9370

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 HYDROGRAPHIC

Field No. DA-10-1-73

Office No. H-9370

LOCALITY

State Alaska

General Locality Felice Strait

Locality Vegas Islands to Ryus Bay

19 73

CHIEF OF PARTY
Michael H. Fleming

LIBRARY & ARCHIVES

DATE September 6, 1978

☆ U.S. GOV. PRINTING OFFICE: 1976—669-441

9370

Area 6
CAT
17420 - 8102
17434 - 8075 & small

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

H-9370

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.

DA-10-1-73

State: Alaska

General locality: Felice Strait

Locality: Vegas Islands to Ryus Bay

Scale: 1:10,000 Date of survey: March 8-April 19, 1973

Instructions dated: December 5, 1972 Project No.: OPR-424-DA-73

Vessel: NOAA Ship DAVIDSON, Launch DA-1 and DA-2

Chief of party: CDR M. H. Fleming

Surveyed by: LT Efrem Krisher, LT Ronald Crozier, LT Roger Hewitt

Soundings taken by echo sounder, ~~hand lead/pole~~: Ross Fineline Model 544, S/N 1053
Raytheon DE 723, S/N 214

Graphic record scaled by: DAVIDSON personnel

Graphic record checked by: DAVIDSON personnel

Positions verified by: Dennis L. Duffy Automated plot by: PMC Xynetics Plotter

Soundings

Verification by: Dennis L. Duffy

Soundings in fathoms and tenths at ~~XXX~~ MLLW

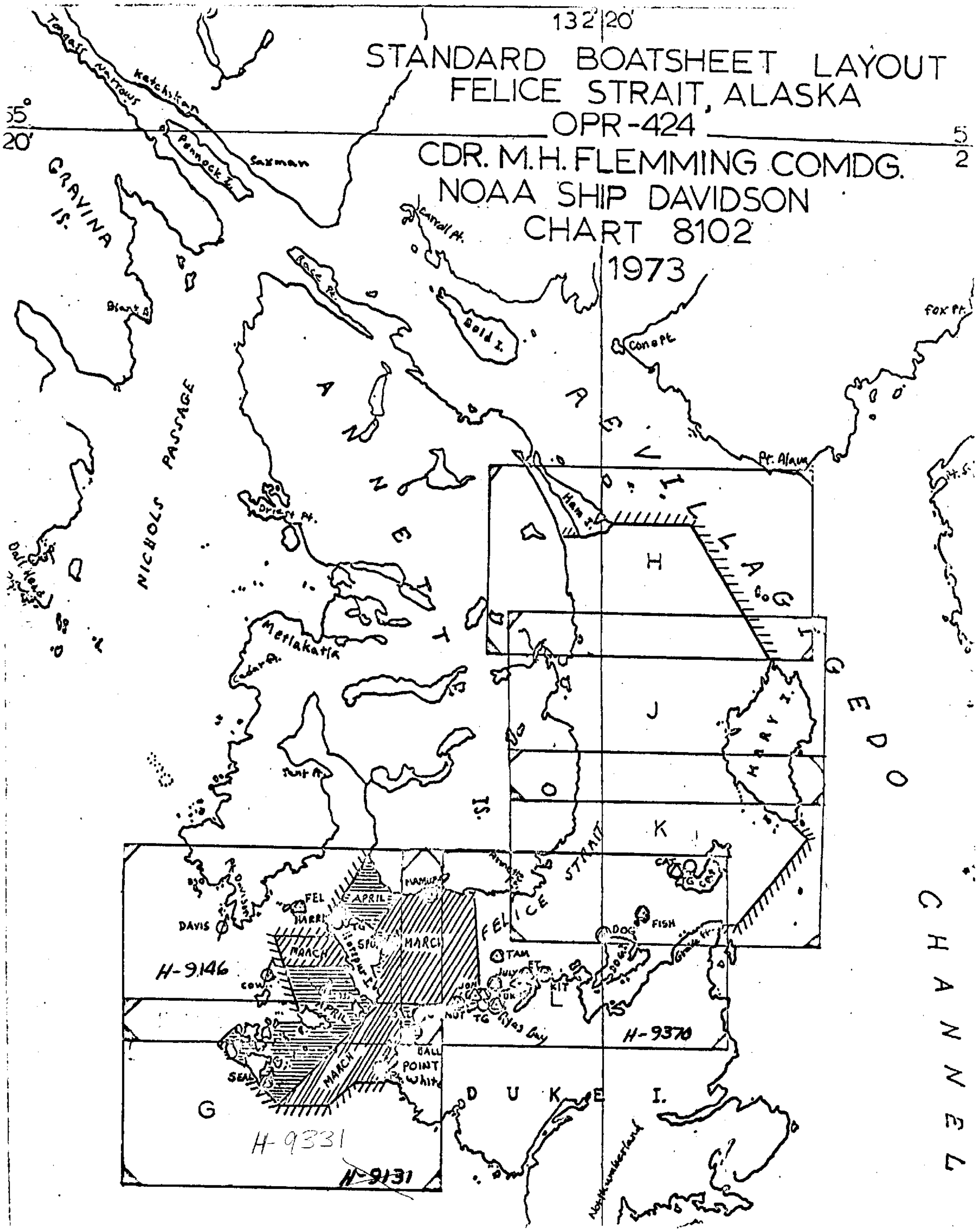
REMARKS:

This survey is incomplete.

Updated to stds 2/23/79

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—665-661/1222 REGION NO. 6



STANDARD BOATSHEET LAYOUT
FELICE STRAIT, ALASKA
OPR-424
CDR. M.H. FLEMMING COMDG.
NOAA SHIP DAVIDSON
CHART 8102
1973
132°20'
55° 20'
Tongass Narrows
Ketchikan
Pennock I.
Saxman
GRAVINA IS.
NICHOLS PASSAGE
ANNETTE IS.
REVILLAGIGEDO CHANNEL
Metlakatla
Bold I.
Race Pt.
Carroll Pt.
Cone Pt.
Fox Pt.
Pt. Alava
Ham I.
MARY I.
FELICE STRAIT
DUKE I.
H
J
K
L
G
H-9146
H-9370
H-9331
H-9131
APRIL
MARCH
DAVIS
FEL
CAT
FISH
DOG
TAM
KIT
SEAL
POINT

DESCRIPTIVE REPORT

H-9370

DA-10-1-73

WESTERN FELICE STRAIT

A. PROJECT

This survey was accomplished in accordance with Project Instructions OPR-424-DA-73, Felice Strait, Southeast Alaska dated December 5, 1972, Supplement to Instructions dated December 21, 1972 and the PMC OP ORDERS.

B. AREA SURVEYED

The area surveyed is the western portion of Felice Strait, from 131° 24'30"W to 131° 28'30" W. This survey junctions with contemporary surveys H-9184 (~~DA-73~~) and H-9331 (DA-73.) The prior surveys for the area are H-3717 and H-3781. The survey was accomplished during March and April 1973.

C. SOUNDING VESSELS

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

VESSEL	POSITION COLOR
Launch DA-1	Red
Launch DA-2	Blue
NOAA Ship DAVIDSON	Brown

See Appendix for abstract of positions.

D. SOUNDING EQUIPMENT

VESSEL	FATHOMETER #	TYPE
Launch DA-1	214	Raytheon DE-723
Launch DA-2	1053	Ross 544
NOAA Ship DAVIDSON	1284	Raytheon DE-723

Echo sounder corrections were determined from daily bar checks, phase comparisons and water conductivity measurements from a MARTEK metering system. As the phase error was less than 1/2% of the depth at the maximum (0.2 fathoms in 80 fathoms), it was not compensated for on the TRA/TC/TI corrector tape.

D. Continued

All soundings are in fathoms or fathoms and tenths. Soundings are referenced to MLLW using predicted tides for Tamgass Harbor and 120° W time meridian for the entire survey. See "Correction to Echo Sounders OPR-424 March-April 1973"

E. SMOOTH SHEET

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

F. CONTROL

Motorola Mini-Ranger, a range-range line of sight system and standard visual three-point sextant fixes were used for control on this survey. Ten signals were placed over triangulation, 14 signals were located photogrammetrically by shipboard personnel and two signals were located by ground methods. Miniranger transponders were located at the following positions:

STATION	NUMBER	POSITION	ARC COLOR
DOG	1	Lat. 54°59.72'N Long. 131°19.93'W	Green
NUT	2	Lat. 54°58.15'N Long. 131°27.60'W	Red
NAMUR RM1, 1973	3	Lat. 55°00.83'N Long. 131°27.30'W	Blue

The position of NAMUR RM1 was originally plotted incorrectly on the boatsheet by approximately 1mm, and the arcs were plotted from this position. No attempt was made to replot the soundings and this should be considered during verification.

Miniranger calibration was accomplished using three point sextant fixes and check angles. For further information see "Miniranger Report OPR-424 March-April 1973".

G. SHORELINE

Shoreline features, ledges and reef areas were traced on to the boat-sheet from the following manuscripts:

T-12458	T-12460
T-12452	T-12453
T-12454	T-12455
T-12459	

Verification of the shoreline on T-12458 and T-12452 was carried out by shipboard personnel and covered in a separate report "Field Edit OPR-424-73. All applicable changes have been made to the boat sheet.

H. CROSSLINES

The percentage of crosslines to lines of sounding is 6%, 6.5nm compared to 117nm. Crosslines are in good agreement.

I. JUNCTIONS

Junction was made with H-9184 (DA-73) to the west and H-9331 (DA-73) to the southwest. Agreement was good at all junctions.

J. COMPARISON WITH PRIOR SURVEY

A comparison was made with H-3717 (1914) and H-3781 (1915). Soundings were in good agreement considering the smaller scale, lack of developments and more primitive methods with the following exceptions:

1. The 64 fathom area at 55° 00'N. 131°28.2'W shows a present depth of 58 fathoms with the present day 60 fathom curve 0.2'W of the prior survey indicating shoaling in the area. Chart present depths

2. In the channel between the Vegas Islands and Duke Island at 54° 58.03N, 131°27.3'W an 11 fathom area shows a present maximum depth of 10.7 fathoms indicating shoaling.

There were 2 numbered pre-survey review items and 14 dashed circle items in the survey area:

1. Pre-survey review item 4, Sunken rock symbol charted at 55°00.59'N 131° 25.32'W. The shoalest sounding obtained was 2.8 fathoms at 55° 00.58'N, 131° 25.43'W. Delete charted submerged rock and chart present survey depths

2. Pre-survey review item 11. Pile charted at 54°58.11', 131°25.03'. Due to a lack of time a complete investigation was not made. However, no evidence of the pile was seen during hydrography or field editing. See Verifier's Report-section VI-B

3. The least depth in the reported 17 fathom area was 17.7 fathoms at 54°58.53', 131°27.05'.

4. The least depth in the reported 24 fathom area was 19.7 fathoms at 54°58.84', 131° 27.10'.

5. The least depth in the reported 4-3/4 fathom area was 4.8 fathoms at 55°00.35', 131°27.25'.

6. The least depth in the reported 8 fathoms area was 8.9 fathoms at 55°00.33', 131°25.22'.

7. The least depth in the reported 8 fathoms area was 5.5 fathoms at 55°00.12', 131° 25.35'.

8. The least depth in the reported 10 fathom area was 8.7 fathoms at 54° 59.45', 131°25.67'.

J. COMPARISON WITH PRIOR SURVEY (CONTINUED)

9. The least depth in the reported 5 fathom area was 4.~~8~~ 8 fathoms at 54°59.~~37~~ 5', 131°25.~~05~~ 29'.

10. The least depth in the 3-1/4 fathom area was 1.~~2~~ 4 fathoms at 54° 57.9', 131°25.7'.

11. No evidence of the 1-3/4 fathom shoal at 54°58.12', 131° 25.~~45~~ 30' was seen. However no development was made. 1.3 found

12. The least depth in the reported 17 fathom area was ~~7.0~~ 12.8 fathoms at 54°58.~~38~~ 44', 131°25.~~30~~ .63'.

13. The least depth in the reported 4-1/2 fathom area was 3.~~8~~ 7 fathom at 54°58.25', 131° 25.~~27~~ 4'.

14. The reported 1/4 fathom sounding was a rock barel ft. at 0830 4/20/73 at 54°58.03', 131° 24.78'.(See T-12549)

15. The least depth in the reported 8 fathom area was ~~4.7~~ 5.0 fathom at 54°58.30', 131°~~24.98~~ 25.15'.

16. The least depth in the reported 10 fathom area was ~~8.8~~ 9 fathoms at 54° 58.0~~2~~ 3', Long. 131.24.~~98~~ 89'. 8.8

K. COMPARISON WITH CHART

A comparison was made with chart 8075, 5th edition.

All descrepancies have been covered in "Comparison with Prior Survey" with the exception of the following:

The 7-1/2 fathom area at 54°58.38', 131°24.87' shows a least depth of 6.~~0~~5 fathoms.

L. ADEQUACY OF SURVEY

Hydrography is incomplete on that portion of the boatsheet surveyed with several developments remaining. The survey is adequate to supercede prior surveys.

M. AIDS TO NAVIGATION

One fixed aid, Ajax Reef Light, was located by resection and form 76-40 submitted. No other aids exist, fixed or floating with in the survey area.

N. STATISTICS

VESSEL	NO. OF POSITIONS	N.M. OF SOUNDING LINES	B.S.	D.P.'s.
NOAA Ship DAVIDSON			28	
Launch DA-1	319	32.7		3
Launch DA-2	851	99.2	1	

Total area surveyed is 6.0 square nautical miles. There are 9 sounding and position tapes, 1 bottom sample tape, 1 D.P. tape, 2 TRA/TC/TI tapes, 1 velocity table tape, and 1 signal overlay tape.

O. MISCELLANEOUS

Data was logged in both the ASCII & BCD formats. Tapes 1,2,4 and 6 which were originally logged on DA-2's automatic logging system were relogged in BCD due to ship's personnel inexperience with the teletypes. In the relogging position information was logged only for the fixes and not onintermediate soundings as was logged on the on line tapes, with the exceptions of positions 608-734. These positions are the 0 curve on the north side of Felice Strait. Only the soundings on the positions were plotted due to the spacing . If intermediate soundings are required, the actual position data should be used rather than assuming straight lines between fixes due to the constant turning necessary to avoid reefs, rocks etc.

P. RECOMMENDATIONS

Pre-survey review item 11 should be further investigated. Necessary splits in the survey area and additional crosslines should be completed.

Q. REFERENCE TO REPORTS

Correction to Echo Soundings, OPR-424, 1973
Field Edit Report, OPR-424, 1973
Mini Ranger Report, OPR-424, 1973

Respectfully Submitted

Efrem R. Krisher

Efrem R. Krisher
LT, NOAA

APPENDIX

A	Tide Note
✓B	Abstract of Positions
C	List of Signals
D	Form 1 & 3
✓E	TRA/TC/TI Tape Printout
F	Velocity Tables
G	Form 76-10 Ajax Reef Light
H	Approval Sheet
✓ I	Bottom Sediment data (Log Sheet M)

✓= Misc. items removed and filed in the cahier

TIDE NOTE

OPR-424

The reference tide gage for this project was the Standard gage located at the U.S. Coast Guard Base, Ketchikan, Alaska. Field tide reduction of soundings was based on predicted tides for Tamgas Harbor, Annette Island.

Three Bristol bubbler tide gages were installed in the project area. Location and period of operation were as follows:

CAT ISLAND	55°01'42"N 131°16'06"W	8 Mar - 13 Apr 1973 37 Days
RYUS BAY	54°57'48"N 131°25'18"W	5 Mar - 20 Apr 1973 47 Days
HOTSPUR ISLAND	54°59'57"N 131°31'52"W	2 Mar - 20 Apr 1973 50 Days

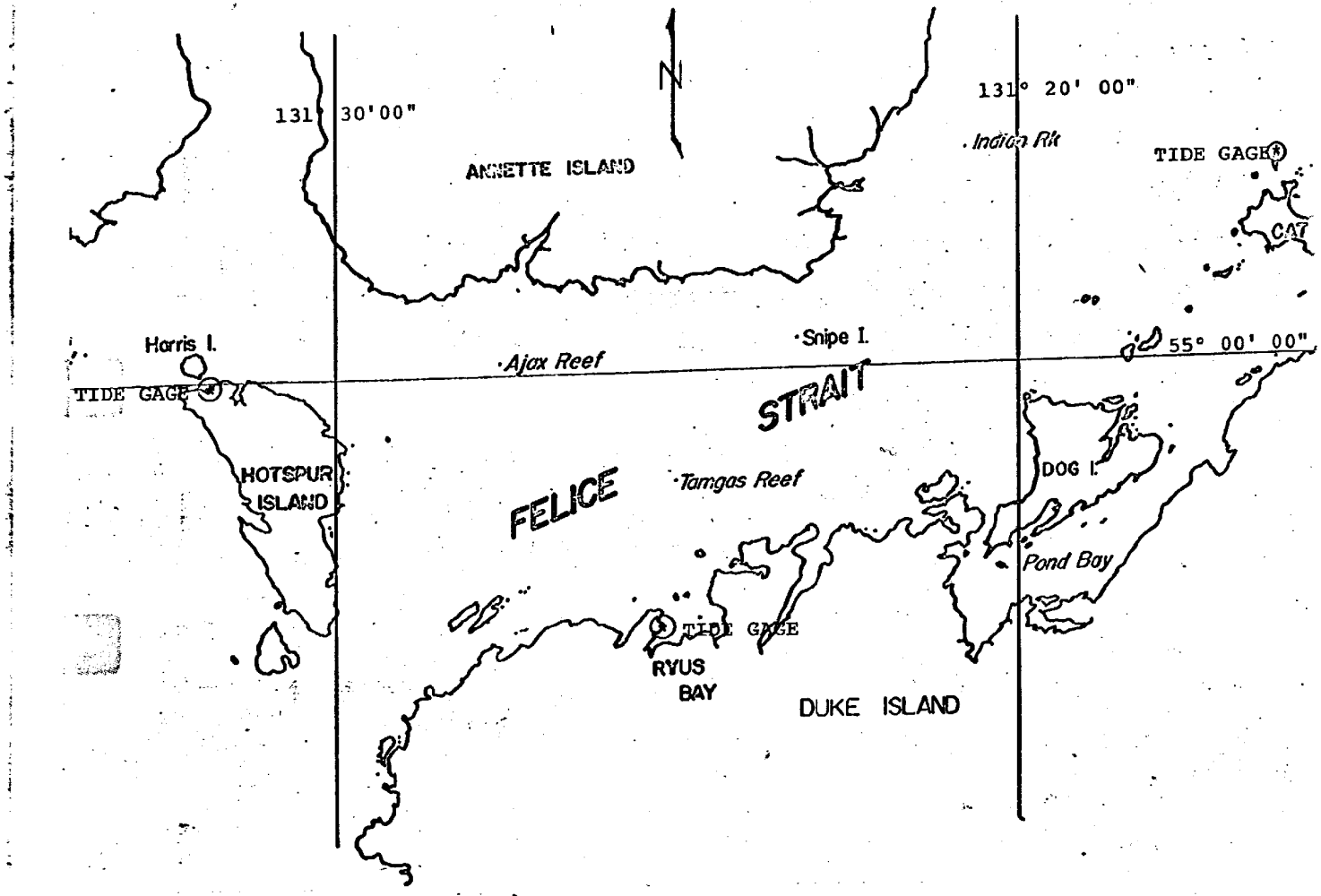
All gages operated on 120°W time for the duration of this project.

Marigrams were corrected for time and height variations. Wave action was meaned where ever possible.

CAT ISLAND - S/N 62A91; 0-30 ft range
Five benchmarks connected on 8 March 1973
Marigram reading 5.0' above staff zero
Gage removed 13 April 1973

RYUS BAY - S/N 68A9337; 0-30 ft range
Three benchmarks connected on 6 March 1973
Marigram reading 7.0' above staff zero
Gage removed 20 April 1973

HOTSPUR ISLAND - S/N 64A11028; 0-30 ft range
Five benchmarks connected on 6 March 1973
Marigram reading 0.0' above staff zero
Gage removed 20 April 1973


131° 30' 00"
131° 20' 00"
ANNETTE ISLAND
Indian Rk
TIDE GAGE
CAT
Harris I.
Snipe I.
55° 00' 00"
Ajax Reef
TIDE GAGE
STRAIT
HOTSPUR ISLAND
FELICE
Tamgas Reef
DOG I.
Pond Bay
TIDE GAGE
RYUS BAY
DUKE ISLAND

TABLES OF CORRECTIONS TO ECHO SOUNDERS OPR-424 1973

VELOCITY CORRECTION TABLES

SURVEYS H-9184, H-9331, H-9370

Velocity Table 1

Fathometer #214 March 1973 (Launch DA-1)

FROM	TO	CORRECTION
0.0 fm	0.5 fm	-0.2 fm
0.6 fm	3.7 fm	-0.1 fm
3.8 fm	63.0 fm	0.0 fm
63.1 fm	Deeper	0.1 fm

Velocity Table 2

Fathometer #214 April 1973 (Launch DA-1)

FROM	TO	CORRECTION
0.0 fm	0.4 fm	-0.2 fm
0.5 fm	2.9 fm	-0.1 fm
3.0 fm	13.0 fm	-0.0 fm
13.1 fm	30.5 fm	0.1 fm
30.6 fm	47.6 fm	0.2 fm
47.7 fm	61.2 fm	0.3 fm
61.3 fm	Deeper	0.4 fm

Velocity Table 3

Fathometer #1053 March 1973 (Launch DA-2)

FROM	TO	CORRECTION
0.0 fm	5.0 fm	-0.1 fm
5.1 fm	63.0 fm	0.0 fm
63.1	Deeper	0.1 fm

Velocity Table 4

Fathometers #1053 and 1048 April 1973 (Launch DA-2)

FROM	TO	CORRECTION
0.0 fm	4.0 fm	-0.1 fm
4.1 fm	13.0 fm	0.0 fm
13.1 fm	30.5 fm	0.1 fm
30.6 fm	47.6 fm	0.2 fm
47.7 fm	61.2 fm	0.3 fm
61.3 fm	Deeper	0.4 fm

SIGNAL TAPE LISTING
DA 10-1-73
H-9370

313 067 1973

1914

005	55	00	1563	131	27	0321	AAA NAMUR RM L 1973 MINI RANGER 3
007	54	59	0904	131	29	0225	AAA ~~SPUR 1914~~ 1973 Triangulation
009	54	58	0267	131	27	0650	AAA NUT 1915 MINI RANGER 2
012	54	57	1328	131	27	0765	AAA ~~COAL 1915~~ 1978 Triangulation
013	54	57	0632	131	28	0711	AAA BALL 1915 1973 Triangulation spherical bldg 5' diameter
058	54	59	1336	131	19	0992	AAA ~~DOG 1914-1915~~ MINI RANGER 1
079	54	58	1252	131	22	0534	AAA KIT 1914+1915 1973
082	54	59	0170	131	25	0043	AAA ~~TAM 1915~~ ~~1973 Triangulation~~ Highest point of NE reef
084	54	57	1697	131	24	0734	AAA DRUG 1915 1973 Triangulation
086	54	58	0012	131	25	0340	AAA ~~FORM 1915~~ 4.30
087	54	58	0154	131	25	0676	AAA JON 1915 1973 Triangulation Highest reef
106	54	57	1608	131	28	0311	AAA T12458
107	54	57	1665	131	27	0902	AAA T12458
108	54	57	1536	131	27	0306	AAA T12458
109	54	58	0088	131	27	0561	AAA T12458
110	54	58	0350	131	27	0053	AAA T12458
111	54	57	1810	131	26	0715	AAA T12458
113	54	57	1459	131	24	0980	AAA T12459
114	54	57	1588	131	24	0493	AAA T12459
115	54	58	0171	131	24	0691	AAA T12459
136	54	57	1262	131	25	0360	AAA T12459
140	55	00	0191	131	27	0663	AAA T12452 Ajax Reef Light
148	54	58	0805	131	24	0739	AAA T12459
149	54	58	0178	131	24	0613	AAA T12459
168	54	57	1525	131	25	0882	AAA T12458
169	54	57	1626	131	26	0064	AAA T12458

A FORM 76-40
(1)
SCRIBED BY
TOGRAMMETRY INSTRUCTION NO. 64.

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

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- ☐ FIELD INSPECTION
- ☒ FIELD EDIT
- ☐ COMPILATION
- ☐ FINAL REVIEW
- ☐ QUALITY CONTROL AND REVIEW

(See reverse for responsible personnel)

☐ TO BE CHARTED
☐ TO BE DELETED

ORIGINATING LOCATION: NOAA Ship Davidson (CSS-31)

DATE: 17 April 73

e following objects have (have not) been inspected from seaward to determine their value as landmarks:

B NUMBER: PH- 6310
ATE:

SURVEY NUMBER: T - 12452
TP-

DATUM: North American 1927

HARTING NAME	DESCRIPTION	POSITION LATITUDE ° ′	LATITUDE ″ D.M. METERS	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. METERS	METHOD AND DATE OF LOCATION (See instructions on reverse of this form) FIELD INSPECTION	COMPILATION	FIELD EDIT	CHARTS AFFECTED
LIGHT	Ajax Reef Light	N 55 00	06.166 190.7	W 131 27	37.297 663.0			F.4 a	8075
	See L-139/79							17 April 73	

APPROVAL SHEET

HYDROGRAPHIC SURVEY

DA-10-1-73

H-9370

OPR-424-DA-72

Western Felice Strait

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

Michael H. Fleming
Commander, NOAA
Commanding Officer
NOAA Ship DAVIDSON CSS-31

10/15/74

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): Ryus Bay

Period: March 5 - April 20, 1973

HYDROGRAPHIC SHEET: H9370

OPR: 424

Locality: Felice Strait, Southeast Alaska

Plane of reference (mean lower low water): 7.1 ft.

Height of Mean High Water above Plane of Reference is 13.9 ft.

Remarks: Zone direct.

James R Hubbard
for Chief, Tides Branch

NOAA FORM 76-155 (11-72)

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

SURVEY NUMBER
H-9370

GEOGRAPHIC NAMES

Name on Survey	A ON CHART NO. 8075	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	Topographic Manuscript	
AJAX REEF	X									1
ANNETTE ISLAND	X									2
ANNETTE POINT	X									3
DRUG ISLAND									12459	4
DUKE ISLAND	X									5
EMMET ISLAND	X									6
FELICE STRAIT	X									7
FORM POINT	X									8
GOOSE TONGUE ISLAND									12458	9
HELEN ISLAND	X									10
JULIUS REEF	X									11
ROY ISLAND									12458	12
RUTH ISLAND									12459	13
RYUS BAY	X									14
TAMGAS REEF	X									15
VEGAS ISLANDS	X									16
										17
										18
										19
						APPROVED				20
						Chas. E. Harrington				21
						CHIEF GEOGRAPHER			C3x8	22
						18 Oct. 1978				23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

☆ U.S. G.P.O. 1972-769-565/516 REG.#

NOAA FORM 77-27 (5-77) | U. S. DEPARTMENT OF COMMERCE NOAA | HYDROGRAPHIC SURVEY NUMBER

HYDROGRAPHIC SURVEY STATISTICS

H-9370

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS & PRELIMINARY OVERLAYS	6
DESCRIPTIVE REPORT	1	SMOOTH OVERLAYS: POS, ARC, EXCESS	2

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

T-SHEET PRINTS (List) T-12452, T-12453, T-12458, T-12459

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	AMOUNTS: VERIFICATION	AMOUNTS: TOTALS
POSITIONS ON SHEET			1230
POSITIONS CHECKED		1230	
POSITIONS REVISED		333	
SOUNDINGS REVISED		293	
SOUNDINGS ERRONEOUSLY SPACED			
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED			
	TIME – HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	2		
VERIFICATION OF CONTROL		15	
VERIFICATION OF POSITIONS		20	
VERIFICATION OF SOUNDINGS		141	
COMPILATION OF SMOOTH SHEET		12	
APPLICATION OF TOPOGRAPHY		31	
APPLICATION OF PHOTOBATHYMETRY			
JUNCTIONS		4	
COMPARISON WITH PRIOR SURVEYS & CHARTS		16	
VERIFIER'S REPORT		12	
OTHER		8	
TOTALS	2	259	261

Pre-Verification by Nicholas Lestenkof	*Beginning Date* 1/4/74	*Ending Date* 1/4/74
Verification by B.A. Olmstead, G.E. Kay, D.L. Duffy	*Beginning Date* 2/19/74	*Ending Date* 2/9/78
Verification Check by A.E. Eichelberger, J.S. Green	*Time (Hours)* 34	*Date* 6/5/78
Marine Center Inspection by HIT	*Time (Hours)* 18	*Date* 7/25/78
Quality Control Inspection by R.W. Wellman	*Time (Hours)* 44	*Date* 10-16-78
Requirements Evaluation by D.J. Hill	*Time (Hours)* 4	*Date* 1/9/79

Cmdr. J.K. Myers 6/16/78

REGISTRY NO. _____

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

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

CARDS CORRECTED

DATE_____ TIME REQUIRED_____ INITIALS_____

REMARKS:

REGISTRY NO. H-9370

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

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

MAGNETIC TAPE CORRECTED

DATE_____ TIME REQUIRED_____ INITIALS_____

REMARKS:

PACIFIC MARINE CENTER
VERIFIER'S REPORT

REGISTRY NO: H-9370 FIELD NO: DA-10-1-73

Alaska, Felice Strait, Vegas Islands to Ryus Bay

SURVEYED: March 8-April 19, 1973

SCALE: 1:10,000 PROJECT NO: OPR-424

SOUNDINGS: Raytheon Fathometer
Ross Fineline Fathometer

CONTROL: Range-Range
Mini-Ranger - Visual

Chief of Party.....CDR M.H. Fleming
Surveyed by.....LT E. Krisher, LT R. Crozier, LT R. Hewitt
Automated plot by.....Xynetics Plotter (PMC)
Verified by.....Dennis L. Duffy
February 9, 1978

I. INTRODUCTION

H-9370 is an incomplete basic survey conducted from March 8 to April 19, 1973 by the DAVIDSON. The area surveyed is in Felice Strait from Vegas Islands to Ryus Bay, Alaska. Since completion of this survey is not planned in the foreseable future, the 1973 data has been verified and is forwarded for chart application.

Unusual problems encountered in the verification of H-9370 are documented in applicable sections of this report.

Projection parameters used to prepare the boatsheets have been revised to center hydrography on the smooth sheet. Parameters used by PMC are appended in the smooth printout. All correctors used to plot and reduce soundings on H-9370 can be located in the smooth printout.

II. CONTROL AND SHORELINE

Horizontal control is adequately described in Section F of the Descriptive Report.

The following unreviewed manuscripts, with their respective dates of photography and field edit (where applicable) were used for this survey:

T-12452	Class I	1963, 69-73	T-12458	Class I	1969, 70-73
T-12453	Class III	1969	T-12459	Class III	1969, 70

(See Q.C. Report - item 1)

III. HYDROGRAPHY

A. Crosslines are in generally good agreement, within one fathom in most areas.

B. Standard depth curves could be adequately drawn in the completed portion of this survey except in congested areas near the shoreline and reefs. No attempt was made to contour the two sounding lines extending eastward of main scheme hydrography at Latitudes 54°59'10"N and 55°00'10"N ~~on~~ or along the shoreline east of Longitude 131°24'47"W. (See Q.C. Report-item 2)

Ledge limits were extended seaward to coincide with the 0 fathom curve in most cases. Minus sounding falling inside ledge limits were put into excess.

C. Basic hydrography is adequate to delineate bottom configurations and determine least depths. There were no major difficulties encountered in the verification of main scheme hydrography. (See Q.C. Report-item 3)

There were 29 bottom samples taken in this survey.

IV. CONDITION OF SURVEY

With the following exceptions, hydrographic records, overlays, smooth sheet and reports ~~and~~ adequate and conform to requirements of the Provisional Hydrographic Manual:

A
~~a~~) An initial corrector was erroneously applied to the TC-TI tape to adjust sounding values digitized by the Ross Fathometer on Launch DA-2.

B
~~b~~) The ship did not make recommendations for disposal of Pre-Survey Review items.

c) (See Q.C. Report-item 3)

V. JUNCTIONS

This survey junctions to the west with H-9146, 1:10,000 (1972-73). Soundings and depth curves are in very good agreement and the junction note is inked. (See Q.C. Report-item 5)

Junction was also accomplished to the southwest with H-9331, 1:10,000 (1972). Depth curves and soundings agree well and the junction note is inked.

There are no contemporary surveys to the east of the completed portion of H-9370.

VI. COMPARISON WITH PRIOR SURVEYS

A
H-3717 (1914) 1:20,000
H-3781 (1915) 1:20,000
H-3781A (1915) 1:10,000

Soundings on H-9370 ~~are~~ generally vary by ± 1 to 2 fathoms vis-a-vis ~~shoaler than~~ those on the prior surveys. The most serious discrepancies are pre-survey review items and are discussed subsequently on this section of this report. (See Q.C. Report - item 6)

Several soundings, rocks awash, a pile and ~~a~~ submerged rocks not disproven by H-9370 were transferred from the prior surveys to supplement hydrography on H-9370.

With the above additions, H-9370 is adequate to supersede prior surveys in common areas of hydrography.

B. H-3708 WD (1914) 1:20,000

(See Q.C. Report - item 7)

The only item charted from H-3708 WD. is PSR item #4, a submerged rock charted at 55°00.59'N, 131°25.32'W. No specific investigation was made to verify or disprove this item. ~~Thus it was transferred to H-9370 in green ink. Retention on the chart is recommended.~~ source document and imprecisely positioned on the is considered discredited. It should be deleted from the chart and present survey depths should be charted.

PSR #11 "Pile" charted at 54°58.18'N, 131°25.08'W.

This pile originated with H-3781A and was not investigated on H-9370. ~~It is depicted in brown ink on H-9370.~~ It is recommended that the pile be ~~retained on~~ deleted from the chart. (See Q.C. Report - item 8)

The following is a list of the dashed circle PSR items for the completed portion of H-9370: (See Q.C. Report - item 7)

Charted Depth	Charted G.P.	Source	H-9370 Depth	H-9370 G.P.
17	54°58'30"N, 131°27'46"W	H-3781*	17.7	54°58'31.5"N, 131°27'59.6"W
24	54°58'48"N, 131°27'02"W	H-3781	19.7	54°58'50.5"N, 131°27'06.5"W
4 3/4	55°00'23"N, 131°27'23"W	H-3717*	5.0	55°00'20.7"N, 131°27'16.4"W
8	55°00'20"N, 131°25'21"W	H-3717*	9.0	55°00'20.5"N, 131°25'13.0"W
8	55°00'12"N, 131°25'29"W	H-3717	5.6	55°00'06.8"N, 131°25'21.5"W
10	54°59'25"N, 131°25'42"W	H-3717	5.4	54°59'27.5"N, 131°25'41.4"W
5	54°59'18"N, 131°25'18"W	H-3717	4.8	54°59'20.9"N, 131°25'17.5"W
3 1/4	54°57'55"N, 131°25'46"W	H-3781A	1.4	54°57'54.8"N, 131°25'41.9"W
1 3/4	54°58'07"N, 131°25'29"W	H-3781A*	1.3	54°58'07.3"N, 131°25'32.0"W
17	54°58'55"N, 131°25'36"W	H-3781	12.8	54°58'55.1"N, 131°25'37.6"W
4 1/2	54°58'15"N, 131°25'31"W	H-3781A	3.7	54°58'15.3"N, 131°25'28.9"W
1/4	54°58'02"N, 131°24'47"W	H-3781A	Rock Awash	54°58'02.0"N, 131°24'46.0"W
8	54°58'20"N, 131°25'06"W	H-3781A	5	54°58'18.3"N, 131°25'08.9"W
10	54°58'31"N, 131°25'00"W	H-3717	8.9	54°58'31.5"N, 131°24'58.7"W

Soundings denoted with an asterisk in the "Source" column in the preceding table were carried forward to H-9370 at the prior survey depth converted to fathoms and tenths. It is recommended that the remainder of the dashed circle PSR items be superseded by H-9370.

VII. COMPARISON WITH CHART

C&GS 8074, 11th Ed., Nov. 28, 1970, 1:40,000
C&GS 8075, 5th Ed., May 13, 1972, 1:80,000 and Ryus Bay Inset 1:20,000

A. Hydrography

The source was determined for most charted features and are designated as follows on the attached chartlets: (Chart sections removed during O.C. Inspection)

Black	H-3708 WD	(1914)
Red	H-3717	(1914)
Green	H-3781	(1915)
Blue	H-3781A	(1915)

(See Q.C. Report-item 9)

Because charted hydrography was identified as originating with prior surveys, discrepancies have been disposed of in Section VI, "Comparison with Prior Surveys". It is recommended that H-9370 supersede charted hydrography.

B. Controlling Depths

There are no controlling depths charted in the H-9370 survey area.

C. Aids to Navigation

Charted aids in the survey area adequately mark the features for which they are intended. NOAA Form 76-40 locating Ajax Reef Light is included in the Descriptive Report.

VIII. COMPLIANCE WITH PROJECT INSTRUCTIONS

The completed portion of this survey adequately complies with Project Instructions dated 5 December 1972, Change 1 dated 21 December 1972 and Change 2 dated 22 March 1973.

IX. ADDITIONAL FIELD WORK

This survey is considered a good basic survey. No additional field work is recommended at this time. When returning for further work in this area, the existing project layout should be modified for junction with this survey, as the data submitted is complete for the area surveyed.

Respectfully submitted,
Dennis L. Duffy
Cartographic Technician
February 9, 1978

Examined and approved,

James S. Green
Chief, Verification Branch

APPROVAL SHEET

FOR

SURVEY H- 9370

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position print-out has been made. A new final sounding print-out has been made.

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic Manual. Exceptions are listed in the verifier's report.

Date: 7/18/78

Signed: [signature]

Title: Chief, Verification Branch

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Pacific Marine Center, 1801 Fairview Ave. E.
Seattle, WA 98102

DATE: 28 July 1978

TO: Eugene A. Taylor
Director, Pacific Marine Center

FROM: Glen R. Schaefer
Chief, Processing Division

SUBJ: PMC Hydrographic Inspection Team Report for Survey H-9370

This survey is a basic hydrographic survey of Vegas Islands to Ryus Bay, Felice Strait, Alaska. This survey was conducted by NOAA Ship DAVIDSON in 1973 in accordance with Project Instructions OPR-424-DA-73 dated 5 December 1972 and Change Nos. 1 and 2 dated 21 December 1972 and 22 March 1973, respectively.

It is recommended that future Project Instructions for the area in Felice Strait east of H-9370, include instructions to more fully portray the bottom in the area between Latitude 54°59'00"N and 55°00'30"N, east of Longitude 131°25'45"W, specifically in depths less than eleven fathoms. Also these instructions should include an investigation of the sunken rock at Latitude 55°00.59'N and Longitude 131°25.32'W.

The inspection team finds H-9370 to be a good basic survey adequate to supersede common areas of prior surveys and charted hydrography. Administrative approval is recommended.

Glen R. Schaefer

David B. MacFarland, Jr.

James W. Steensland

Stanley H. Otsubo

ADMINISTRATIVE APPROVAL
H-9370

The smooth sheet and reports of this survey have been examined and the survey is adequate for charting and to supersede common areas of prior surveys.

E. A. Taylor

Eugene A. Taylor, RADM
Director
Pacific Marine Center

9 Aug. 1978
Date

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

C352/KWW

October 16, 1978

TO: for A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

FROM: K. W. Wellman
Quality Evaluator

SUBJECT: Quality Control Report for H-9370 (1973), Alaska, Felice Strait, Vegas Islands to Ryus Bay

A quality control inspection of H-9370 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths and navigation hazards, junctions, shoreline transfer, decisions and actions by the verifier, and cartographic presentation of data.

In general, the present survey was found to conform to National Ocean Survey standards and requirements except as discussed in the Verifier's Report, the HIT Report, and as follows:

1. Reference section II of the Verifier's Report:

Section 7.3.4 of the Hydrographic Manual requires that only class I shoreline manuscripts are to be used as source for shoreline and topographic detail shown on the smooth sheet. The reasons for any departure from the accepted practice should be discussed in the Verifier's Report. No such discussion is included in the referenced section of the Verifier's Report.

Section II of the Verifier's Report is supplemented by the following:

The indicated class III shoreline manuscripts comprise the latest available coverage of the respective areas of the present survey. The shoreline in the areas of the class III manuscripts is shown on the present smooth sheet in pencil for orientation purposes only since it is subject to revision during subsequent processing of the topographic manuscripts.

2. Reference section III-B of the Verifier's Report:

Appropriate depth curve segments should have been inked in the vicinities of the two sounding lines discussed in the referenced section of the

Verifier's Report. Appropriate segments of depth curves were added during quality control inspection.

3. Sections III-C and IV of the Verifier's Report are supplemented by the following:

C. Numerous isolated shoal indications were not developed during field work in the area. (See sections 1.4.3 and 4.5.9 of the Hydrographic Manual--Fourth Edition.)

4. When information carried forward from a prior survey displaces a corresponding least depth on the present survey, a note and leader indicating the excessed present survey sounding and position should be lettered on the smooth sheet. (See section 6.3.7.3 of the Hydrographic Manual--Fourth Edition.) Appropriate lettering was added to the smooth sheet during quality control inspection.

5. Reference section V of the Verifier's Report:

The comments pertaining to the junction with H-9146 (1972-73) are considered misleading. In order to consider a junction complete, it is necessary to reconcile the affected depth curves and to ink the junctional note on both smooth sheets. Completion of the required procedures was not accomplished during verification. In addition, the referenced section of the Verifier's Report should have included comments pertaining to the additional work necessary to complete the junction. (See the memorandum dated March 21, 1977, from the Office of Marine Surveys and Maps entitled "Verifier's Report Format.") An adequate junction with H-9146 (1972-73) on the west was effected during quality control inspection.

6. Reference section VI-A of the Verifier's Report:

The text of the referenced section is lacking any indication of the probable cause(s) of the noted depth differences. (See section 6.6 (11) of the Hydrographic Manual--Fourth Edition.)

Section VI-A of the Verifier's Report is supplemented by the following:

Scattered indications of present depths as much as 5 fathoms shoaler than prior depths were noted in general depths exceeding 30 fathoms. The noted depth differences are attributed to natural causes and to the less detailed and less accurate methods employed on the prior surveys.

7. Reference section VI-B of the Verifier's Report:

There is no indication that a comparison between the present survey and H-3708 WD was actually accomplished. Further, the listing of dashed-circled

Presurvey Review items in the referenced section is superfluous since the items are discussed in section J of the Descriptive Report. (See the memorandum dated March 21, 1977, from the Office of Marine Surveys and Maps entitled "Verifier's Report Format.")

Section VI-B of the Verifier's Report is supplemented by the following:

There are no conflicts between present depths and cleared wire-drag depths.

8. Section VI-B of the Verifier's Report (Presurvey Review item 11) is supplemented by the following:

The referenced pile falls on the edge of a ledge on the present survey and is considered no longer extant. The chart should be revised to agree with the present survey.

9. Section VII-A of the Verifier's Report is supplemented by the following:

Attention is directed to the following:

(1) The rock awash charted in the vicinity of latitude 54°57.95', longitude 131°25.95' originates with H-3717 (1914). The rock is plotted in error on the source document and should be deleted from the chart.

(2) The rock awash charted in the vicinity of latitude 55°00.74', longitude 131°27.25' originates with T-3472 (1914). It is one of three rocks shown on the source document which are considered to be plotted in error. The referenced rock is discredited by the present survey and should be deleted from the chart.

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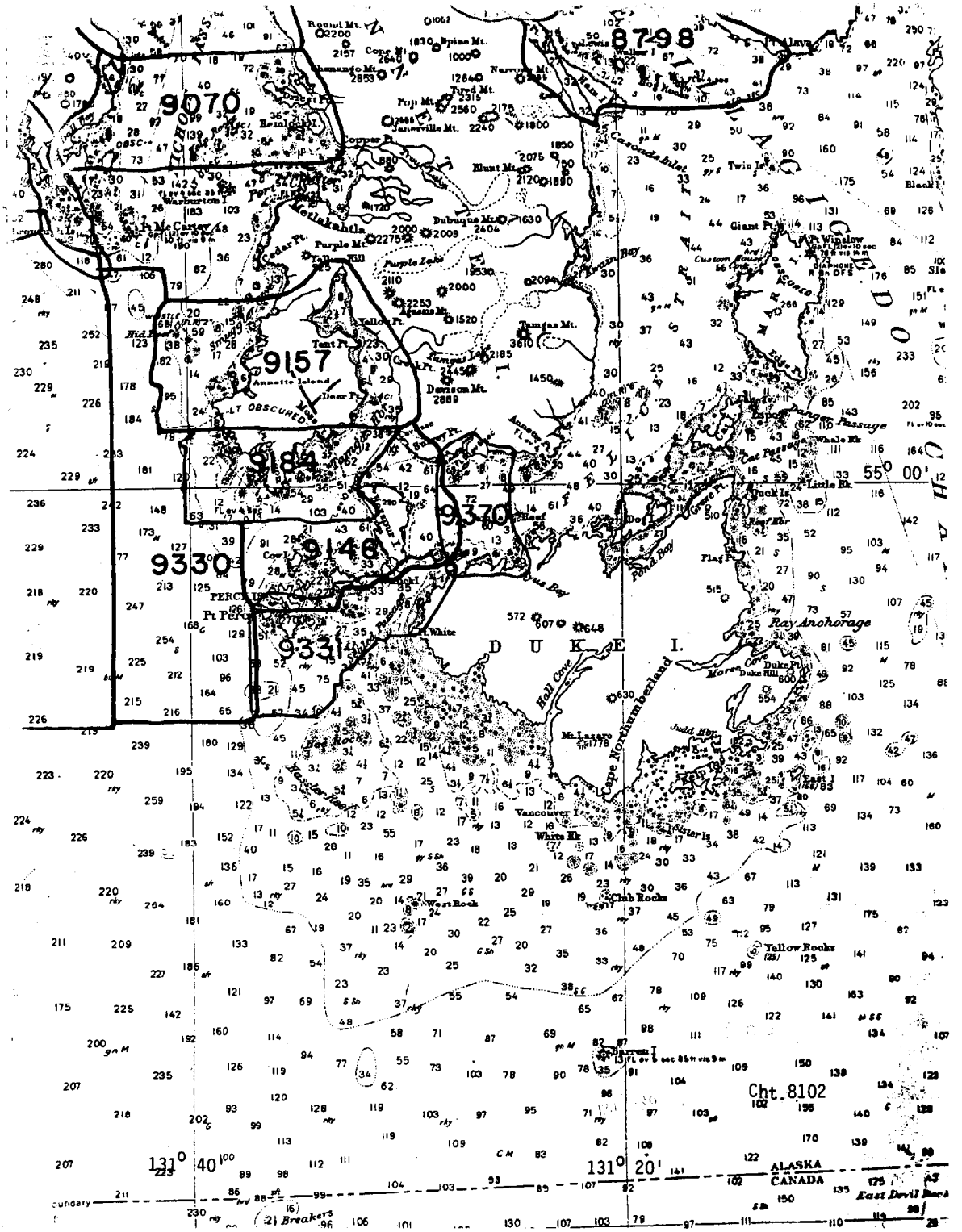
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FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 9370

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
17435	3/16/79	Raitok	Full ~~Part Before~~ After Verification Review QC Inspection Signed Via
			Drawing No. 10
17434	3/21/79	Raitok	Full ~~Part Before~~ After Verification Review QC Inspection Signed Via
			Drawing No. 17
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63