NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE

DESCRIPTIVE REPORT

Type of Survey	HYDROGRAPHIC
Field No.	RA-10-08-03
Registry No.	H-11111
	LOCALITY
State	Alaska
General Locality	Salisbury Sound
Sublocality	Scraggy Point to Point Kruzof
	2002-03
	CHIEF OF PARTY CDR J.W.Humphrey, NOAA
	LIBRARY & ARCHIVES
DATE	

NOAA FORM 77-2 (11-72)		EPARTMENT OF COMMERCE ATMOSPHERIC ADMINISTRATION	REGISTER NO.
	HYDROGRAPHIC TITLE S	SHEET	YY1111
NSTRUCTIONS	The hydrographic sheet should be acco	mpanied by this form	H11111 FIELD NO.
	pletely as possible, when the sheet is forv	•	RA-10-08-03
State	Alaska		
General Locality	Salisbury Sound		
Sublocality	Scraggy Point to Point Kruzof		
Scale	1:10,000	Date of Survey <u>5/13/02 - 6/6/</u>	03
Instructions Dat	e 4/21/2003	Project No. OPR-O112-R	A-03
Vessel	NOAA Ship launches 2121, 2122, 2	2123, 2124, 2125, 2126	
Chief of Party	CDR J.W. Humphrey, NOAA		
Surveyed by	RAINIER Personnel		
	-		
Soundings taker	by echo sounder Knudsen 320M,	Reson SeaBat 8101, 8125, Sea	abeam/Elac 1180
Graphic record	scaled by RAINIER Personnel		
Graphic record	checked by RAINIER Personnel		
Evaluation by	R. Davies A	utomated plot by HP Designjet	1050C
Verification by	R. Davies, E. Domingo		
Soundings in	Fathoms and tenths at	MLLW	
REMARKS:	Time in UTC. UTM Projection Zon	e 8	
	Revisions and annotations appearing	g as endnotes were	
	generated during office processing.		
	All separates are filed with the hydr	ographic data.	
	As a result, page numbering may be	interrupted or non-sequential	

Descriptive Report to Accompany Hydrographic Survey H11111

Project OPR-O112-RA-03 Sitka Sound, Alaska Scale 1:10,000 May 2002 & April-June 2003

NOAA Ship RAINIER
Chief of Party: Commander John W. Humphrey, NOAA

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-O112-RA-03, dated April 21, 2003, and the Draft Standing Project Instructions dated March 21, 2001. The project area is located from Salisbury Sound, North of Sitka to Sitka Sound Southwest of Sitka. This survey corresponds to sheet "G" in the sheet layout provided with the Letter Instructions.

One hundred percent shallow-water multibeam (SWMB) coverage was obtained in the survey area in waters 8 meters and deeper. In some areas, as appropriate for survey, additional coverage was obtained to obtain least depths over features or shoals. Vertical-beam echo sounder (VBES) data were acquired in depths from 4 to 20 meters to define the four-meter curve and to aid in the planning of SWMB data acquisition. ¹

Data acquisition was conducted from May 13 to May 25, 2002 (DN 133 to 145) and April 22 to June 6, 2003 (DN 112 to 157).

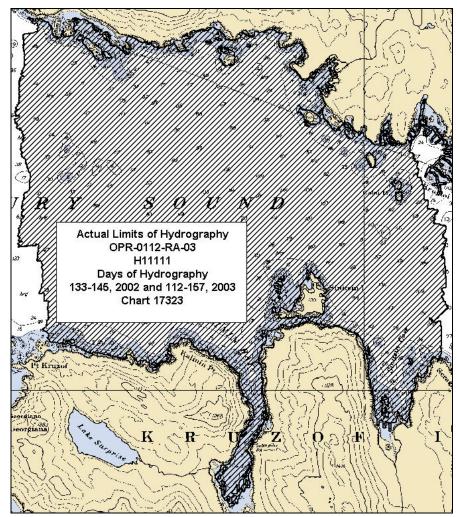


Figure 1. H11111 Survey Limits.

B. DATA ACQUISTION AND PROCESSING

A complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods can be found in the *OPR-O112-RA-03 Data Acquisition and Processing Report* (DAPR), submitted under separate cover. Elac data collected in 2002 is described in the OPR-O112-RA-02 DAPR. Items specific to this survey, and any deviations from the aforementioned report are discussed in the following sections.

B1. Equipment and Vessels

Data were acquired by RAINIER and her survey launches RA1, RA2, RA3, RA4, RA5, and RA6. Vessels RA3, RA4, RA5, & RA6 were used to acquire shallow-water multibeam (SWMB) soundings and sound velocity profiles. Vessels RA1 and RA2 were used to acquire vertical-beam echo soundings (VBES) and detached positions (DPs) for shoreline verification. Vessel RA2 was also used to collect bottom samples.

No unusual vessel configurations were used for data acquisition.⁴

B2. Quality Control

Crosslines

Vertical Beam Echo Sounder (VBES) crosslines including buffer lines totaled 15.21 nautical miles, comprising 49.87% of mainscheme hydrography. Crosslines generally agreed within 1 meter of mainscheme hydrography.

Shallow-Water Multibeam (SWMB) crosslines totaled 15.68 nautical miles, comprising 7.16% of SWMB hydrography. The mainscheme bathymetry was manually compared to the XL nadir beams in CARIS subset mode and agreed well with differences averaging approximately 0.3 meters.

A statistical Quality Control Report has been conducted on data representative collected with each system used on this survey and is included in the *OPR-O112-RA-03 DAPR*. All systems collect data that meet IHO order 2 specifications or better. ⁵

Through manual examination of the data, the Hydrographer has determined accuracy standards have been met. ⁶

Junctions

The following contemporary survey junctions with H11111:

Registry #	Scale	Date	Junction side
H11109	1:10,000	2002	Northeast
H11112	1:10,000	2003	Southeast ⁷

Survey H11109 junctions well with this survey, a cursory comparison indicates differences of generally one fathom or less. ⁸

At the time of this report, data processing for survey H11112 was not completed. Comparisons of the junction with this survey will be discussed in the Descriptive Report for H11112.

Final comparisons will be made at the Pacific Hydrographic Branch (PHB) after the application of smooth tides. ¹⁰

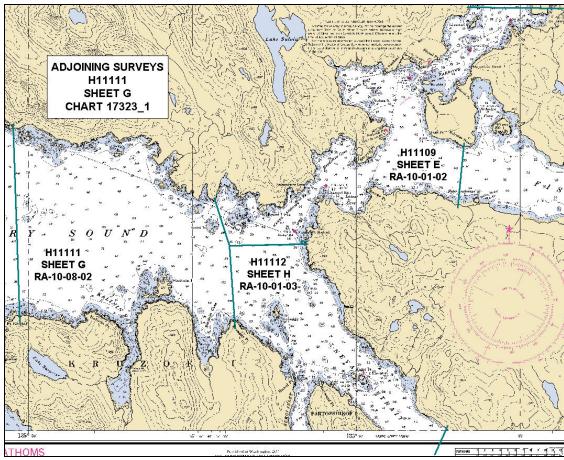


Figure 2. H11111 Junction Surveys.

Data Quality Factors

No unusual conditions were encountered during the survey that affected the expected accuracy and quality of survey data.¹¹

B3. Data Reduction

Data reduction procedures for survey H11111 conform to those detailed in the *OPR-O112-RA-03 DAPR*.

C. VERTICAL AND HORIZONTAL CONTROL

A complete description of vertical and horizontal control for survey H11111 can be found in the *OPR-O112-RA-03 Horizontal and Vertical Control Report*, ¹² submitted under separate cover. A summary of horizontal and vertical control for this survey follows.

Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Differential GPS (DGPS) was the sole method of positioning. Differential corrections from

U.S. Coast Guard beacon at Biorka Island (305 kHz) were utilized during this survey. Launch-to-launch DGPS performance checks using U.S. Coast Guard beacon Level Island (295 kHz) or Gustavus (288 kHz) as the check station were performed weekly in accordance with Section 3.2 of the FPM. Copies of the performance checks are included in the *OPR-O112-RA-03 Horizontal and Vertical Control Report*.

Vertical Control

The vertical datum for this project is Mean Lower-Low Water (MLLW). The operating National Water Level Observation Network (NWLON) primary tide station at Sitka, AK (945-1600) served as control for datum determination and as the primary source for water level reducers for survey H11111.

RAINIER personnel installed Sutron 8210 "bubbler" tide gauges at the following subordinate stations to provide information for N/OPS1 to determine time and height correctors in accordance with the Project Instructions:

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Station Name	Station Number	Type of Gauge	Date of Installation	Date of Removal
Scraggy Island	945-1805	30-day	April 21, 2003	June 24, 2003
Golf Island	945-1421	30-day	May 8, 2003	June 26, 2003

All data were reduced to MLLW using unverified observed tides from station Sitka, AK using the tide file 9451600.tid and time and height correctors using the zone corrector file 0112RA2003CORP.zdf.

The Pacific Hydrographic Branch will apply final approved (smooth) tides to the survey data during final processing. ¹³ A request for delivery of final approved (smooth) tides for survey H11111 was forwarded to N/OPS1 on May 30, 2003. A copy of the request is included in Appendix IV. ¹⁴

D. RESULTS AND RECOMMENDATIONS

D.1 Automated Wreck and Obstruction Information System (AWOIS) Investigations

No AWOIS items were located within the limits of H11111 of this survey. 15

D.2 Chart Comparison

Survey H11111 was compared with chart 17323 (10th Ed.; July 10, 1993, 1:40,000). 16

Chart 17323

Depths from survey H11111 agreed generally within one to two fathoms from chart 17323, with occasional differences up to eight fathoms. In many instances, this survey found shoaler soundings between charted soundings even though agreement at the position of the charted

depths was good. This can be attributed to increased bottom coverage using SWMB methods.¹⁷

Data accuracy standards and bottom coverage requirements have been met and survey data are adequate to supersede charted data in their common areas. 18

Final chart comparisons will be made at the Pacific Hydrographic Branch after the application of smooth tides.¹⁹

D.3 Shoreline

Shoreline Source

Vector photogrammetric projects AK9703A, A9703B, and AK902A were supplied by N/NGS3 in the form of cartographic feature files (CFF). RAINIER conducted limited shoreline verification of the CFF. In the absence of CFF MHW or CFF MLLW RAINIER personnel digitized the largest scale charts in MapInfo and displayed in HYPACK for field verification.

Shoreline Verification

Limited shoreline verification was conducted near predicted low water in accordance with the Standing Project Instructions and FPM sections 6.1 and 6.2. Detached positions (DPs) taken during shoreline verification were recorded in HYPACK and on DP forms, and processed in Pydro. These indicate revisions to features and features not found on the verified shoreline. In addition, annotations describing shoreline were recorded on hard copy plots of digital shoreline. DP forms are included in Section I of the *Separates to be Included with Survey Data*.

A detailed Detached Position and Bottom Sample plot, MapInfo format, is provided showing all detached positions and bottom samples with notes relating to each feature. The updated shoreline and features are also depicted on the final sounding plot. Verified CFF shoreline that did not require revision is in MapInfo table H11111_CFF_Shoreline and shown in black. New MHW features and changes to the MHW shoreline, CFF or charted, are displayed in red on the "H11111_ShorelineUpdates" Mapinfo table, while changes to MLLW are displayed in pink. Charted shoreline, when used for reference purposes or when source data were not available, is depicted in the MapInfo table "H11111_Chd_17323_SL" and is displayed in brown. ²¹

Source Shoreline Changes and New Features

5 CFF (AK-9703A) rocks were found to be high points of a charted (17323) ledge. The Hydrographer recommends not charting the CFF rocks and charting the ledges as displayed on the DPBS plot:²²

Latitude	Longitude	Easting	Northing
57°22'28.2"N	135°45'18.9"W	454,576.97	6,359,321.04

57°22'26.170"N	135°45'24.948"W	454,477.15	6,359,268.71
57°22'32.617"N	135°45'34.016"W	454,311.75	6,359,962.59 ²³
57°22'52.140"N	135°45'55.372"W	453,979.94	6,360,075.53
57°20'20.746"N	135°49'32.081"W	450,311.52	6,355,432.99

The CFF (AK-9703A) kelp foul limit at 57°22'49.087"N, 135°45'39.085"W; (454,253.36 E, 6,359,978.6 N) was not seen during shoreline verification at low water. The Hydrographer recommends not charting the CFF kelp foul line at that area.²⁴

The CFF (AK-9703A) foul limit at 57°20'39.545"N, 135°46'05.696"W; (453,810.14 E, 6,355,971.97 N) and CFF (AK-9703A) rock at 57°20'39.883"N, 135°46'03.05"W; (453,803.51 E, 6,355,987.19 N) were found to be new extents of the charted (17323) ledge. The Hydrographer recommends not charting the CFF foul limit and rock and charting the new extents of the ledge as depicted on the DPBS plot. ²⁵

Charted Features

Three charted (17323) rocks at 57°23'07.59"N, 135°47'10.71"W; (452,727.56 E, 6,360,566.88 N), 57°23'08.32"N, 135°47'14.43"W; (452,666.21 E, 6,360,590.41 N), and 57°23'08.4"N 135°47'18.86"W; (452,591.22 E, 6,360,593.95 N) were disproved after conducting a 3 minute visual and echosounder star pattern search within a one hundred meter search radius. Sea conditions were 0-1ft, 1-2m swell, with 2m visibility. The rocks were also covered with one hundred per cent SWMB. The Hydrographer recommends removing the rocks from the chart.²⁶

The SWM extent of the charted (17323) ledge at 57°20'12.066"N, 135°44'03.988"W; (455,793.8 E, 6,355,107.65 N) is the extent of a new foul area. The new SWM extent of the charted ledge was found at 57°20'09.8"N, 135°44'04.067"W; (455,783.23 E, 6,355,032.27 N) using the shoreline buffer. The Hydrographer recommends charting the ledge and foul limit as displayed on the DPBS plot.²⁷

Two charted (17323) rocks and one charted (17323) islet were disproved with one hundred per cent SWMB. The Hydrographer recommends removing the rocks and islet from the chart at:²⁸

Latitude	Longitude	Easting	Northing
57°22'55.90"N	135°46'16.06"W	453,636.28	6,360,196.09
57°20'47.60"N	135°46'32.20"W	453,321.51	6,356,230.79
57°22'57.75"N	135°46'18.86"W	453,591.33	6,360,251.71 (Islet)

Recommendations

The Hydrographer recommends that the shoreline as depicted on the Detached Position and Bottom Sample and final sounding Mapinfo digital files supersede and complement shoreline information compiled on the CFF and charts as noted. In addition, field notes made by the

Hydrographer, including verification of source features or charted features if no source shoreline was available are submitted in the digital MapInfo file "H11111_ShorelineNotes."²⁹

D.4 Dangers to Navigation

Ten dangers to navigation were found and reported to the Marine Charting Division (MCD) for verification and final submission to the Seventeenth Coast Guard District on November 7, 2003 in the form of a digital XML file "DTON_H11111.xml". A copy of the preliminary Danger to Navigation file is included with the digital data. 31

D.5 Aids to Navigation

No aids to navigation (ATONs) are located within the limits of H11111.

D.6 Miscellaneous

Bottom samples were collected and are depicted on the Detached Position and Bottom Sample Plot and mostly matched with bottom samples from chart 17323.³²

In February 2004, the RAINIER was informed of a bug in CARIS SBEdit that incorrectly changes the Observed depths if the VBES data is processed in the following manner: SVP correct (at least once), followed by depth edits (includes accept/reject flagging), followed by an additional SVP correct and merge. By reconverting the raw VBES lines on survey H11111 and copying the SLRange, SLRangeLineSegments, SLRangeTmIdx files into the original processed line file folders, and re-merging, the errors from the Sbedit bug were removed. A comparison of the reconverted and original data in Mapinfo found only one difference of 0.002m between soundings located at the same latitude and longitude. The submitted HDCS_DATA for this survey includes the corrected VBES depths and meets requirements.

E. APPROVAL

As Chief of Party, I have ensured that standard field surveying and processing procedures were followed in producing this examination in accordance with the Hydrographic Manual, Fourth Edition, Hydrographic Survey Guidelines, Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables, as updated for 2003.

The digital data and supporting records have been reviewed by me, are considered complete and adequate for charting purposes, and are approved. All records are forwarded for final review and processing to N/CS34, Pacific Hydrographic Branch.

Survey H11111 is complete and adequate to supersede charted soundings ³³ in their common areas. No additional work is required for this survey. ³⁴

Listed below are supplemental reports submitted separately that contain additional information relevant to this survey:

<u>Title</u>	Date Sent	<u>Office</u>
Data Acquisition and Processing Report for OPR-O112-RA-03	10/9/2003	N/CS34
Horizontal and Vertical Control Report for OPR-O112-RA-03	9/8/2003	N/CS34
Tides and Water Levels Package for OPR-O112-RA-03	8/1/2003	N/OPS1
Coast Pilot Report for OPR-O112-RA-02	10/10/2003	N/CS26

Approved and Forwarded:

John W. Humphrey Commander, NOAA

Commanding Officer

2-12-04

Date

In addition, the following individuals were also responsible for overseeing data acquisition and processing of this survey:

Survey Sheet Manager:

Elaine S. Stuart

Senior Survey Technician, NOAA

Field Operations Officer:

Richard A. Fletcher

Lieutenant Commander, NOAA

Revisions Compiled During Office processing and Certification.

¹ Concur

- ² Filed with the project records.
- ³ Filed with the project records.
- ⁴ Concur
- ⁵ After office review this survey meets IHO order 1 in depths less than 120 meters and meets IHO order 2 in depths greater than 120 meters.
- ⁶ See endnote 5
- ⁷ Survey H11131 (2002) junctions the present survey to the west.
- ⁸ Concur
- ⁹ Survey H11112 was complete during office processing and the comparison is discussed in this report.
- ¹⁰ All junction surveys compared within 1 fathom or less, therefore, the junction with survey H11111 and surveys H11109, H11112 and H11131 are complete. A "Joins" note has been added to the smooth sheets where applicable.
- Concur
- ¹² Filed with the project records.
- ¹³ Approved tide notes dated December 18, 2003 and December 2, 2004 are attached.
- ¹⁴ Filed with the hydrographic records.
- ¹⁵ Concur
- ¹⁶ Survey H11111 was compared with chart 17323, 11th Edition, dated October 1, 2004.
- ¹⁷ Concur
- ¹⁸ Except where the hydrographer or evaluator recommends features to be retained as charted due to inconclusive evidence or the inability to investigate features within the survey areas.
- ¹⁹ With the application of smooth tides, no changes to the comparison were noticed. This survey is adequate to supersede all charted soundings and features except where noted in this report and as noted on the detached position and bottom sample plot.

 20 CFF shoreline map AK9703a was used for the shoreline on this survey. Changes in the CFF shoreline has
- been drawn in dashed red on the smooth sheet.
- ²¹ Shoreline verification conducted by the hydrographer and portrayed on the detached position plot has been analyzed during office processing and shown on the smooth sheet as warranted. A few minor revisions to the CFF shoreline have been shown in dashed red on the smooth sheet. Numerous charted features are shown inshore of the current hydrography and have been visually verified to confirm existence. These features are shown on the detached position and bottom sample plot with the hydrographer's comments and are on level 9 of the smooth sheet.
- ²² Concur with clarification, as displayed on the smooth sheet.
- ²³ Nothing at this location.
- ²⁴ Concur
- ²⁵ Concur
- ²⁶ Concur
- ²⁷ Concur
- ²⁸ Concur
- ²⁹ Shoreline verification conducted by the hydrographer and portrayed on the detached position plot has been analyzed during office processing and shown on the smooth sheet as warranted. A few minor revisions to the CFF shoreline have been shown in dashed red on the smooth sheet.
- ³⁰ The original danger letter which is attached to this report was resubmitted on February 14, 2006 because the dangers to navigation were not applied to chart 17323, 11th Edition, dated October 1, 2004.
- ³¹ See attached report. No additional dangers were found during office processing.
- ³² Bottom characteristics have been shown on the smooth sheet as positioned by the present survey.
- ³³ And features
- 34 Concur

Shoreline Report for H11111

Registry Number: H11111

State:

Locality: Salisbury Sound

Sub-locality: Scraggy Point to Point Kruzof

Alaska

Project Number: OPR-O112-RA-03

Survey Dates: 05/16/2002 - 06/06/2003

Charts Affected

Number	Version	Date	Scale
17323	10th Ed.	07/10/93	1:40000
17325	7th Ed.	10/13/90	1:40000
17320	15th Ed.	03/06/99	1:217828
16016	19th Ed.	07/10/93	1:969756
531	21st Ed.	02/02/02	1:2100000
500	7th Ed.	06/01/96	1:3500000
530	30th Ed.	03/23/02	1:4860700
50	5th Ed.	07/30/94	1:10000000

Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Sounding	-2.34 m	57.31890208° N	135.79079267° W	
1.2	Sounding	-0.52 m	57.33892255° N	135.81639472° W	
1.3	Sounding	19.90 m	57.33962454° N	135.81607271° W	
1.4	Sounding	15.16 m	57.33926804° N	135.81635346° W	
1.5	Sounding	-0.79 m	57.37174994° N	135.74352852° W	
1.6	Sounding	-5.80 m	57.37153485° N	135.74284722° W	
1.7	Sounding	-3.95 m	57.37310040° N	135.75518163° W	
1.8	Sounding	-2.97 m	57.37316302° N	135.75395406° W	
1.9	Sounding	12.26 m	57.37952801° N	135.76184111° W	
1.10	Sounding	-5.80 m	57.37601228° N	135.76630182° W	

	~				
1.11	Sounding	-0.46 m	57.33087656° N	135.74389923° W	
1.12	Sounding	-2.46 m	57.33028051° N	135.74440664° W	
1.13	Sounding	-3.56 m	57.33890123° N	135.74943835° W	
1.14	Sounding	-1.76 m	57.34193012° N	135.77763200° W	
1.15	Sounding	-5.84 m	57.32828009° N	135.77835668° W	
1.16	Sounding	17.71 m	57.33333930° N	135.74664822° W	
1.17	Sounding	9.46 m	57.36540236° N	135.74112330° W	
1.18	Sounding	-0.77 m	57.38463003° N	135.78673252° W	
1.19	Sounding	-0.68 m	57.38553329° N	135.79074666° W	
1.20	Sounding	-1.56 m	57.38495547° N	135.80029689° W	
1.21	Sounding	-0.54 m	57.38621964° N	135.80149804° W	
1.22	Sounding	0.01 m	57.38663274° N	135.79035482° W	
1.23	Sounding	0.57 m	57.38714812° N	135.82427271° W	
1.24	Sounding	-0.98 m	57.38588561° N	135.82600964° W	
1.25	Sounding	-0.17 m	57.35164805° N	135.76521750° W	
1.26	Sounding	-0.24 m	57.34606808° N	135.77343148° W	
1.27	Sounding	-1.91 m	57.34604814° N	135.77579877° W	
1.28	Sounding	0.06 m	57.34583872° N	135.77518805° W	
1.29	Sounding	9.32 m	57.38489066° N	135.78897456° W	
1.30	Sounding	9.99 m	57.38513933° N	135.79006817° W	
1.31	Sounding	6.64 m	57.38263573° N	135.76129371° W	
1.32	Sounding	7.15 m	57.38722833° N	135.78995558° W	
1.33	Sounding	20.83 m	57.38480999° N	135.81629668° W	
1.34	Sounding	10.01 m	57.38743362° N	135.82293555° W	
2.1	Rock	1.52 m	57.37994782° N	135.76331338° W	
2.2	Shoal	10.09 m	57.38697365° N	135.83933079° W	
2.3	Shoal	4.54 m	57.38281816° N	135.78513024° W	
2.4	Shoal	8.50 m	57.37194961° N	135.76108183° W	
2.5	Shoal	7.00 m	57.36999565° N	135.75523239° W	
2.6	Shoal	2.50 m	57.36759439° N	135.75039978° W	
2.7	Shoal	16.27 m	57.35805962° N	135.74483183° W	
2.8	Shoal	8.53 m	57.34025565° N	135.74618602° W	
2.9	Shoal	2.19 m	57.32469400° N	135.78468844° W	
2.10	Shoal	15.20 m	57.36739683° N	135.82174895° W	



1.1) Profile/Beam - 15/1 from H11111 / R1NE 2003 / 2003-112 / DP1112

Survey Summary

Survey Position: 57.31890208° N, 135.79079267° W

Least Depth: -2.34 m

Timestamp: 2003-112.21:41:08.000 (04/22/2003)

DP Dataset: H11111 / R1NE_2003 / 2003-112 / DP1112

Profile/Beam: 15/1

Charts Affected: 17323_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

1112336 N ext new brk ldg

The CFF (AK-9703A) rock at 57°19'06.874"N, 135°47'25.231"W (452,396.99 E, 6,353,127.7 N) is the SWM extent of the new broken ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R1NE_2003/2003-112/DP1112	15/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF rock and charting the broken ledge as depicted on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

- -1 1/4fm (17325_1, 17320_1, 16016_1, 530_1)
- -1fm 1ft (17323_1, 531_1)
- -2.4m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 1112336 N ext new brk ldg The CFF (AK-9703A) rock at 57°19'06.874"N,

135°47'25.231"W (452,396.99 E, 6,353,127.7 N) is the SWM extent of the new broken ledge.

Concur, chart ledge as shown on the smooth sheet.

1.2) Profile/Beam - 1/1 from H11111 / R2NE_2003 / 2003-122 / DP2122

Survey Summary

Survey Position: 57.33892255° N, 135.81639472° W

Least Depth: -0.52 m

Timestamp: 2003-122.17:40:09.000 (05/02/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-122 / DP2122

Profile/Beam: 1/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

212278 CFF rk new ext chd (17323) ldg

The CFF (AK-9703A) rock at 57°20'19.64"N, 135°48'58.759"W; (450,859.01 E, 6,355,395.99 N) was found to be the new extent of a charted (17323) ledge. A CFF (AK-9703A) foul at 57°20'19.964"N, 135°48'59.778"W; (450,832.26 E, 6,355,398.32 N) was found inside the new extents of the charted ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-122/DP2122	1/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF rock or the CFF foul limit and charting the new extent of the ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 1/4fm (17320_1, 16016_1, 530_1) 0fm 1ft (17323_1, 531_1) -.5m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 212278 CFF rk new ext chd (17323) ldg The CFF (AK-9703A) rock at

57°20'19.64"N, 135°48'58.759"W; (450,859.01 E, 6,355,395.99 N) was found to be the new

extent of a charted (17323) ledge. A CFF (AK-9703A) foul at 57°20'19.964"N,

135°48'59.778"W; (450,832.26 E, 6,355,398.32 N) was found inside the new extents of the

charted ledge.

Concur, chart ledge as shown on the smooth sheet.

1.3) Profile/Beam - 1/1 from H11111 / R2SB_2003 / 2003-122 / DP2122

Survey Summary

Survey Position: 57.33962454° N, 135.81607271° W

Least Depth: 19.90 m

Timestamp: 2003-122.18:59:49.000 (05/02/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-122 / DP2122

Profile/Beam: 1/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

212296 Chd (17323) islet disproval

The charted (17323) islet was disproved after conducting a 6 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were 0-1ft, 0-1m swell, with 3m visibility. The islet was also covered with one hundred per cent SWMB. The charted (17323) foul limit at 57°20'22.247"N, 135°49'02.802"W; (450,816.67 E, 6,355,499.15 N) surrounding the islet was disproved with one hundred per cent SWMB.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-122/DP2122	1/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the islet and foul area from the chart.

Cartographically-Rounded Depth (Affected Charts):

10 3/4fm (17320_1, 16016_1, 530_1) 10fm 5ft (17323_1, 531_1) 19.9m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes:

INFORM - 212296 Chd (17323) islet disproval The charted (17323) islet was disproved after conducting a 6 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were 0-1ft, 0-1m swell, with 3m visibility. The islet was also covered with one hundred per cent SWMB. The charted (17323) foul limit at $57^{\circ}20'22.247"N$, $135^{\circ}49'02.802"W$; (450,816.67 E, 6,355,499.15 N) surrounding the islet was disproved with one hundred per cent SWMB.

Office Notes

Concur, chart ledge and soundings as shown on the smooth sheet.

1.4) Profile/Beam - 2/1 from H11111 / R2SB_2003 / 2003-122 / DP2122

Survey Summary

Survey Position: 57.33926804° N, 135.81635346° W

Least Depth: 15.16 m

Timestamp: 2003-122.19:10:35.000 (05/02/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-122 / DP2122

Profile/Beam: 2/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2122106 Chd (17323) rk disproval

The charted (17323) rock was disproved after conducting a 5 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were 0-1ft, 0-1m swell, with 3m visibility. The rock was also covered with one hundred per cent SWMB.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-122/DP2122	2/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

8 1/4fm (17320_1, 16016_1, 530_1) 8fm 1ft (17323_1, 531_1) 15.1m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2122106 Chd (17323) rk disproval The charted (17323) rock was disproved after

conducting a 5 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were 0-1ft, 0-1m swell, with 3m visibility. The rock was also covered

with one hundred per cent SWMB.

Concur, remove the charted rock and chart soundings as shown on the smooth sheet in this area.

1.5) Profile/Beam - 6/1 from H11111 / R2NE_2003 / 2003-124 / DP2124

Survey Summary

Survey Position: 57.37174994° N, 135.74352852° W

Least Depth: -0.79 m

Timestamp: 2003-124.17:45:52.000 (05/04/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-124 / DP2124

Profile/Beam: 6/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

212461 N ext new reef

Feature Correlation

Address	Feature	Range	Azimuth	Status	
H11111/R2NE_2003/2003-124/DP2124	6/1	0.00	000.0	Primary	

Hydrographer Recommendations

Chart new reef as depicted on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1) 0fm 2ft (17323_1, 531_1) -.8m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 212461 N ext new reef

Office Notes

Concur, chart reef as shown on the smooth sheet.

1.6) Profile/Beam - 7/1 from H11111 / R2NE_2003 / 2003-124 / DP2124

Survey Summary

Survey Position: 57.37153485° N, 135.74284722° W

Least Depth: -5.80 m

Timestamp: 2003-124.17:48:07.000 (05/04/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-124 / DP2124

Profile/Beam: 7/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

212462 Chd (17323) islet hp new reef

The charted (17323) islet at 57°22'18.27"N, 135°44'34.15"W; (455,326.74 E, 6,359,011.74 N) was found to be the high point of a new ledge. The CFF (AK-9703A) rock at 57°22'17.105"N, 135°44'34.303"W; (455,320.9 E, 6,358,977.74 N) was found to be a high point of the new ledge (DP #212461-63). The charted (17323) rock at 57°22'15.74"N, 135°44'32.30"W; (455,355.42 E, 6,358,934.28 N) was found to be a high point of the new ledge. No charted foul area at 57°22'17.240"N, 135°44'35.910"W; (455,296.97 E, 6,358,980.08 N) was seen surrounding the islet and rock during shoreline verification (RA-2, DN 124, 141_1737 and DN 123, 000_1632), but approximates the offshore extents of the ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-124/DP2124	7/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF rock, removing the charted rock and foul area from the chart, and charting the new ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

```
-3fm (17320_1, 16016_1, 530_1)
-3fm 1ft (17323_1, 531_1)
-5.8m (500_1, 50_1)
```

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes:

INFORM - 212462 Chd (17323) islet hp new reef The charted (17323) islet at 57°22'18.27"N, 135°44'34.15"W; (455,326.74 E, 6,359,011.74 N) was found to be the high point of a new ledge. The CFF (AK-9703A) rock at 57°22'17.105"N, 135°44'34.303"W; (455,320.9 E, 6,358,977.74 N) was found to be a high point of the new ledge (DP #212461-63). The charted (17323) rock at 57°22'15.74"N, 135°44'32.30"W; (455,355.42 E, 6,358,934.28 N) was found to be a high point of the new ledge. No charted foul area at 57°22'17.240"N, 135°44'35.910"W; (455,296.97 E, 6,358,980.08 N) was seen surrounding the islet and rock during shoreline verification (RA-2, DN 124, 141_1737 and DN 123, 000_1632), but approximates the offshore extents of the ledge.

Office Notes

Concur, chart ledge as shown on the smooth sheet.

1.7) Profile/Beam - 11/1 from H11111 / R2NE 2003 / 2003-124 / DP2124

Survey Summary

Survey Position: 57.37310040° N, 135.75518163° W

Least Depth: -3.95 m

Timestamp: 2003-124.18:23:54.000 (05/04/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-124 / DP2124

Profile/Beam: 11/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

212483 Chd (17323) rk is ext CFF ldg

The charted (17323) rk at 57°22'24.46"N, 135°45'19.2"W; (454,575.58 E, 6,359,212.84 N) was found to be the new extent of a CFF ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-124/DP2124	11/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the charted rock from the chart and charting the new extent of the CFF islet as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

- -2fm (17320_1, 16016_1, 530_1)
- -2fm 1ft (17323_1, 531_1)
- -4.0m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 212483 Chd (17323) rk is ext CFF ldg The charted (17323) rk at 57°22'24.46"N,

135°45'19.2"W; (454,575.58 E, 6,359,212.84 N) was found to be the new extent of a CFF

ledge.

Concur, chart ledge as shown on the smooth sheet.

1.8) Profile/Beam - 12/1 from H11111 / R2NE 2003 / 2003-124 / DP2124

Survey Summary

Survey Position: 57.37316302° N, 135.75395406° W

Least Depth: -2.97 m

Timestamp: 2003-124.18:26:30.000 (05/04/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-124 / DP2124

Profile/Beam: 12/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

212484 Chd (17323) rk is ext CFF ldg

The charted (17323) rk was found to be the new extent of a CFF islet.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-124/DP2124	12/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the charted rock from the chart and charting the new extent of the CFF islet as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

- -1 ½fm (17320_1, 16016_1, 530_1)
- -1fm 3ft (17323_1, 531_1)
- -3.0m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 212484 Chd (17323) rk is ext CFF ldg The charted (17323) rk was found to be the

new extent of a CFF islet.

Concur, chart ledge as shown on the smooth sheet.

1.9) Profile/Beam - 1/1 from H11111 / R2SB_2003 / 2003-124 / DP2124

Survey Summary

Survey Position: 57.37952801° N, 135.76184111° W

Least Depth: 12.26 m

Timestamp: 2003-124.19:22:38.000 (05/04/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-124 / DP2124

Profile/Beam: 1/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2124103 Chd (17323) rk disproval

The charted (17323) rock was disproved after conducting a 5 minute visual and echosounder star pattern search within a one hundred meter search radius. Sea conditions were 0-1ft, 0-1m swell, with 3m visibility. The rock was also covered with one hundred per cent SWMB.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-124/DP2124	1/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

6 3/4fm (17320_1, 16016_1, 530_1) 6fm 4ft (17323_1, 531_1) 12.2m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2124103 Chd (17323) rk disproval The charted (17323) rock was disproved after

conducting a 5 minute visual and echosounder star pattern search within a one hundred meter search radius. Sea conditions were 0-1ft, 0-1m swell, with 3m visibility. The rock was also

covered with one hundred per cent SWMB.

Concur

1.10) Profile/Beam - 5/1 from H11111 / R2NE_2003 / 2003-125 / DP2125

Survey Summary

Survey Position: 57.37601228° N, 135.76630182° W

Least Depth: -5.80 m

Timestamp: 2003-125.18:27:08.000 (05/05/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-125 / DP2125

Profile/Beam: 5/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

212532 CFF rk hp new reef

The CFF (AK-9703A) rock at 57°22'33.2"N, 135°45'58.9"W; (453,914.36 E, 6,359,490.55 N) was found to be the high point of a new reef (Extents of the new reef: DP #212530-31). The CFF (AK-9703A) rock at 57°22'33.647"N, 135°46'01.47"W; (453,871.49 E, 6,359,506.73 N) was found to be another high point of the new reef. The charted (17323) foul limit at 57°22'35.965"N, 135°46'06.953"W; (453,797.85 E, 6,359,589.39 N) is partially inside the new reef and the rest is covered with one hundred per cent SWMB. The shoreline buffer was used to define the charted (17323) foul limit that surrounds the new reef and CFF (AK-9703A) islet (57°22'29.291"N, 135°45'54.5"W; (453,988.27 E, 6,359,367.25 N).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-125/DP2125	5/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF rocks or the charted foul area and charting the new reef as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

```
-3fm (17320_1, 16016_1, 530_1)
-3fm 1ft (17323_1, 531_1)
-5.8m (500_1, 50_1)
```

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes:

INFORM - 212532 CFF rk hp new reef The CFF (AK-9703A) rock at $57^{\circ}22'33.2"N$, $135^{\circ}45'58.9"W$; (453,914.36 E, 6,359,490.55 N) was found to be the high point of a new reef (Extents of the new reef: DP #212530-31). The CFF (AK-9703A) rock at $57^{\circ}22'33.647"N$, $135^{\circ}46'01.47"W$; (453,871.49 E, 6,359,506.73 N) was found to be another high point of the new reef. The charted (17323) foul limit at $57^{\circ}22'35.965"N$, $135^{\circ}46'06.953"W$; (453,797.85 E, 6,359,589.39 N) is partially inside the new reef and the rest is covered with one hundred per cent SWMB. The shoreline buffer was used to define the charted (17323) foul limit that surrounds the new reef and CFF (AK-9703A) islet ($57^{\circ}22'29.291"N$, $135^{\circ}45'54.5"W$; (453,988.27 E, 6,359,367.25 N).

Office Notes

Concur, chart reef as shown on the smooth sheet.

1.11) Profile/Beam - 3/1 from H11111 / R1NE 2003 / 2003-140 / DP1140

Survey Summary

Survey Position: 57.33087656° N, 135.74389923° W

Least Depth: -0.46 m

Timestamp: 2003-140.19:21:44.000 (05/20/2003)

DP Dataset: H11111 / R1NE_2003 / 2003-140 / DP1140

Profile/Beam: 3/1

Charts Affected: 17323_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

1140151 Swm ext new reef

The CFF (AK-9703A) rock at 57°19'50.12"N, 135°44'37.8" W; (455,214.96 E, 6,3544,32.14 N) was found to be the high point of the new reef.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R1NE_2003/2003-140/DP1140	3/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF (AK-9703A) rock and charting the new reef as depicted on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17325_1, 17320_1, 16016_1, 530_1) 0fm 1ft (17323_1, 531_1) -.5m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 1140151 Swm ext new reef The CFF (AK-9703A) rock at 57°19'50.12"N,

135°44'37.8" W; (455,214.96 E, 6,3544,32.14 N) was found to be the high point of the new

reef.

Concur, chart reef as shown on the smooth sheet.

1.12) Profile/Beam - 4/1 from H11111 / R1NE 2003 / 2003-140 / DP1140

Survey Summary

Survey Position: 57.33028051° N, 135.74440664° W

Least Depth: -2.46 m

Timestamp: 2003-140.19:24:08.000 (05/20/2003)

DP Dataset: H11111 / R1NE_2003 / 2003-140 / DP1140

Profile/Beam: 4/1

Charts Affected: 17323_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

1140152 Chd (17323) rk ext new reef

The charted (17323) rock at 57°19'48.32"N, 135°44'38.94"W; (455,195.15, 6,354,376.58) was found to be the extent of a new reef.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R1NE_2003/2003-140/DP1140	4/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart and charting the new reef as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

- -1 1/4fm (17325_1, 17320_1, 16016_1, 530_1)
- -1fm 2ft (17323_1, 531_1)
- -2.5m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 1140152 Chd (17323) rk ext new reef The charted (17323) rock at 57°19'48.32"N,

135°44'38.94"W; (455,195.15, 6,354,376.58) was found to be the extent of a new reef.

1.13) Profile/Beam - 9/1 from H11111 / R1NE_2003 / 2003-140 / DP1140

Survey Summary

Survey Position: 57.33890123° N, 135.74943835° W

Least Depth: -3.56 m

Timestamp: 2003-140.19:53:23.000 (05/20/2003)

DP Dataset: H11111 / R1NE_2003 / 2003-140 / DP1140

Profile/Beam: 9/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

1140157 Chd (17323) rk new ext of chd (17323) ldg

The charted (17323) rock at 57°20'19.98"N, 135°44'57.69" W; (454,892.3 E, 6,355,358.62 N) was found to be the extent of a charted ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R1NE_2003/2003-140/DP1140	9/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart and charting the extent of the ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0fm (17320_1, 16016_1, 530_1) -1fm 5ft (17323_1, 531_1)

-3.6m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 1140157 Chd (17323) rk new ext of chd (17323) ldg The charted (17323) rock at

57°20'19.98"N, 135°44'57.69" W; (454,892.3 E, 6,355,358.62 N) was found to be the extent of

a charted ledge.

1.14) Profile/Beam - 16/1 from H11111 / R1NE_2003 / 2003-140 / DP1140

Survey Summary

Survey Position: 57.34193012° N, 135.77763200° W

Least Depth: -1.76 m

Timestamp: 2003-140.20:25:16.000 (05/20/2003)

DP Dataset: H11111 / R1NE_2003 / 2003-140 / DP1140

Profile/Beam: 16/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

1140168 CFF rk new ext chd (17323) ldg

The CFF (AK-9703A) rock at 57°20'30.3"N, 135°46'38.8"W; (453,205.58 E, 6,355,697.17 N) was found to be the new extent of a charted (17323) ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R1NE_2003/2003-140/DP1140	16/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF rock and charting the new extent of the ledge as depicted on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

1fm (17320_1, 16016_1, 530_1)

-1fm 0ft (17323_1, 531_1)

-1.8m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 1140168 CFF rk new ext chd (17323) ldg The CFF (AK-9703A) rock at

57°20'30.3"N, 135°46'38.8"W; (453,205.58 E, 6,355,697.17 N) was found to be the new extent

of a charted (17323) ledge.

1.15) Profile/Beam - 18/1 from H11111 / R1NE_2003 / 2003-140 / DP1140

Survey Summary

Survey Position: 57.32828009° N, 135.77835668° W

Least Depth: -5.84 m

Timestamp: 2003-140.20:34:42.000 (05/20/2003)

DP Dataset: H11111 / R1NE_2003 / 2003-140 / DP1140

Profile/Beam: 18/1

Charts Affected: 17323_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

1140170 CFF rk hp new ext chd (17323) ldg

The CFF (AK-9703A) rock at 57°19'42.0" N, 135°46'41.34"W; (453144.74 E, 6354203.9 W) was found to be the high point of a new extent of a charted (17323) ledge. The charted (17323) foul limit lay inside the new extents of the charted (17323) ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R1NE_2003/2003-140/DP1140	18/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF rock or the charted foul limit and charting the ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

- -3 ¹/₄fm (17325_1, 17320_1, 16016_1, 530_1)
- -3fm 1ft (17323_1, 531_1)
- -5.9m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 1140170 CFF rk hp new ext chd (17323) ldg The CFF (AK-9703A) rock at

57°19'42.0" N, 135°46'41.34"W; (453144.74 E, 6354203.9 W) was found to be the high point of a new extent of a charted (17323) ledge. The charted (17323) foul limit lay inside the new

extents of the charted (17323) ledge.

1.16) Profile/Beam - 1/1 from H11111 / R1SB_2003 / 2003-140 / DP1140

Survey Summary

Survey Position: 57.33333930° N, 135.74664822° W

Least Depth: 17.71 m

Timestamp: 2003-140.22:03:36.000 (05/20/2003)

DP Dataset: H11111 / R1SB_2003 / 2003-140 / DP1140

Profile/Beam: 1/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

1140195 Chd (17323) rk disproval

The charted (17323) rk was disproved after conducting a 7 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were zero, 0m swell, with 4m visibility. The rock was also covered with one hundred per cent SWMB.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R1SB_2003/2003-140/DP1140	1/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

9 ½fm (17320_1, 16016_1, 530_1) 9fm 4ft (17323_1, 531_1) 17.7m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 1140195 Chd (17323) rk disproval The charted (17323) rk was disproved after

conducting a 7 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were zero, 0m swell, with 4m visibility. The rock was also covered with

one hundred per cent SWMB.

Concur

1.17) Profile/Beam - 2/1 from H11111 / R1SB_2003 / 2003-140 / DP1140

Survey Summary

Survey Position: 57.36540236° N, 135.74112330° W

Least Depth: 9.46 m

Timestamp: 2003-140.22:25:34.000 (05/20/2003)

DP Dataset: H11111 / R1SB_2003 / 2003-140 / DP1140

Profile/Beam: 2/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

1140210 Chd (17323) rk disproval

The charted (17323) rk was disproved after conducting a 7 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were 1m, 1m swell, with 4m visibility. The rock was also covered with one hundred per cent SWMB.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R1SB_2003/2003-140/DP1140	2/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

5fm (17320_1, 16016_1, 530_1) 5fm 1ft (17323_1, 531_1) 9.4m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 1140210 Chd (17323) rk disproval The charted (17323) rk was disproved after

conducting a 7 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were 1m, 1m swell, with 4m visibility. The rock was also covered with

one hundred per cent SWMB.

1.18) Profile/Beam - 2/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38463003° N, 135.78673252° W

Least Depth: -0.77 m

Timestamp: 2003-140.17:38:33.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 2/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

214039 CFF foul is new ext chd (17323) ldg

The CFF (AK-9703A) foul limit at 57°23'04.33"N, 135°47'11.84"W; (452,676.62 E, 6,360,518.25 N) was found to be the new extent of a charted (17323) ledge (Extents of the charted ledge: DP #214040, 214067-68). The CFF (AK-9703A) rock at 57°23'03.599"N, 135°47'13.369"W; (452,681.31 E, 6,360,445.83 N) was found to be a high point of the charted (17323) ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	2/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends neither charting the CFF foul limit nor the CFF rock and charting the new extents of the charted ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 1/4fm (17320_1, 16016_1, 530_1) 0fm 2ft (17323_1, 531_1) -.8m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes:

INFORM - 214039 CFF foul is new ext chd (17323) ldg The CFF (AK-9703A) foul limit at 57°23′04.33″N, 135°47′11.84″W; (452,676.62 E, 6,360,518.25 N) was found to be the new extent of a charted (17323) ledge (Extents of the charted ledge: DP #214040, 214067-68). The CFF (AK-9703A) rock at 57°23′03.599″N, 135°47′13.369″W; (452,681.31 E, 6,360,445.83 N) was found to be a high point of the charted (17323) ledge.

Office Notes

1.19) Profile/Beam - 5/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38553329° N, 135.79074666° W

Least Depth: -0.68 m

Timestamp: 2003-140.17:50:42.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 5/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

214068 New ext chd (17323) ldg, CFF rk hp

The CFF (AK-9703A) rock at 57°23'05.81"N, 135°47'26.72"W; (452,459.71, 6,360,515.65) was found to be the high point of a new extent of a charted (17323) ledge (Extents of the charted ledge: DP #214039-40, 214067).

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	5/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends charting the new extents of the ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1) 0fm 2ft (17323_1, 531_1) -.7m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: INFORM - 214068 New ext chd (17323) ldg, CFF rk hp The CFF (AK-9703A) rock at

57°23'05.81"N, 135°47'26.72"W; (452,459.71, 6,360,515.65) was found to be the high point of

a new extent of a charted (17323) ledge (Extents of the charted ledge: DP #214039-40,

214067).

VALSOU - -0.68 m

1.20) Profile/Beam - 6/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38495547° N, 135.80029689° W

Least Depth: -1.56 m

Timestamp: 2003-140.18:08:51.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 6/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140144 Chd (17323) rk new ext chd (17323) ldg

The charted (17323) 57°23'06.69"N, 135°47'59.0"W; (451,921.51 E, 6,360,548.66 N) rk at was found to be the new extent of a charted ledge. The charted (17323) foul limit around the rock was disproved with one hundred per cent SWMB. The CFF (AK-9703A) kelp foul line at 57°23'09.344"N, 135°48'14.458"W; (451,913.33 E, 6,360,492.2 N) was found to be the true extents of the foul area.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	6/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the charted rock and foul line from the chart and charting the new extents of the charted ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 3/4fm (17320_1, 16016_1, 530_1) 0fm 5ft (17323_1, 531_1) -1.6m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes:

INFORM - 2140144 Chd (17323) rk new ext chd (17323) ldg The charted (17323) $57^{\circ}23'06.69"N$, $135^{\circ}47'59.0"W$; (451,921.51 E, 6,360,548.66 N) rk at was found to be the new extent of a charted ledge. The charted (17323) foul limit around the rock was disproved with one hundred per cent SWMB. The CFF (AK-9703A) kelp foul line at $57^{\circ}23'09.344"N$, $135^{\circ}48'14.458"W$; (451,913.33 E, 6,360,492.2 N) was found to be the true extents of the foul area.

Office Notes

Concur, chart ledge and foul area as shown on the smooth sheet.

1.21) Profile/Beam - 7/1 from H11111 / R2NE 2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38621964° N, 135.80149804° W

Least Depth: -0.54 m

Timestamp: 2003-140.18:11:28.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 7/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140145 CFF rk new ext chd (17323) ldg

The CFF (AK-9703A) rock at 57°23'10.65"N, 135°48'06.56"W; (451,795.87 E, 6,360,673.05 N) was found to be the new extent of the charted (17323) ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	7/1	0.00	000.0	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF rock and charting the charted ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1) 0fm 2ft (17323_1, 531_1) -.6m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140145 CFF rk new ext chd (17323) ldg The CFF (AK-9703A) rock at

57°23'10.65"N, 135°48'06.56"W; (451,795.87 E, 6,360,673.05 N) was found to be the new

extent of the charted (17323) ledge.

1.22) Profile/Beam - 8/1 from H11111 / R2NE 2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38663274° N, 135.79035482° W

Least Depth: 0.01 m

Timestamp: 2003-140.18:22:46.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 8/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140190 CFF foul limit is new reef

The CFF (AK-9703A) foul limit at 57°23'12.93"N, 135°47'26.12"W; (452,462.34 E, 6,360,710.01) was found to be the extent of a new reef. The CFF (AK-9703A) rock at 57°23'13.016"N, 135°47'29.699"W; (452,412.89 E, 6,360,738.19 N) was found to be the high point of the new reef.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	8/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF foul limit nor the CFF rock and charting the new reef as depicted on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

Ofm (17320_1, 16016_1, 530_1) Ofm Oft (17323_1, 531_1) .0m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140190 CFF foul limit is new reef The CFF (AK-9703A) foul limit at

 $57^{\circ}23'12.93"N$, $135^{\circ}47'26.12"W$; (452,462.34 E, 6,360,710.01) was found to be the extent of a new reef. The CFF (AK-9703A) rock at $57^{\circ}23'13.016"N$, $135^{\circ}47'29.699"W$; (452,412.89 E,

6,360,738.19 N) was found to be the high point of the new reef.

1.23) Profile/Beam - 10/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38714812° N, 135.82427271° W

Least Depth: 0.57 m

Timestamp: 2003-140.18:53:18.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 10/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140324 CFF rk hp new reef

The CFF (AK-9703A) rock at 57°23'13.0"N, 135°49'24.65"W; (450,490.6, E 6,360,762.91 N) was found to be the high point of a new reef.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	10/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF rock and charting the new reef as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1) 0fm 2ft (17323_1, 531_1) .5m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: INFORM - 2140324 CFF rk hp new reef The CFF (AK-9703A) rock at 57°23'13.0"N,

135°49'24.65"W; (450,490.6, E 6,360,762.91 N) was found to be the high point of a new reef.

VALSOU - 0.57 m

1.24) Profile/Beam - 14/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38588561° N, 135.82600964° W

Least Depth: -0.98 m

Timestamp: 2003-140.19:33:27.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 14/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140475 Chd (17323) islet new ext chd (17323) ldg

The charted (17323) islet at 57°23'09.19"N, 135°49'34.77"W; (450,324 E, 6,360,643.91 N) was found to be the new extent of a charted ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	14/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the islet and charting the new extents of the ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (17320_1, 16016_1, 530_1) 0fm 3ft (17323_1, 531_1) -1.0m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140475 Chd (17323) islet new ext chd (17323) ldg The charted (17323) islet at

57°23'09.19"N, 135°49'34.77"W; (450,324 E, 6,360,643.91 N) was found to be the new extent

of a charted ledge.

1.25) Profile/Beam - 18/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.35164805° N, 135.76521750° W

Least Depth: -0.17 m

Timestamp: 2003-140.20:14:14.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 18/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140560 Chd (17323) rk new ext chd (17323) ldg

The charted (17323) rk at 57°21′05.87″N, 135°45′53.8″W; (453,963.31 E, 6,356,794.32 N) was found to be the new extent of a charted ledge. The charted (17323) foul limit surrounding the chd (17323) rock was covered with one hundred per cent SWMB.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	18/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock and the foul limit from the chart and charting the new extent of the ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

Ofm (17320_1, 16016_1, 530_1) Ofm Oft (17323_1, 531_1) -.2m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140560 Chd (17323) rk new ext chd (17323) ldg The charted (17323) rk at

 $57^{\circ}21'05.87"N$, $135^{\circ}45'53.8"W$; (453,963.31~E, 6,356,794.32~N) was found to be the new extent of a charted ledge. The charted (17323) foul limit surrounding the chd (17323) rock was

covered with one hundred per cent SWMB.

1.26) Profile/Beam - 21/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.34606808° N, 135.77343148° W

Least Depth: -0.24 m

Timestamp: 2003-140.20:34:46.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 21/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140660 Chd (17323) rk new ext chd (17323) ldg

The charted (17323) rock at 57°20'40.8"N, 135°46'26.46" W; (453,447.57 E, 6,356,127.04 N) was found to be the new extent of a charted ledge. Two other charted (17323) rocks at 57°20'42.122"N, 135°46'28.898"W; (453,395.4 E, 6,355,991.15 N) and 57°20'42.122"N, 135°46'28.898"W; (453,379.58 E, 6,356,049.32 N) were found to be new extents of the charted ledge. The CFF (AK-9703A) rock at 57°20'41.482"N, 135°46'26.497"W; (453,412.13 E, 6,356,042.73 N) was found to be the high point of the new extent of the charted ledge. The charted (17323) foul limit at 57°20'45.474"N, 135°46'23.365"W; (453,436.09 E, 6,356,154.89 N) and the CFF (AK-970A) foul limit at 57°20'40.798"N, 135°46'26.461"W; (453,400.4 E, 6,356,043.75 N) were found inside the new extents of the charted ledge.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	21/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the CFF and charted rocks and foul limits from the chart and charting the new extents of the ledge as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0fm (17320_1, 16016_1, 530_1) 0fm 1ft (17323_1, 531_1) -.3m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140660 Chd (17323) rk new ext chd (17323) ldg The charted (17323) rock at

 $57^{\circ}20'40.8"N$, $135^{\circ}46'26.46"W$; (453,447.57E,6,356,127.04N) was found to be the new

extent of a charted ledge. Two other charted (17323) rocks at 57°20'42.122"N,

135°46'28.898"W; (453,395.4 E, 6,355,991.15 N) and 57°20'42.122"N, 135°46'28.898"W; (453,379.58 E, 6,356,049.32 N) were found to be new extents of the charted ledge. The CFF (AK-9703A) rock at 57°20'41.482"N, 135°46'26.497"W; (453,412.13 E, 6,356,042.73 N) was found to be the high point of the new extent of the charted ledge. The charted (17323) foul limit at 57°20'45.474"N, 135°46'23.365"W; (453,436.09 E, 6,356,154.89 N) and the CFF (AK-970A) foul limit at 57°20'40.798"N, 135°46'26.461"W; (453,400.4 E, 6,356,043.75 N)

were found inside the new extents of the charted ledge.

Office Notes

1.27) Profile/Beam - 23/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.34604814° N, 135.77579877° W

Least Depth: -1.91 m

Timestamp: 2003-140.20:43:06.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 23/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140685 CFF foul is ext new reef

The CFF (AK-9703A) rock at 57°20'44.765"N, 135°46'32.326"W; (453,318.23 E, 6,356,143.33 N) was found to be the high point of a new reef. The surrounding foul limit at 57°20'45.768"N, 135°46'32.883"W (453,310.64 E; 6,356,173.44 N) was found to be the new extents of the reef.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	23/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends not charting the CFF foul limit or rock and charting the new reef as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

- -1fm (17320_1, 16016_1, 530_1)
- -1fm 0ft (17323_1, 531_1)
- -1.9m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140685 CFF foul is ext new reef The CFF (AK-9703A) rock at 57°20'44.765"N,

135°46'32.326"W; (453,318.23 E, 6,356,143.33 N) was found to be the high point of a new reef. The surrounding foul limit at 57°20'45.768"N, 135°46'32.883"W (453,310.64 E;

6,356,173.44 N) was found to be the new extents of the reef.

1.28) Profile/Beam - 24/1 from H11111 / R2NE_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.34583872° N, 135.77518805° W

Least Depth: 0.06 m

Timestamp: 2003-140.20:46:42.000 (05/20/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-140 / DP2140

Profile/Beam: 24/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140691 Chd (17323) rk is ext new reef

The charted (17323) rock at 57°20'45.72"N, 135°46'30.78"W; (453,344.39 E, 6,356,173.31 N) was found to be an extent of a new reef.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-140/DP2140	24/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart and charting the new reef as displayed on the DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0fm (17320_1, 16016_1, 530_1) 0fm 0ft (17323_1, 531_1) .0m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140691 Chd (17323) rk is ext new reef The charted (17323) rock at

57°20'45.72"N, 135°46'30.78"W; (453,344.39 E, 6,356,173.31 N) was found to be an extent of

a new reef.

1.29) Profile/Beam - 1/1 from H11111 / R2SB_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38489066° N, 135.78897456° W

Least Depth: 9.32 m

Timestamp: 2003-140.22:29:06.000 (05/20/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-140 / DP2140

Profile/Beam: 1/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140843 Chd (17323) rk disproval

The charted (17323) rk was disproved after conducting a 5 minute visual and echosounder star pattern search within a forty meter search radius. Sea conditions were 1ft chop, 1-2m swell, with 2m visibility in 9 meters of water.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-140/DP2140	1/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

5fm (17320_1, 16016_1, 530_1) 5fm 0ft (17323_1, 531_1) 9.3m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140843 Chd (17323) rk disproval The charted (17323) rk was disproved after

conducting a 5 minute visual and echosounder star pattern search within a forty meter search radius. Sea conditions were 1ft chop, 1-2m swell, with 2m visibility in 9 meters of water.

Concur

1.30) Profile/Beam - 2/1 from H11111 / R2SB_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38513933° N, 135.79006817° W

Least Depth: 9.99 m

Timestamp: 2003-140.22:32:07.000 (05/20/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-140 / DP2140

Profile/Beam: 2/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140846 Chd (17323) rk disproval

The charted (17323) rk was disproved after conducting a 5 minute visual and echosounder star pattern search within a fifty meter search radius. Sea conditions were 1ft chop, 1-2m swell, with 2m visibility in 9 meters of water.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-140/DP2140	2/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

5 ½fm (17320_1, 16016_1, 530_1) 5fm 3ft (17323_1, 531_1) 10.0m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140846 Chd (17323) rk disproval The charted (17323) rk was disproved after

conducting a 5 minute visual and echosounder star pattern search within a fifty meter search radius. Sea conditions were 1ft chop, 1-2m swell, with 2m visibility in 9 meters of water.

Office Notes

Concur, chart ledge as shown on the smooth sheet.

1.31) Profile/Beam - 3/1 from H11111 / R2SB_2003 / 2003-140 / DP2140

Survey Summary

Survey Position: 57.38263573° N, 135.76129371° W

Least Depth: 6.64 m

Timestamp: 2003-140.22:48:20.000 (05/20/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-140 / DP2140

Profile/Beam: 3/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

2140860 Chd (17323) rk disproval

The charted (17323) rk was disproved after conducting a 4 minute visual and echosounder star pattern search within a sixty meter search radius. Sea conditions were 1ft chop, 1-2m swell, with 2m visibility in 6 meters of water.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-140/DP2140	3/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

3 ½fm (17320_1, 16016_1, 530_1) 3fm 4ft (17323_1, 531_1) 6.6m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 2140860 Chd (17323) rk disproval The charted (17323) rk was disproved after

conducting a 4 minute visual and echosounder star pattern search within a sixty meter search radius. Sea conditions were 1ft chop, 1-2m swell, with 2m visibility in 6 meters of water.

Office Notes

Concur, chart area as shown on the smooth sheet.

1.32) Profile/Beam - 1/1 from H11111 / R2SB_2003 / 2003-157 / DP2157

Survey Summary

Survey Position: 57.38722833° N, 135.78995558° W

Least Depth: 7.15 m

Timestamp: 2003-157.19:13:36.000 (06/06/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-157 / DP2157

Profile/Beam: 1/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

215739 Chd (17323) rk disproval

The charted (17323) rk was disproved after conducting a 6 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were zero, 0 swell, with 4m visibility in 6 meters of water. The charted (17323) foul limit that surrounds the rock was also not there. The CFF (AK-9703A) kelp foul line at 57°23'15.702"N, 135°47'25.238"W; (452,507.07 E, 6,360,756.69 N) was found to be the accurate representation of the foul limit.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-157/DP2157	1/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

3 3/4fm (17320_1, 16016_1, 530_1) 3fm 5ft (17323_1, 531_1) 7.1m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes:

INFORM - 215739 Chd (17323) rk disproval The charted (17323) rk was disproved after conducting a 6 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were zero, 0 swell, with 4m visibility in 6 meters of water. The charted (17323) foul limit that surrounds the rock was also not there. The CFF (AK-9703A) kelp foul line at 57°23'15.702"N, 135°47'25.238"W; (452,507.07 E, 6,360,756.69 N) was found to be the accurate representation of the foul limit.

Office Notes

Concur

1.33) Profile/Beam - 2/1 from H11111 / R2SB_2003 / 2003-157 / DP2157

Survey Summary

Survey Position: 57.38480999° N, 135.81629668° W

Least Depth: 20.83 m

Timestamp: 2003-157.19:34:46.000 (06/06/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-157 / DP2157

Profile/Beam: 2/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

215776 Chd (17323) rk disproval

The charted (17323) rk was disproved after conducting a 7 minute visual and echosounder star pattern search within a 125 meter search radius. Sea conditions were zero, 0 swell, with 4m visibility. The rock was also covered with one hundred per cent SWMB.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-157/DP2157	2/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

11fm (17320_1, 16016_1, 530_1) 11fm (17323_1, 531_1) 20.8m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 215776 Chd (17323) rk disproval The charted (17323) rk was disproved after

conducting a 7 minute visual and echosounder star pattern search within a 125 meter search radius. Sea conditions were zero, 0 swell, with 4m visibility. The rock was also covered with

one hundred per cent SWMB.

Office Notes

Concur

1.34) Profile/Beam - 3/1 from H11111 / R2SB_2003 / 2003-157 / DP2157

Survey Summary

Survey Position: 57.38743362° N, 135.82293555° W

Least Depth: 10.01 m

Timestamp: 2003-157.19:41:35.000 (06/06/2003)

DP Dataset: H11111 / R2SB_2003 / 2003-157 / DP2157

Profile/Beam: 3/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

215777 Chd (17323) rk disproval

The charted (17323) rk was disproved after conducting a 4 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were 1ft chop, 1-2m swell, with 4m visibility in 9 meters of water.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2SB_2003/2003-157/DP2157	3/1	0.00	0.000	Primary

Hydrographer Recommendations

The Hydrographer recommends removing the rock from the chart.

Cartographically-Rounded Depth (Affected Charts):

5 ½fm (17320_1, 16016_1, 530_1) 5fm 3ft (17323_1, 531_1) 10.0m (500_1, 50_1)

S-57 Data

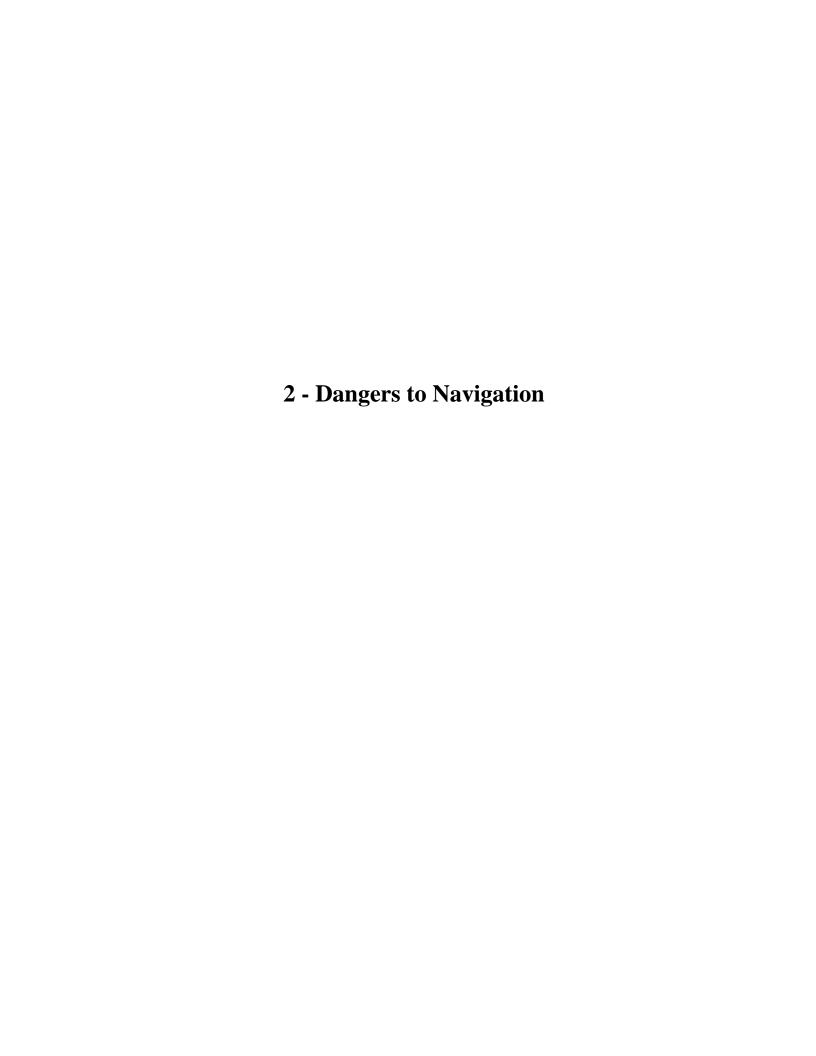
Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - 215777 Chd (17323) rk disproval The charted (17323) rk was disproved after

conducting a 4 minute visual and echosounder star pattern search within a 150 meter search radius. Sea conditions were 1ft chop, 1-2m swell, with 4m visibility in 9 meters of water.

Office Notes

Concur, chart area as shown on theesmooth sheet.



2.1) Profile/Beam - 1/1 from H11111 / R2NE_2003 / 2003-123 / DP2123

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.37994782° N, 135.76331338° W

Least Depth: 1.52 m

Timestamp: 2003-123.17:11:39.000 (05/03/2003)

DP Dataset: H11111 / R2NE_2003 / 2003-123 / DP2123

Profile/Beam: 1/1

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

212396 New rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11111/R2NE_2003/2003-123/DP2123	1/1	0.00	0.000	Primary

Hydrographer Recommendations

Chart rock.

Cartographically-Rounded Depth (Affected Charts):

0 3/4fm (17320_1, 16016_1, 530_1) 0fm 5ft (17323_1, 531_1) 1.5m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)

Attributes: INFORM - 212396 New rk

VALSOU - 1.52 m

Office Notes

Concur

2.2) Profile/Beam - 610/16 from h11111 / r4re_2003 / 2003-121 / 174_2203

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.38697365° N, 135.83933079° W

Least Depth: 10.09 m

Timestamp: 2003-121.22:04:30.621 (05/01/2003)

Survey Line: h11111 / r4re_2003 / 2003-121 / 174_2203

Profile/Beam: 610/16

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r4re_2003/2003-121/174_2203	610/16	0.00	000.0	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

5 ½fm (17320_1, 16016_1, 530_1) 5fm 3ft (17323_1, 531_1) 10.1m (500_1, 50_1)

S-57 Data

[None]

Office Notes

2.3) Profile/Beam - 408/65 from h11111 / r5re_2003 / 2003-114 / 080_2128

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.38281816° N, 135.78513024° W

Least Depth: 4.54 m

Timestamp: 2003-114.21:29:38.057 (04/24/2003)

Survey Line: h11111 / r5re_2003 / 2003-114 / 080_2128

Profile/Beam: 408/65

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r5re_2003/2003-114/080_2128	408/65	0.00	000.0	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

2 ½fm (17320_1, 16016_1, 530_1) 2fm 3ft (17323_1, 531_1) 4.5m (500_1, 50_1)

S-57 Data

[None]

Office Notes

2.4) Profile/Beam - 229/33 from h11111 / r5re_2003 / 2003-120 / 109_2019

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.37194961° N, 135.76108183° W

Least Depth: 8.50 m

Timestamp: 2003-120.20:20:11.143 (04/30/2003)

Survey Line: h11111 / r5re_2003 / 2003-120 / 109_2019

Profile/Beam: 229/33

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r5re_2003/2003-120/109_2019	229/33	0.00	0.000	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

4 ½fm (17320_1, 16016_1, 530_1) 4fm 4ft (17323_1, 531_1) 8.5m (500_1, 50_1)

S-57 Data

[None]

Office Notes

2.5) Profile/Beam - 360/173 from h11111 / r4re_2003 / 2003-123 / 919_2059

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.36999565° N, 135.75523239° W

Least Depth: 7.00 m

Timestamp: 2003-123.21:00:27.925 (05/03/2003)

Survey Line: h11111 / r4re_2003 / 2003-123 / 919_2059

Profile/Beam: 360/173

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r4re_2003/2003-123/919_2059	360/173	0.00	0.000	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

3 ³4fm (17320_1, 16016_1, 530_1) 3fm 5ft (17323_1, 531_1) 7.0m (500_1, 50_1)

S-57 Data

[None]

Office Notes

2.6) Profile/Beam - 469/230 from h11111 / r4re_2003 / 2003-123 / 158_2114

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.36759439° N, 135.75039978° W

Least Depth: 2.50 m

Timestamp: 2003-123.21:15:50.755 (05/03/2003)

Survey Line: h11111 / r4re_2003 / 2003-123 / 158_2114

Profile/Beam: 469/230

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r4re_2003/2003-123/158_2114	469/230	0.00	0.000	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

1 ¹/₄fm (17320_1, 16016_1, 530_1) 1fm 2ft (17323_1, 531_1) 2.5m (500_1, 50_1)

S-57 Data

[None]

Office Notes

2.7) Profile/Beam - 391/45 from h11111 / r5re_2003 / 2003-123 / 141_1951

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.35805962° N, 135.74483183° W

Least Depth: 16.27 m

Timestamp: 2003-123.19:52:11.575 (05/03/2003)

Survey Line: h11111 / r5re_2003 / 2003-123 / 141_1951

Profile/Beam: 391/45

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r5re_2003/2003-123/141_1951	391/45	0.00	0.000	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

8 ³/₄fm (17320_1, 16016_1, 530_1) 8fm 5ft (17323_1, 531_1) 16.2m (500_1, 50_1)

S-57 Data

[None]

Office Notes

2.8) Profile/Beam - 316/81 from h11111 / r5re_2003 / 2003-146 / 008_1843

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.34025565° N, 135.74618602° W

Least Depth: 8.53 m

Timestamp: 2003-146.18:44:09.370 (05/26/2003)

Survey Line: h11111 / r5re_2003 / 2003-146 / 008_1843

Profile/Beam: 316/81

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r5re_2003/2003-146/008_1843	316/81	0.00	000.0	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

4 ½fm (17320_1, 16016_1, 530_1) 4fm 4ft (17323_1, 531_1) 8.5m (500_1, 50_1)

S-57 Data

[None]

Office Notes

2.9) Profile/Beam - 2478/14 from h11111 / r5re_2003 / 2003-141 / 077_1900

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.32469400° N, 135.78468844° W

Least Depth: 2.19 m

Timestamp: 2003-141.19:03:29.704 (05/21/2003)

Survey Line: h11111 / r5re_2003 / 2003-141 / 077_1900

Profile/Beam: 2478/14

Charts Affected: 17323_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r5re_2003/2003-141/077_1900	2478/14	0.00	0.000	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

1 ¼fm (17325_1, 17320_1, 16016_1, 530_1) 1fm 1ft (17323_1, 531_1) 2.2m (500_1, 50_1)

S-57 Data

[None]

Office Notes

2.10) Profile/Beam - 226/24 from h11111 / r5mb_2002 / 2002-136 / 018_1831

DANGER TO NAVIGATION

Survey Summary

Survey Position: 57.36739683° N, 135.82174895° W

Least Depth: 15.20 m

Timestamp: 2002-136.18:35:39.474 (05/16/2002)

Survey Line: h11111 / r5mb_2002 / 2002-136 / 018_1831

Profile/Beam: 226/24

Charts Affected: 17323_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Shoal sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11111/r5mb_2002/2002-136/018_1831	226/24	0.00	0.000	Primary

Hydrographer Recommendations

Chart sounding

Cartographically-Rounded Depth (Affected Charts):

8 1/4fm (17320_1, 16016_1, 530_1) 8fm 2ft (17323_1, 531_1) 15.2m (500_1, 50_1)

S-57 Data

[None]

Office Notes



UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL OCEAN SERVICE Silver Spring, Maryland 20910

garrend

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: December 2, 2004

HYDROGRAPHIC BRANCH: Pacific

HYDROGRAPHIC PROJECT: OPR-0112-RA-2003 HYDROGRAPHIC SHEET: H11111-revised

LOCALITY: Salisbury Sound, Alaska TIME PERIOD: May 13 - May 25, 2002 April 22 - June 6, 2003

TIDE STATION USED: 945-1600 Sitka

Lat. 57° 03.1' N Lon. 135° 20.5'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.791 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: SEA201A, PAC296

Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the new 1983-2001 National Tidal Datum Epoch (NTDE).

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION





Final tide zone node point locations for OPR-O112-RA-2003, H11111 - revised.

Format:

Tide Station (in recommended order of use)

Average Time Correction (in minutes)

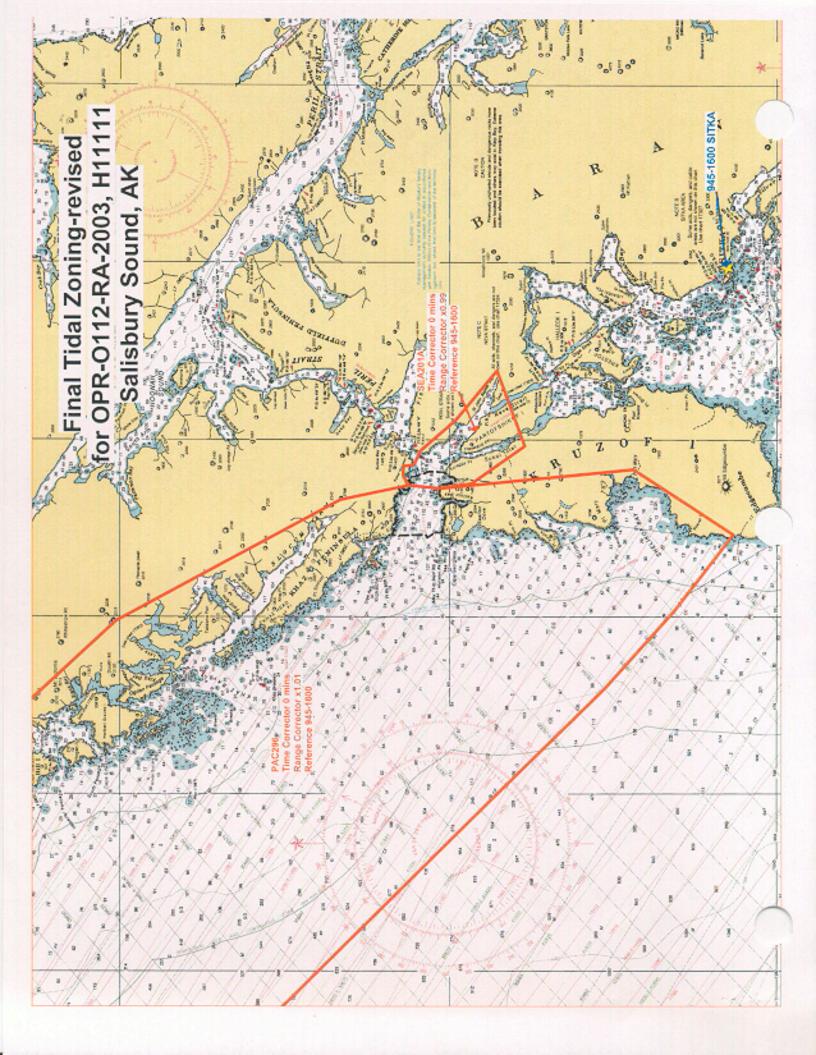
Range Correction

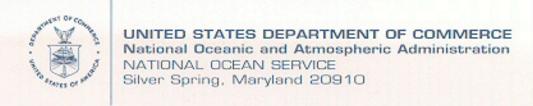
Longitude in decimal degrees (negative value denotes

Longitude West),

Latitude in decimal degrees

	Tide Station Order	AVG Time Correction	Range Correction
Zone PAC296 -136.299637 57.838585 -137.250768 57.785324 -136.705497 57.487237 -136.134069 57.175464 -135.987941 57.104842 -135.84452 57.044412 -135.721965 57.146614 -135.75757 57.34186 -135.751821 57.374727 -135.779197 57.443796 -136.006865 57.66962 -136.299637 57.838585	945-1600	0	1.01
Zone SEA201A -135.751821 57.374727 -135.75757 57.34186 -135.748221 57.310146 -135.677763 57.256337 -135.536277 57.284567 -135.629869 57.326705 -135.687406 57.362636 -135.713991 57.368695 -135.715543 57.379779 -135.733426 57.379779 -135.751821 57.374727	945-1600	0	0.99





TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: December 18, 2003

HYDROGRAPHIC BRANCH: Pacific

HYDROGRAPHIC PROJECT: OPR-0112-RA-2003 HYDROGRAPHIC SHEET: H11111-revised

LOCALITY: Salisbury Sound, Alaska TIME PERIOD: May 13 - June 6, 2003

TIDE STATION USED: 945-1600 Sitka

Lat. 57° 03.1' N Lon. 135° 20.5'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.791 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: SEA201A, PAC296

Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the new 1983-2001 National Tidal Datum Epoch (NTDE).

Chief, Requirements and Development Division





Final tide zone node point locations for OPR-O112-RA-2003, H11111-revised

Format:

Tide Station (in recommended order of use) Average Time Correction (in minutes)

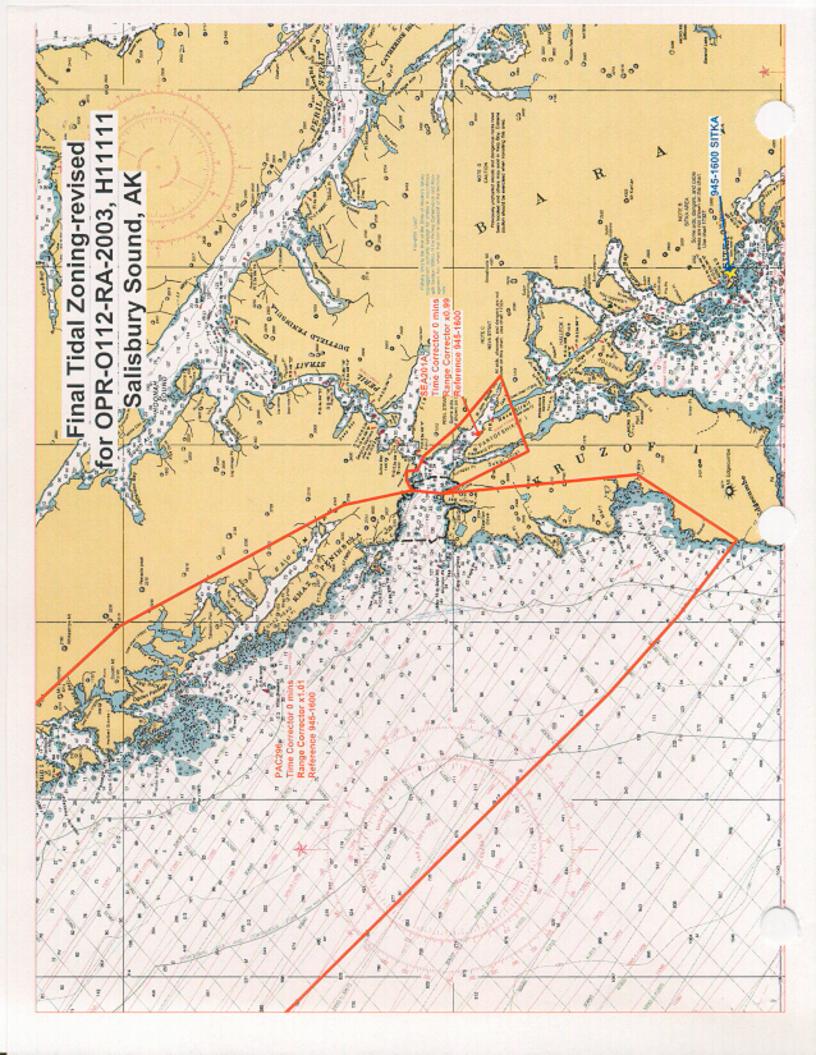
Range Correction

Longitude in decimal degrees (negative value denotes

Longitude West),

Latitude in decimal degrees

	Tide Station Order	AVG Time Correction	Range Correction
Zone PAC296 -136.299637 57.838585 -137.250768 57.785324 -136.705497 57.487237 -136.134069 57.175464 -135.987941 57.104842 -135.721965 57.146614 -135.75757 57.34186 -135.751821 57.374727 -135.779197 57.443796	945-1600	0	1.01
-136.006865 57.66962 -136.299637 57.838585 Zone SEA201A -135.751821 57.374727 -135.75757 57.34186 -135.677763 57.256337 -135.536277 57.284567 -135.629869 57.326705 -135.687406 57.362636 -135.713991 57.368695 -135.715543 57.379779 -135.733426 57.379779 -135.751821 57.374727	945-1600	0	0.99



APPROVAL SHEET H111111

Initial Approvals:

The survey and associated records have been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The survey records and digital data comply with NOS requirements except where noted in the Descriptive Report and are adequate to supersede prior surveys and nautical charts in the common area.

Bruce Olmstead

Cartographic Team

Pacific Hydrographic Branch

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Descriptive Report.

Donald W. Haines CDR, NOAA

Chief, Pacific Hydrographic Branch

Date: /5 FaB 2006