrangle Craig D-2 between 1948-1951 was not investigated. It is not verified or disproved by the present survey, and therefore, should remain as presently charted.

(2) Numerous charted soundings and a submerged rock, ostensibly originating with the present survey; i.e., appearing on the 7th edition of chart 8161 to which the present survey was applied, are charted erroneously (positions and/or depths in error). All such items should be deleted from the chart and replaced with properly positioned information from the present survey.

Information and recommendations concerning investigations of Presurvey Review Items are discussed under paragraph J of the Descriptive Report.

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

b. Aids to Navigation

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

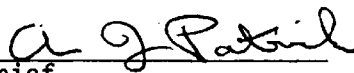
7. Compliance with Project Instructions

The survey adequately complies with the Project Instructions except as noted in paragraph 3 of this review.

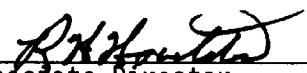
8. Additional Field Work

This survey is considered to be an adequate survey. It is recommended that Presurvey Review Item #7 (chart 8124) mentioned in paragraph 6-a(1) of this review be investigated during future work in the area.

Examined and Approved:

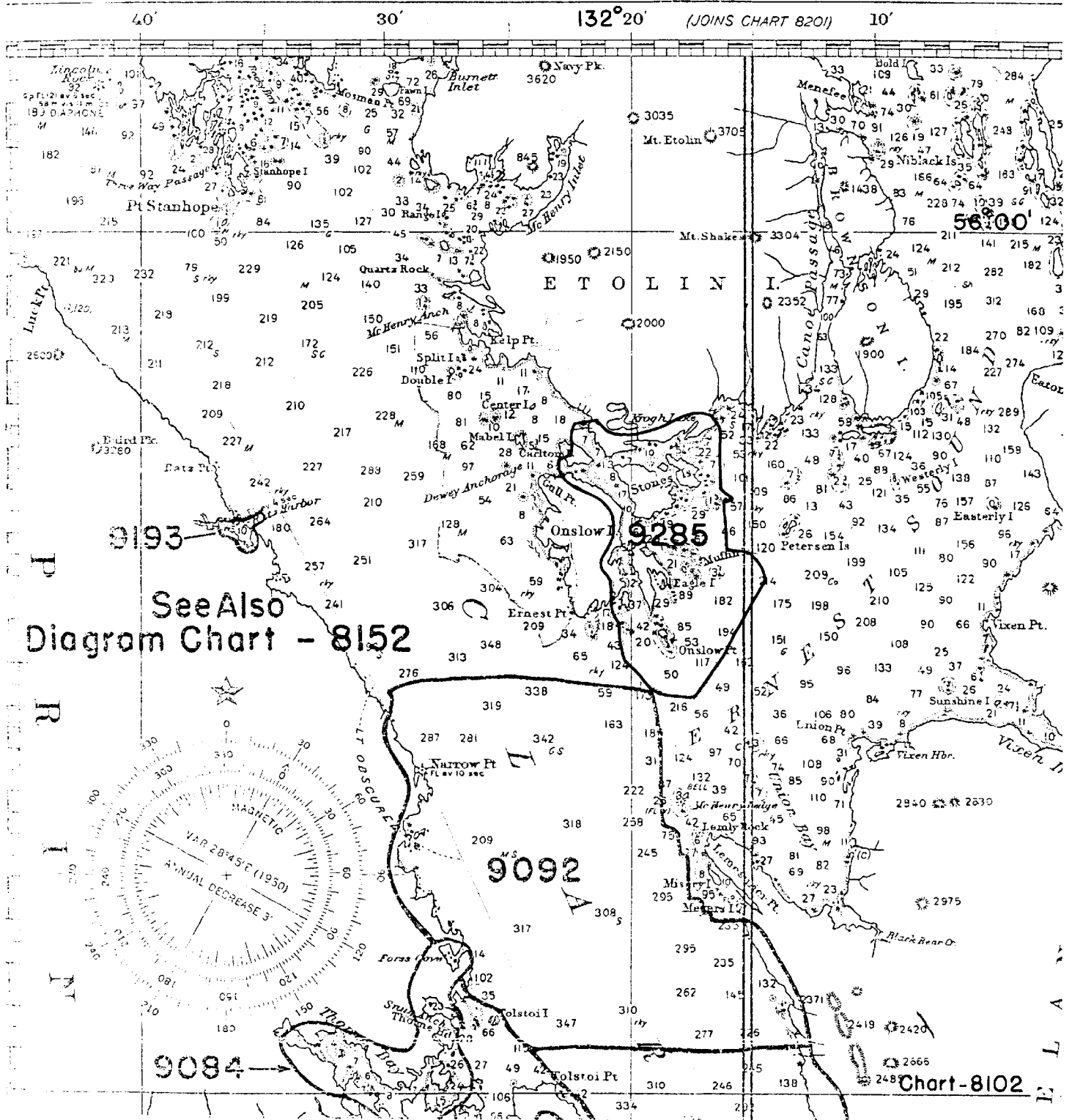


Chief
Marine Surveys Division



Associate Director
Marine Surveys and Maps

102 PRICE 75 CENTS



See Also
Diagram Chart - 8152

9084

Chart-8102

