

9047

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

Field No. FA-10-1-69 Office No. H-9047

LOCALITY

State ALASKA

General locality Gulf of Alaska

Locality West Side of
Middleton Island

19 69

CHIEF OF PARTY

John B. Watkins, Jr., Capt., USESSA

LIBRARY & ARCHIVES

DATE 1-14-74

USCOMM-DC 87022-P66

Charts
8500
8502
8551
9000

9047
906

HYDROGRAPHIC TITLE SHEET

H-9047

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-10-1-69

State ALASKA

General locality Gulf of Alaska

Locality West side of Middleton Island

Scale 1:10,000 Date of survey June thru August 1969

Instructions dated 20 March 1969 Project No. OPR-487

Vessel USC&GSS FAIRWEATHER

Chief of party J. B. Watkins, Jr., Capt., USESSA

Surveyed by Lt. Ito, Lt.(jg) Neff, Lt.(jg) Lenart Ens. Divis

Soundings taken by echo sounder ~~hand held~~ DE-723 (#559, #561), ROSS 400

Graphic record scaled by FAIRWEATHER Personnel

Graphic record checked by FAIRWEATHER Personnel

Positions verified F. L. Rosario, W.B. Martin Automated plot by PMC - ~~Geodesy Dept~~

Soundings ~~checked~~ ^{verified} by F. L. Rosario Foster

Soundings in fathoms ~~feet~~ at ~~MLLW~~ MLLW Middleton Island

REMARKS:

Area 6

cht

8500

8502

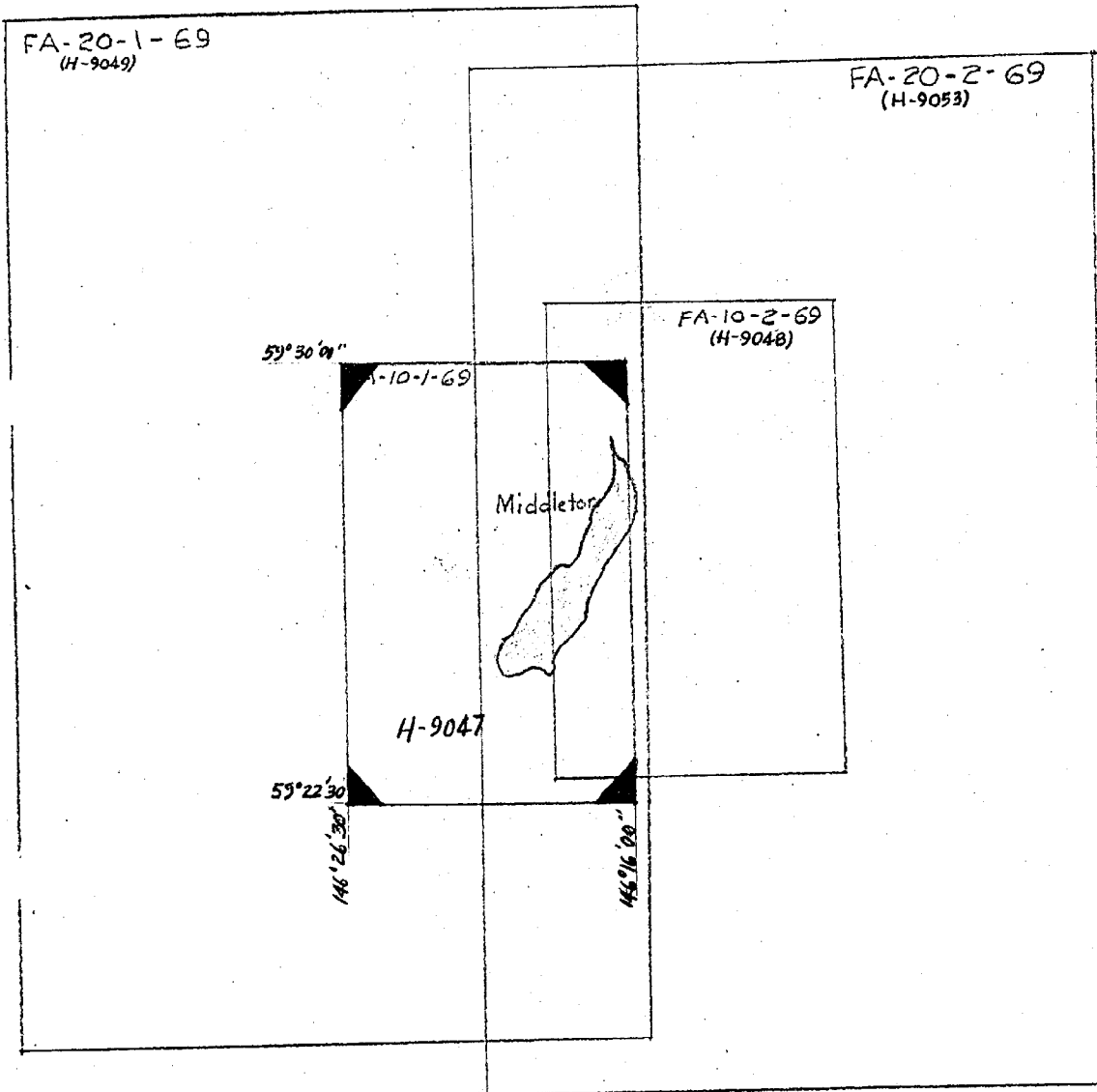
8551

9000

*Applied to stds 6/12/74
CRB*

ADP

OPR 437



DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY SHEET H-9047 (FA-10-1-69)

MIDDLETON ISLAND, ALASKA

Scale 1:10,000

USC&GSS FAIRWEATHER

1969

CAPT. J. B. Watkins, Jr., Comdg.

A. PROJECT

Hydrographic survey sheet H-9047 (FA-10-1-69) was accomplished under OPR-487, project instructions dated 20 March 1969, and supplements to instructions dated 8 May 1969 and 26 August 1969.

B. AREA SURVEYED

The survey was performed on the northwest, west, and south coasts of Middleton Island, Alaska, from the dates 10 July thru 9 August 1969. The limits of the survey are as follows:

North Limit 59° 30.0' N
South Limit 59° 22.0' N
East Limit 146° 18.0' W
West Limit 146° 27.0' W

The survey junctions with the following surveys:

<u>Reg. No.</u>	<u>Field No.</u>	<u>Scale</u>	<u>Date</u>
H-9048	FA-10-2-69	1:10,000	1969
H-9049	FA-20-1-69	1:20,000	1969
	SP-5-67	1:20,000	1967

See Verifier's Report

C. SOUNDING VESSELS

All sounding lines were run by Bertram Launches, with the following color code and position numbers designated:

<u>Launch</u>	<u>Color</u>	<u>Position Number</u>
FA-3	Green	0001 to 3000
FA-4	Blue	3001 to 6000
FA-5	Red	6001 to 9000

D. SOUNDING EQUIPMENT

Raytheon DE-723 fathometers were used on Launch FA-3 (serial # 559) and Launch FA-5 (serial # 561); a prototype Ross Fineline Digital Fathometer (Model 400) was used on Launch FA-4. Special interest may be directed to the following Ross 400 operations:

- a.) the digital read-out and flexowriter printout are in fathoms.
- b.) the analog trace (fathogram) is in feet.
- c.) due to an unstable inverter power supply, the top of the analog trace is not the correct sounding in all instances.
- d.) sounding recorded on the flexowriter printout are true depths.
- e.) regardless of paper scale, (0-50 feet, 0-100 feet), all fathogram paper is implied to be 0-100 foot scale.

The frequent occurrence of kelp and underwater pinnacles at times presented difficulty in interpreting the fathogram. In these cases, the sounding was assumed to be the least depth. *Even on kelp?*

Sounding lines were run in the inshore vicinity in areas of depth less than 15 fathoms. In the southern area, sounding lines (FA-4) were extended to areas of 35 fathoms due to numerous off-shore pinnacles and shoal areas.

The velocity corrections were determined from serial temperature and salinity observations. The corrections for the launches also include bar check results. An abstract of the cumulative corrections to soundings for the survey is included in the report. ✓

E. SMOOTH SHEET

The position and sounding data were recorded, logged for automated processing, and plotted on boatsheets by ship's personnel. The signal list was prepared and a signal overlay plotted by the Gerber Digital Plotter was verified by ship's personnel. The final smooth sheet is to be plotted electronically and verified by personnel at Pacific Marine Center. ✓

F. CONTROL

All hydrography was accomplished by visual fix methods, using control signals established by the following techniques:

- a.) triangulation stations were plotted on the boat-sheet by PMC, EDAT.
- b.) photo-hydro signals were identified on aerial photographs, transferred to Advance Manuscripts (T-13192, T-13193) using radial or direct plotting methods, and transferred directly from the manuscript to the boatsheet.
- c.) hydrographic signals were plotted on the boatsheet directly from sextant fixes.

Due to the elongated shape of the island, it was occasionally necessary to use angles less than 30° in visual fixes.

Also, See Verifier's Report

G. SHORELINE

Shoreline was transferred directly to the boatsheet from Advance Manuscripts: T-13191, T-13192, T-13193, and T-13194. The principal features and shoreline were verified in the course of the survey; however, three areas had changed and were delineated by launch hydro.

- a.) the north tip of Middleton Island and the adjacent northwest shoal area shifted position (reference sheet H-9053).
- b.) the kelp area on the west coast of the island is more extensive than indicated, and seems to shift position.
- c.) the entire southwest coastal area is foul with rock, as was visually evident at a minus tide, and by frequent attempts to run launch hydro in the area.

The zero curve was not defined by soundings in many instances due to numerous foul areas.

H. CROSSLINES

Crosslines, consisting of 8% of the regular system of sounding lines, were in good agreement.

I. JUNCTIONS

The junctions made with contemporary surveys FA-10-2-69 (H-9048) and FA-20-1-69 (H-9049) were found to be in satisfactory agreement. *See Verifier's Report*

J. COMPARISON WITH PRIOR SURVEYS

An overlay co-ordinate system corresponding to the approximate 1927 North American Datum was used in locating each of the following Presurvey Review items:

Item	ϕ	λ	Verified	Recommendations
Sounding 12	59° 22.75'	146° 24.77'	yes ✓	13-14 fms ✓
Sounding 10	59° 22.54'	146° 24.10'	no ✓	12-16 ⁴ fms ✓
Sounding 3	59° 23.70'	146° 24.10'	yes ✓	foul with rock ✓
Sounding 4 4/6	59° 23.86'	146° 24.37'	yes ✓	foul with rock ✓
Sounding 4 1/6	59° 23.92'	146° 24.08'	yes ✓	foul with rock ✓
Sounding 3 4/6	59° 23.96'	146° 23.87'	yes ✓	foul with rock ✓
Sounding 2 5/6	59° 26.46'	146° 20.41'	yes ✓	foul with kelp ✓
Sounding 2 1/6	59° 26.46'	146° 20.34'	yes ✓	foul with kelp ✓
Sounding 4 1/6	59° 25.90'	146° 22.40'	yes ✓	foul with kelp ✓
Sounding 1 4/6	59° 25.31'	146° 22.50'	no ✓	foul with rock ✓
Sounding 9 1/2	59° 26.58'	146° 23.50'	yes ✓	none ✓
Sounding 9 1/2	59° 26.45'	146° 23.25'	yes ✓	none ✓
Sounding 4 5/6	59° 27.05'	146° 20.18'	yes ✓	2-5 fms ✓
Sounding 10 3/4	59° 27.62'	146° 21.46'	yes ✓	none ✓
Sounding 9 3/4	59° 27.55'	146° 21.25'	yes ✓	none ✓

Item	ϕ	λ	Verified	Recommendations
Sounding 10 $\frac{3}{4}$	59° 27.66'	146° 21.0 8 ⁰ '	yes ✓	6-9 ^{6²} fms
Sounding 12	59° 28.42'	146° 22.95'	yes ✓	11 fms ✓
Sounding 12	59° 28.38'	146° 22.84'	yes ✓	11 fms ✓
Sounding 12	59° 28.35'	146° 22.69'	yes ✓	11 fms ✓
Sounding 11	59° 28.13'	146° 22.22'	yes ✓	10 $\frac{2}{2}$ fms ✓
Sounding 11	59° 26.05'	146° 24.22'	yes ✓	none ✓
Sounding 7 $\frac{1}{4}$	59° 28.86'	146° 20.88'	yes ✓	6 fms ✓
Sounding 2 $\frac{3}{6}$	59° 24.22'	146° 23.93'	yes ✓	foul with rock
Sounding 4 $\frac{5}{6}$	59° 24.70'	146° 23.48'	yes ✓	2 $\frac{8}{8}$ fms foul with rock
Sounding 7 $\frac{1}{4}$	59° 24.91'	146° 24.14'	yes ✓	none ✓
Sounding 6	59° 24.76'	146° 25.05'	no ✓	8-13 fms ✓
Sounding 15	59° 22.47'	146° 20.9 0 ⁸ '	no ^{yes} ✓	19 ¹⁵ fms
Sounding 16	59° 22.37'	146° 20.90'	no ^{yes}	20 ¹⁶ fms
Sounding 11	59° 22.71'	146° 20.64'	yes ✓	none ✓
Sounding 10 $\frac{1}{4}$	59° 22.89'	146° 20.12'	no ^{yes}	13 ^{10 $\frac{1}{4}$} fms
Sounding 11	59° 22.93'	146° 19.62'	yes ✓	none ✓
Sounding 10 $\frac{1}{4}$	59° 23.07'	146° 19.92'	yes ✓	none ✓
Sounding 10 $\frac{1}{2}$	59° 23.17'	146° 20.33'	yes ✓	none ✓
Sounding 9 $\frac{1}{2}$	59° 23.21'	146° 19.55'	yes ✓	none ✓
Sounding 9 $\frac{1}{2}$	59° 23.42'	146° 19.75'	yes ✓	none ✓
Sounding 6	59° 23.97'	146° 19.20'	yes ✓	foul ✓
Sounding 4 $\frac{1}{4}$	59° 24.23'	146° 19.14'	yes ✓	foul with rock ✓

Item	ϕ	λ	Verified	Recommendations
Rock	59° 24.03'	146° 20.16'	no ✓	foul with rock ✓
Sounding 2 5/6	59° 23.73'	146° 20.70'	no ✓	foul with rock ✓
(2) Rocks	59° 22.68'	146° 23.15'	yes ✓	foul ✓
(2) Rocks	59° 22.88'	146° 23.24'	no ✓	none
(1) Rock	59° 23.66'	146° 19.18'	yes ✓	foul with rock ✓
(1) Rock	59° 23.69'	146° 24.81'	no ✓	delete ✓
Rocks	59° 28. '	146° 18.9 '	no ✓	kelp ✓
Shoal area	59° 28.7 '	146° 18.7 '	yes ✓	foul ✓

All presurvey review items are listed as required. It is recommended that, in developing the new chart, primary emphasis be placed on data from this survey (H-9047). All previous surveys of this area should be considered obsolete because many major differences, probably the result of the 1964 earthquake, were found. It should also be noted that the presurvey review items were plotted on a small scale copy of a survey conducted on the Valdez Datum, thus making it difficult to make an accurate comparison between the two surveys. ✓

The wreck of the S.S. COLDBROOK is located at position LAT 59° 25.7' N, LONG 146° 21.3' W. A hydrographic development was run in the area of the indicated wreck (Presurvey Review LAT 59° 26.2' N, LONG 146° 21' W) and nothing was found. ✓

The sounding agreement with prior survey SP-5-67-A and SP-5-67-B (1967, scale 1:20,000) was good; whereas, soundings from prior survey H-5422 (1933, scale 1:20,000) were 2 to 3 fathoms deeper on the average, and in some instances 4 fathoms deeper (this may be attributed to a 1964 uplift of the general area).

K. COMPARISON WITH THE CHART

Comparison with C&GS chart 8551 (December 30, 1968, scale 1:200,000) showed generally that the area is now 2 to 3 fathoms shoaler, as explained in Section J, Comparison with Prior Surveys. ✓

L. ADEQUACY OF SURVEY

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

M. AIDS TO NAVIGATION

The following Aids to Navigation are presently charted:

<u>Description & Date</u>	<u>Chart Position</u>	<u>Light List Position</u>
MIDDLETON ISLAND, AIRPORT BEACON, 1965	59° 27.30' N 146° 18.11' W	59° 27.4' N 146° 18.3' W
MIDDLETON ISLAND, H-MARKER MAST, 1965	59° 27.68' N 146° 18.13' W	not listed

The following Aids to Navigation are recommended to be charted:

<u>Description & Date</u>	<u>Position</u>	<u>Maintained</u>
VOR, MIDDLETON ISLAND, RADIO MDO, 1965	59° 25.34' N 146° 20.89' W	FAA
TALL SUPPORT FOUNDATION OF OLD RADAR SITE, 1967	59° 26.29' N 146° 19.55' W	no

*See enclosed form 567 in Appendix ✓

N. STATISTICS

<u>Vessel</u>	<u>Positions</u>	<u>Sounding Miles</u>	<u>Bottom Samples</u>
FA-3	617	129.2	17
FA-4	1194	172.2	0
FA-5	1017	122.9	0

Total are surveyed = 13.2 sq. mi. ✓

O. MISCELLANEOUS

There were no sounding lines run in areas delineated "FOUL WITH ROCK" as these waters were considered unsafe to operate within.

Hydrography was limited in dense kelp areas due to launch overheating problems.

There is a zero fathom sounding in a 2-fathom vicinity at position LAT 59° 26.5' N, LONG 146° 20.7' W. ✓

P. RECOMMENDATIONS

Any areas, in which there are no soundings, should be considered unsafe for navigation. ✓

Q. REFERENCE TO REPORTS

- 1.) SEASON'S REPORT, Ship FAIRWEATHER 1969 (to be forwarded)
- 2.) FATHOMETER REPORT, Ship FAIRWEATHER, 1969 Field Season (to be forwarded)
- 3.) FIELD EDIT REPORT, MIDDLETON ISLAND, OPR-487, 1969, Ship FAIRWEATHER (forwarded 1 December 1969)
- 4.) EVALUATION OF ROSS FATHOMETER, Ship FAIRWEATHER 1969
- 5.) COAST PILOT REPORT, MIDDLETON ISLAND 1969, Ship FAIRWEATHER (to be forwarded) ✓

Respectfully submitted

John J. Lenart
John J. Lenart
LTJG., USESSA

TIDE NOTE

Tide corrections were determined from data obtained from the Bubbler Tide Gage at Middleton Island (LAT 59° 27.75' N, LONG 146° 18.67' W). Tide gage marigrams were sent to the Rockville Office where the daily hourly heights were scaled, and sent back to the FAIRWEATHER to prepare tide reducers.

The Rockville Office determined MLLW to be:

July height datum is 6.2 feet below MLLW
August height datum is 4.3 feet below MLLW

Time was referenced to Meridan 135° W.

Memorandum

Coast and Geodetic Survey

TO : Commanding Officer
USC&GSS FAIRWEATHER

FROM : Chief, Tides Section
Oceanography Division

SUBJECT: Middleton Island Tidal Data

DATE: December 1, 1969

In reply refer to:
C3312-228-CSS

Enclosed are copies of tabulations of the Cordova tide record covering the dates requested in your recent memo. Also enclosed is a copy of the hourly heights recorded by the Middleton Island gage.

Note the different MLLW elevation for each section of the Middleton Island record. These values were computed by comparison with Cordova observations but, as you know, could not be verified through level records.

The Katalla Bay record is not considered reliable. For days when the Middleton Island gage was inoperative, use the Cordova record with the tide table differences as to time of tides and a range ratio of 0.8.

Martha A. Winn

Martha A. Winn

Enclosures



GEOGRAPHIC NAMES

Survey No. H-9047

Name on Survey	A	B	C	D	E	F	G	H	K	
	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		
GULF OF ALASKA										1
MIDDLETON ISLAND										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

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

ABSTRACT OF VELOCITY CORRECTIONS

to be applied to the
ECHO SOUNDINGS for BOAT SHEET H-9047

APPLICABLE DEPTHS fathoms	CORRECTIONS fathoms
0 - 5	+0.1
5 - 15	+0.2
15 - 30	+0.3
30 - 60	+0.4
60 - 80	+0.5
80 - 100	+0.6
100 - 120	+0.7
120 - 140	+0.8
140 - 160	+0.9
160 - 180	+1.0
180 - 200	+1.1
200 - 300	+1.7

FATHOGRAM INITIAL CHECK CORRECTIONS BOAT SHEET H-9047

<u>POSITION NO.</u>	<u>CORR. (fms)</u>	<u>POSITION NO.</u>	<u>CORR. (fms)</u>
0001 - 0038	-1.0	6586 - 6589	-0.1
0111 - 0161	-0.1	6819 - 6822	-0.1
0340 - 0343	-0.1	6836 - 6837	-0.1
0347 - 0349	-0.1	7005 - 7008	-0.1
0553 - 0555	+0.1	7009 - 7010	-0.2
6001 - 6018	-1.0		
6019 - 6050	-1.1		
6102	+0.1		
6222	-0.1		
6477 - 6478	-0.2		

ECHO CORRECTIONS

Launch FA-3

Launch FA-4

<u>Date</u>	<u>Corrections (fms)</u>	<u>Date</u>	<u>Corrections (fms)</u>
7-10	+0.2	7-11	+0.3
7-12	+0.3	7-12	+0.3
7-14	+0.3	7-13	+0.3
7-15	+0.3	7-14	+0.3
7-16	+0.2	7-15	+0.3
7-18	+0.2	7-16	+0.3
		7-18	+0.4
		7-22	+0.4
		7-23	+0.4
		7-24	+0.4
		8-09	+0.3

Launch FA-5

<u>Date</u>	<u>Corrections (fms)</u>
7-10	+0.3
7-11	+0.3
7-12	+0.2
7-13	+0.3
7-14	+0.3
7-15	+0.2
7-16	+0.3
7-18	+0.3
7-22	+0.2
7-24	+0.2

SIGNAL LIST
 HYDROGRAPHIC SURVEY H-9047
 FA-10-1-69

Signal No. used in Survey	Type	Origin of Signal
001	Triangulation	MIDDLETON ISLAND H- MARKER MAST, 1965
002	Triangulation	VOR, MIDDLETON ISLAND RADIO MDO, 1965
003	Triangulation	MIDDLETON ISLAND RCAG SITE #1, 1965
004	Triangulation	AIRPORT BEACON, MIDDLETON ISLAND AIRPORT, 1965
005	Triangulation	ETON, 1967
006	Triangulation	IDLE, 1967
007	Triangulation	SPIT 2, 1967
008	Triangulation	MIDDLETON ISLAND, 1933
009	Triangulation	ARAB, 1967
010	Photo-hydro	T-13192
011	Photo-hydro	T-13192
012	Photo-hydro	T-13192
013	Photo-hydro	T-13192
014	Photo-hydro	T-13192
015	Photo-hydro	T-13193
016	Photo-hydro	T-13193
017	Photo-hydro	T-13193
018	Photo-hydro	T-13193
019	Photo-hydro	T-13193
020	Photo-hydro	T-13193
021	Photo-hydro	T-13193
022	Photo-hydro	T-13193
023	Photo-hydro	T-13193
024	Photo-hydro	T-13192
025	Photo-hydro	T-13192
026	Photo-hydro	T-13192
027	Photo-hydro	T-13192
028	Hydrographic	Volume 8 and 9, Sheet FA-10-1-69
029	Hydrographic	FAIRWEATHER Calibration Volume
100	GRID Pt. (Pseudo)	Boat sheet

HYDROGRAPHIC SURVEY H-9047 (FA-10-1-69)

GEOGRAPHIC POSITIONS

SIGNAL LIST

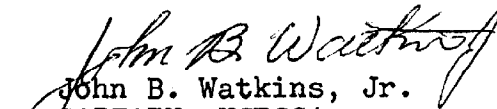
<u>SIG.#</u>	<u>LAT.</u>	<u>m.</u>	<u>LONG.</u>	<u>m.</u>	<u>SIG.#</u>
001	59 27	1262	146 18	0122	001
002	59 25	0636	146 20	0844	002
003	59 27	1100	146 18	0239	003
004	59 27	0555	146 18	0104	004
005	59 24	1424	146 21	0746	005
006	59 25	0826	146 21	0123	006
007	59 27	1746	146 18	0367	007
008	59 26	0204	146 19	0915	008
009	59 26	0546	146 19	0515	009
010	59 27	1237	146 18	0495	010
011	59 27	0764	146 18	0646	011
012	59 27	0253	146 19	0070	012
013	59 26	1275	146 19	0354	013
014	59 26	0632	146 19	0646	014
015	59 26	0013	146 20	0445	015
016	59 25	1222	146 21	0331	016
017	59 25	0471	146 21	0846	017
018	59 24	0968	146 22	0136	018
019	59 24	0718	146 21	0654	019
020	59 24	0972	146 20	0890	020
021	59 24	0569	146 20	0383	021
022	59 24	1724	146 20	0131	022
023	59 25	0534	146 19	0542	023
024	59 25	1808	146 19	0012	024
025	59 26	1054	146 17	0928	025
026	59 26	1602	146 17	0628	026
027	59 27	1414	146 18	0018	027
028	59 28	0546	146 18	0347	028
029	59 24	1010	146 15	0618	029
100	59 24	0000	146 26	0000	100

TRANSMITTAL SHEET

H-9047

FA-10-1-69

The field work and examination of records was accomplished under the supervision of this command. The boatsheet was inspected daily for completeness and accuracy. The survey is considered complete and adequate and no additional field work is considered necessary.


John B. Watkins, Jr.
CAPTAIN, USESSA
Commanding Officer
USC&GSS FAIRWEATHER

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9047

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & PNO		1	BOAT SHEETS		3	
DESCRIPTIVE REPORT		1	OVERLAYS		3 X	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1					
VOLUMES	10 X					
BOXES			1			

T-SHEET PRINTS (List)

SPECIAL REPORTS (List)

1-Bundle of Raw Data P/O.

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED		2928		
POSITIONS REVISED		424		
DEPTH SOUNDINGS REVISED		741		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		35		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		96		
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		320		
SPECIAL ADJUSTMENTS		92		
ALL OTHER WORK		309		
TOTALS		817		
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
VERIFICATION BY <i>Felipe L. Rosario</i> Felipe L. Rosario	26 February 1971		28 December 1973	
REVIEW BY	BEGINNING DATE		ENDING DATE	

VERIFIER'S REPORT

HYDROGRAPHIC SURVEY, H 9047

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	Part III - JUNCTIONS (Continued)		CL	R
<p>Note: The verifier should first read the Descriptive Report for general information and problems.</p> <p>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</p>		X		<p>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.</p>		X	
<p>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</p>		X		<p>Part IV - VOLUMES</p> <p>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</p>		X	
<p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None</p>		X		<p>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 <u>AW</u> (b) line turns <u>bedrock</u> (c) position values of beginning and ending of lines (d) bar check or velocity correctors (e) time recording (f) notes or markings on fathograms (g) was reduction of soundings accurately done? (h) was scanning accurate? (i) were peaks at uneven intervals missed? (j) were stamps completed? (k) references to adjacent features</p>			X
<p>Part II - SHORELINE AND SIGNALS</p> <p>4. Source of shoreline signals Remarks Required: -- List all surveys T-13191, 13192, 13193, 13194 a. Give earliest and latest dates of photographs <u>Aug. '64 - July '67</u> b. Field inspection date <u>May 1967</u> c. Field Edit date d. Reviewed-Unreviewed The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>		X				X	X
<p>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</p>			X				X
<p>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.</p>		X		<p>Part V - PROTRACTING</p> <p>13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None <u>Machine Plotted</u></p>		N/A	
<p>Part III - JUNCTIONS</p> <p>Note: Make a cursory comparison preliminary to making soundings in area of overlap.</p> <p>8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None</p>		X		<p>14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None <u>Machine Plotted</u></p>		N/A	
<p>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</p>			X	<p>15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. <u>Machine Plotted</u> Remarks Required: -- None</p>		N/A	

Part V - PROTRACTING (Continued)	CL	R	Part VIII - AIDS TO NAVIGATION	CL	R
15. The protracting was satisfactory except as follows: Machine Plotted Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.	N/A	X	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	
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number. Machine Plotted	N/A		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 VI - SOUNDINGS			Part IX - BOATSHEET		
18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Machine Plotted Remarks Required: -- None	N/A		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	
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.	X		29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.	X	
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None		X	Part X - GENERAL		
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None	X		30. All information on the sheet is shown in accordance with figures B2 and B3 in the Hydrographic Manual (Pub. 20-2). 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. Machine Plotted	N/A		31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None	X	
Part VII - CURVES			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	
23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the penciled curves inspected.	X		33. The bottom characteristics are adequately shown. Remarks Required: -- None	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 X X X		Part XI - NOTES TO THE REVIEWER <i>Rosario L.D. in help areas as necessary</i> 34. Unresolved discrepancies and questionable soundings.		
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	35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.	X	
			36. Supplemental information.		X
Verified by <i>Felipe L. Rosario</i> Felipe L. Rosario			X	Date	28 December 1973

VERIFIER'S REPORT

H-9047

Middleton Island, Alaska

FA-10-01-69

This sheet was constructed and plotted 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 946A.

PART II SHORELINE AND SIGNALS

6. Signal number 100 is the grid intersection point at Latitude $59^{\circ} 24' 30''$ and Longitude $146^{\circ} 26' 30''$. This point was used as a pseudo-signal to facilitate in the recomputation of acceptable position fixes.

PART III JUNCTIONS

9. Different processing phases precluded junctional verification or comparison with H-9049 (1969) and H-9053 (1969).

PART IV VOLUMES

12. In many instances, when rocks were referred to, the reference notes were inconsistent with respect to distance, direction and heights above or below water surface, etc.

Whenever the vessels were affected by dense kelp and/or currents, insufficient information hampered verification. But Compass directions and/or actual stopping times would have helped immensely.

The elongated shape of the island should have made the hydrographer take the necessary precaution of having check angles taken in doubtful areas.

Fathograms were inadequately marked and/or cross-referenced with regard to adjacent features, directional changes, periodic time comparisons, and stylus arm checks. Peaks and deeps were missed often and/or assigned to even time intervals, thus further aggravating differences at crosslines.

Furthermore, stamps were often ignored or incompletely filled out.

PART VI SOUNDINGS

20. The practice of recording peaks and deeps at even intervals magnified sounding verification problems since inevitably it led to a misrepresentation of the bottom configuration.

PART VII CURVES

25. Excessively-spaced sounding lines toward the southern limits of this sheet necessitated dashed lines being drawn instead of solid lines.

PART XI NOTES TO THE REVIEWER

36. Because this survey was conducted with both the Ross 400 Model Fineline Fathometer and the Raytheon DE-723 (the majority of the soundings were surveyed with the Ross model and conducted in the feet mode versus fathom mode for the Raytheon DE-723), it necessitated the re-scanning of fathograms and the logging of a feet to fathom conversion tape. In addition, power supply instability further clouded the reliability of the analog traces.

However, the soundings were still assumed to be the least depth in all instances.

Respectfully submitted,

Felipe L. Rosario

Felipe L. Rosario
Cartographic Technician

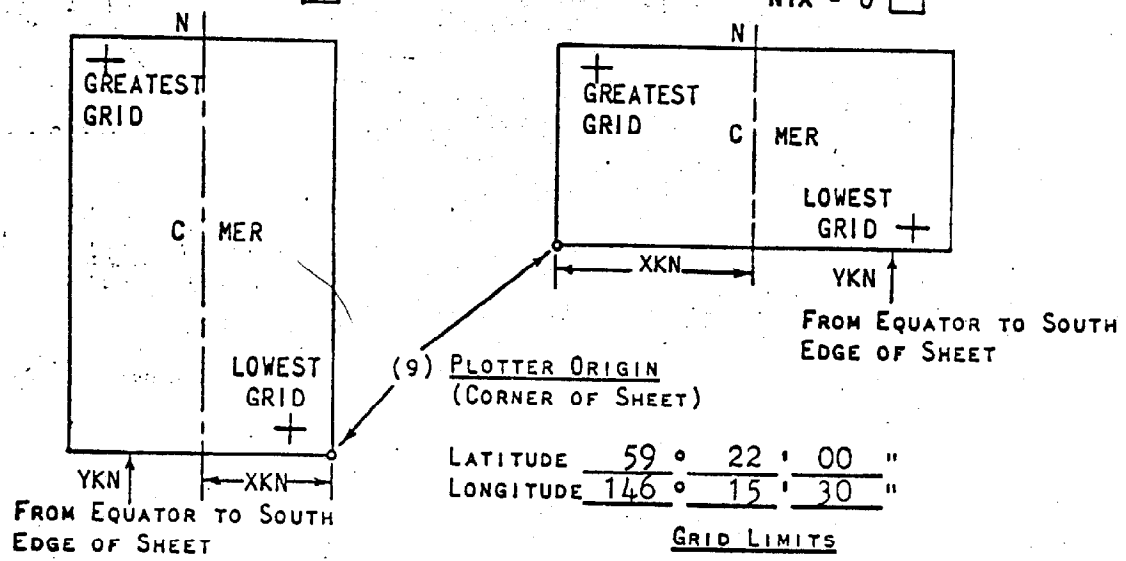
20129 "C"

FORM # 1

FIG. 15

PARAMETERS FOR DIGITAL COMPUTING
POLYCONIC PROJECTION

- (1) PROJECT No. OPR-487 (4) REQUESTED BY CAPT J.B. Watkins
- (2) H No. H-9647 (5) SHIP OR OFFICE FAIRWEATHER
- (3) FIELD No. FA-10-1-69 (6) DATE REQUIRED _____
- (7) VISUAL 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). 5212.7 METERS
- (11) YKN (SP 241) DISTANCE FROM EQUATOR TO SOUTH EDGE OF SHEET. 6,583,307.1 METERS
- (12) CENTRAL MERIDIAN 146 ° 21 ' 00 "
- (13) SURVEY SCALE 1:10,000
- (14) SIZE OF SHEET (CHECK ONE) 36x54 42x60 OTHER
- (15) NYX, ORIENTATION OF SHEET (CHECK ONE)
NYX = 1 NYX = 0



LIST G.P. OF ALL STATIONS TO BE PLOTTED ON THIS PROJECTION ON THE BACK OF THIS FORM. (DEG., MIN., SEC.)

- (16) GREATEST LATITUDE 59 ° 29 ' 30 " (PROJECTION LINE
- (17) LOWEST LATITUDE 59 ° 22 ' 00 " INTERVAL, PAGE 4
- (18) DIFFERENCE 07 ' 30 " (HYDRO MANUAL)
- (19) 00 ' 30 "
- (20) 15 YSN
- (21) GREATEST LONGITUDE 146 ° 26 ' 30 "
- (22) LOWEST LONGITUDE 146 ° 16 ' 00 "
- (23) DIFFERENCE 10 ' 30 "
- (24) 00 ' 30 "
- (25) 21 XSN

TRUSSO GRID

4-9047

H
Field No. E4-10-1-69 (20129)
Date 1-8-70

RUNNO FORM 1/8/70
SERIES II AND III PARAMETER CARDS

PARAMETER CARD II

Best major axis of the earth	6,378,206.4	ROA	1 2 3 4 5 6 7 8 9 0	6 3 7 8 2 0 6 4 0 0
X Constant - Distance from central meridian to origin of plotter SP 5	_____ meters	YON	1 2 3 4 5 6 7 8 9 0	11 12 13 14 15 16 17 18 19 20
Y Constant - Distance from equator to origin of plotter SP 271	_____ meters	YKN	1 2 3 4 5 6 7 8 9 0	21 22 23 24 25 26 27 28 29 30
Central Meridian of Projection	1462100	CMR	1 2 3 4 5 6 7 8 9 0	31 32 33 34 35 36 37 38 39 40
Plotter Scale/Survey Scale	13098.6876 / 170,000	SCA	1 2 3 4 5 6 7 8 9 0	41 42 43 44 45 46 47 48 49 50
North/south axis of sheet - to correspond to (Y axis - 0)	_____	RYA		
Feet/Fathom Indicator	0 - feet 1 - fathom	FOR		51 52
H Identification No.		JN		53 54 55 56 57
		YR		0 9 0 0 4 1 7 5 9 6

POP - 1

PARAMETER CARD III

Lowest Lat. Intersection	59	22	00	YST	1 2 3 4 5 6 7 8 9 0	1 2 1 3 7 2 0 0 0 0
Lowest Long. Intersection	146	16	00	XST	1 2 3 4 5 6 7 8 9 0	11 12 13 14 15 16 17 18 19 20
Difference between Grid			30	DXY	1 2 3 4 5 6 7 8 9 0	21 22 23 24 25 26 27 28 29 30
Interval (Long)				XSN		31 32
Interval (Lat)				YSN		33 34

Computed
Punched
Sheet
MMA
MMA
MMA

Evans
HYDRO-SIGNAL CARDS

EDP NO.	NO.	LATITUDE	LONGITUDE	NAME	
20079	001	59274078	146180775	001	1
20079	002	59252055	146205352	002	1
20079	003	59273555	146181517	003	1
20079	004	592711793	146180660	004	1
20079	005	59244602	146214729	005	1
20079	006	59252669	146210780	006	1
20079	007	59275642	146182330	007	1
20079	008	59260659	146195804	008	1
20079	009	59261764	146193267	009	1
20079	010	59273997	146183142	010	1
20079	011	59272469	146184101	011	1
20079	012	59270818	146190444	012	1
20079	013	59264120	146192246	013	1
20079	014	59262042	146194098	014	1
20079	015	59260042	146202823	015	1
20079	016	59253949	146212099	016	1
20079	017	59251522	146215364	017	1
20079	018	59243128	146220862	018	1
20079	019	59242320	146214145	019	1
20079	020	59243141	146205641	020	1
20079	021	59241839	146202427	021	1
20079	022	59245571	146200831	022	1
20079	023	59251726	146193437	023	1
20079	024	59255842	146190076	024	1
20079	027	59274569	146180114	027	1
20079	028	59281764	146182204	028	1
000000	100	59 24 3000	146 263000	100	

APP 029

59 24' 32.64" 146° 15' 16" 1970

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 16, 1970

~~XXXXXXXXXXXXXXXXXXXX~~ Pacific Marine Center

Plane of reference approved ~~M~~
~~XXXXXXXXXXXXXXXXXXXX~~ for Tide tape printout

HYDROGRAPHIC SHEETS 9047, 9049 & 9053

Locality: Middleton Island, Alaska

Year
~~XXXXXXXXXX~~ 1969

Plane of reference is mean lower low water

Tide Station Used (Form C&GS-681):

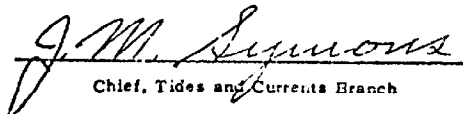
Middleton Island

Cordova

at the working grounds
Height of Mean High Water above Plane of Reference is as follows:

9.4 feet

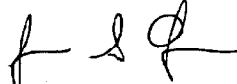
Remarks


Chief, Tides and Currents Branch

APPROVAL SHEET

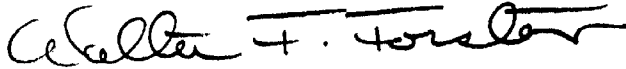
The smooth sheet has been inspected, is complete, and meets the requirements of the General Instructions for automated surveys and the Hydrographic Manual. (Note: All exceptions are listed in the Verifier's Report)

Examined and approved,

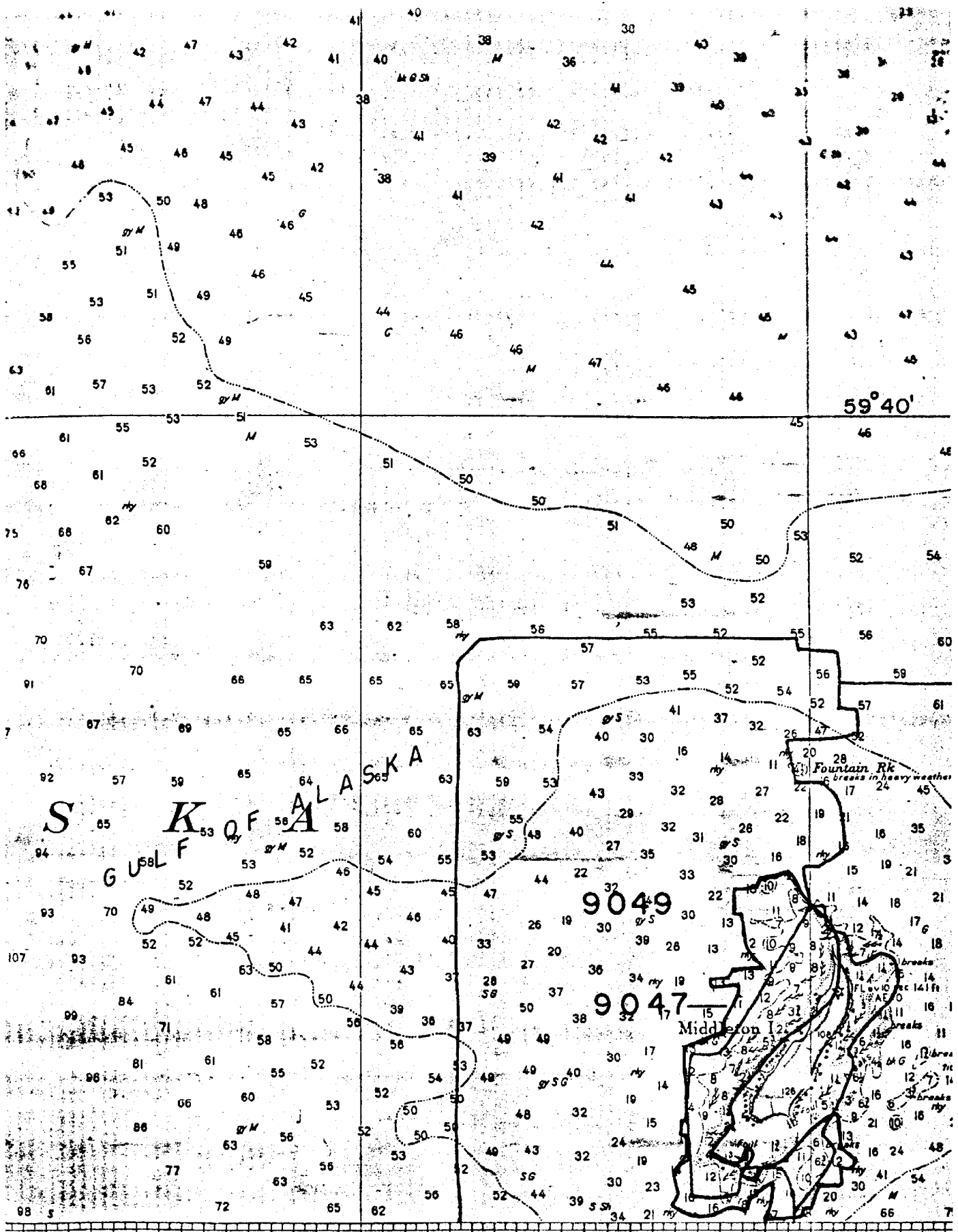


James S. Green
Supervisory Cartographic Technician

Approved and forwarded,



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



59° 40'

S GULF OF ALASKA

Fountain Rk
breaks in heavy weather

Middleton Is

9049

9047

50'

40'

146° 30'

20'
(CONTINUED ON CHART 8502) Chart-8551