H11363

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic Survey

Field No. N/A

Registry No. H11363

LOCALITY

State Alaska

General Locality Cape Decision

Sublocality Southern Portion of the Spanish Islands

2005

CHIEF OF PARTY

Commander John Lowell, NOAA

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28 (11-72)

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

REGISTRY No

HYDROGRAPHIC TITLE SHEET

H11363

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

State **Alaska**

General Locality **Cape Decision**

Sub-Locality **Southern Portion of Spanish Islands**

Scale **1:10,000** Date of Survey **April 23 - May 30, 2005**

Instructions dated **3/21/2005** Project No. **OPR-O167-FA**

Vessel **NOAA Ship FAIRWEATHER, Launch 1010, Launch 1018, Skiff 1803, Skiff 2302**

Chief of party **CDR John E. Lowell, Jr., NOAA**

Surveyed by **ST Keene, CST Morgan, LT Wetzler**

Soundings by echo sounder, hand lead, pole **Reson 8101, Reson 8111ER**

Graphic record scaled by **N/A**

Graphic record checked by **N/A** Automated Plot **N/A**

Verification by **Sarah Wolfskehl** **Evaluation by Kurt Brown**

Soundings in **Meters** at **MLLW**

REMARKS: **All times are UTC.**

The purpose of this survey was to provide contemporary surveys to update National Ocean Service (NOS) nautical charts. All Separates are filed with the hydrographic data. Revisions and end notes in red were generated during office processing. Page numbering may be interrupted or non-sequential.

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

Descriptive Report to Accompany Hydrographic Survey H11363

Project OPR-O167-FA
Cape Decision, Alaska
Scale 1:10,000
April - May 2005
NOAA Ship FAIRWEATHER
Chief of Party: Commander John E. Lowell, Jr., NOAA

A. AREA SURVEYED

The survey area was located in Cape Decision, within the sub-locality of the Southern portion of the Spanish Islands. This survey corresponds to Sheet B in the sheet layout provided with the Letter Instructions, as shown in Figure 1 below. The survey area is bounded on the Southwest corner at 55°53'00"N, 134°16'00"W and the Northeast corner at 56°00'00"N, 134°00'00"W.

Data acquisition was conducted from April 23 to May 30, 2005 (DN 113 to DN 150).

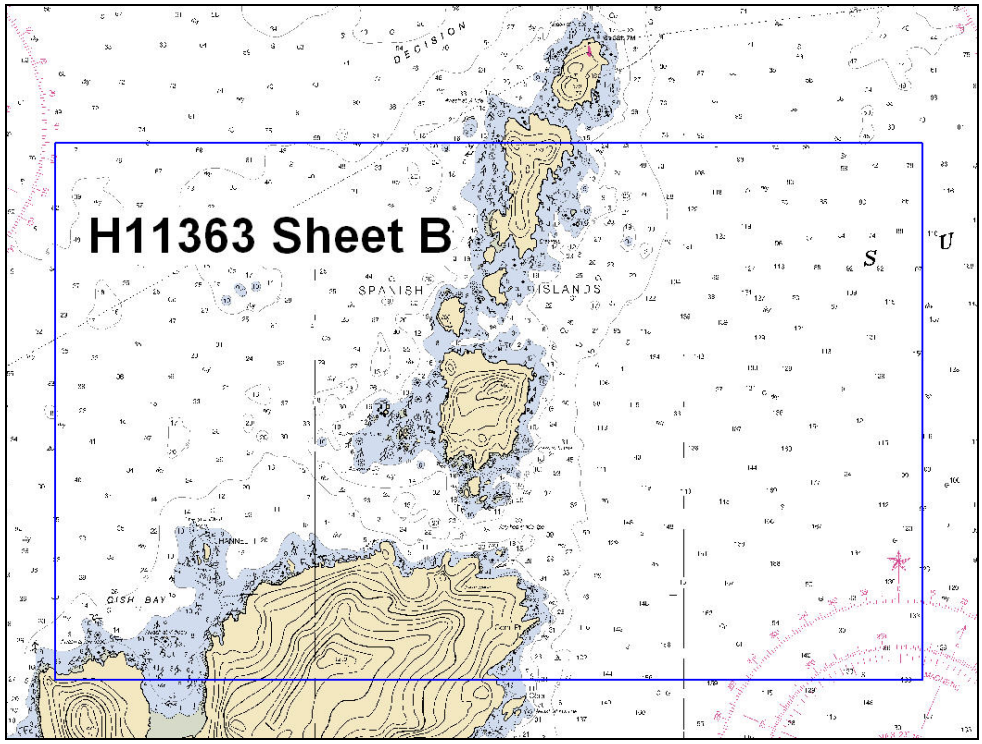


Figure 1: OPR-O167-FA H11363 Sheet B Sheet Limits

One hundred percent multibeam echosounder (MBES) coverage was obtained in the survey area at least to depths of eight meters. When conditions allowed, multibeam echosounder (MBES) data was acquired parallel to contours and at line spacing of no less than 25 meters in depths between four and eight meters. Additional coverage was obtained in order to determine least depths over features or shoals.

Shoreline data were acquired for H11363. These data were attributed as S-57 objects for submittal.

B. DATA ACQUISTION AND PROCESSING

A complete description of data acquisition and processing systems and survey vessels can be found in the *NOAA Ship FAIRWEATHER Hydrographic Systems Certification Report 2005*[1], submitted under a separate cover. Quality control procedures and data processing methods are listed and described in the *OPR-O167-FA-05 Data Acquisition and Processing Report* (DAPR)[2], submitted under separate cover. Items specific to this survey and any deviations from the aforementioned report are discussed in the following sections.

B1. Equipment and Vessels

Equipment and vessels used for data acquisition and survey operations during this survey are listed in Table 1.

	FAIRWEATHER	Launch 1010	Launch 1018	Ambar 550	Ambar 700
Hull Registration Number	S220	1010	1018	1803	2302
Builder	Aerojet-General Shipyard	The Boat Yard, Inc.	The Boat Yard, Inc.	Marine Silverships, Inc	Marine Silverships, Inc
Length Overall	231 feet	28’ 10”	28’ 10”	18’	23’
Beam	42 feet	10’ 8”	10’ 8”	8’ 6”	9’ 4”
Draft, Maximum	15’ 6”	4’ 0” DWL	4’ 0” DWL	1’ 5”	1’ 4”
Cruising Speed	12.5 knots	24 knots	24 knots	20 knots	22 knots
Max Survey Speed	10 knots	10 knots	10 knots		
Primary Echosounder	RESON 8111 & RESON 8160	RESON 8101	RESON 8101		
Sound Velocity Equipment	SBE 19plus & 45, MVP 200	SBE 19plus	SBE19plus		
Attitude & Positioning Equipment	POS/MV V3	POS/MV V3	POS/MV V3		
Type of operations	MBES	MBES, Tide	MBES	Tide, HORCON	Shoreline

Table 1: Vessel Inventory

No vessel configurations used during data acquisition deviated from those described in the DAPR.

B2. Quality Control

Multibeam data for survey H11363 were manually examined by the Hydrographer in CARIS subset mode. The internal consistency and integrity were found to be good[3].

Crosslines

Shallow water multibeam crosslines for this survey totaled 35.66 linear nautical miles (lnm), comprising 12.6% of the 282.15 lnm of main scheme MBES hydrography.

The Hydrographer has determined, through manual examination of the data, that the crossline agreement with main scheme data meet the vertical accuracy requirements as stated in the *NOS Hydrographic Surveys Specifications and Deliverables*[4].

Junctions

In near shore areas, survey H11363 junctions with H11209 of project OPR-O167-KR, completed in June, 2003[5]. Lidar survey H11209 was done with Tenix LADS MKII lidar system at a scale of 1:10,000. Common areas for the two surveys were reviewed in CARIS subset Editor for consistency and the sonar data were found to be in good agreement with the lidar data. The MBES data density was greater and features were detected that were not visible in the lidar data. In areas of overlap, the Hydrographer recommends favoring MBES data over lidar data for charting[6].

The Northern edge of survey H11363 junctions with H11362, which is Sheet A of OPR-O167-FA, completed in September, 2004. Survey H11362 was a MBES survey done by the FAIRWEATHER at a scale of 1:10,000. The area of overlap between the sheets was reviewed in CARIS Subset Editor for consistency and data were found to be in good general agreement within one meter.

Northwest portions of survey H11363 junction with H11364, which is Sheet C of OPR-O167-FA, completed in May, 2005. Survey H11364 was a MBES survey done by the FAIRWEATHER at a scale of 1:20,000. The area of overlap between the sheets was reviewed in CARIS Subset Editor for consistency and data were found to be in very good general agreement within half a meter.

The South and West edges of survey H11363 junction with H11470, which is Sheet G of OPR-O167-FA, completed in May, 2005. Survey H11470 was a MBES survey done by the FAIRWEATHER at a scale of 1:10,000. The area of overlap between the sheets was reviewed in CARIS Subset Editor for consistency and data were found to be in very good general agreement within half a meter.

The sheet limits and area of overlap for survey H11363 with H11209, H11362, H11364 and H11470 are shown in Figure 2.

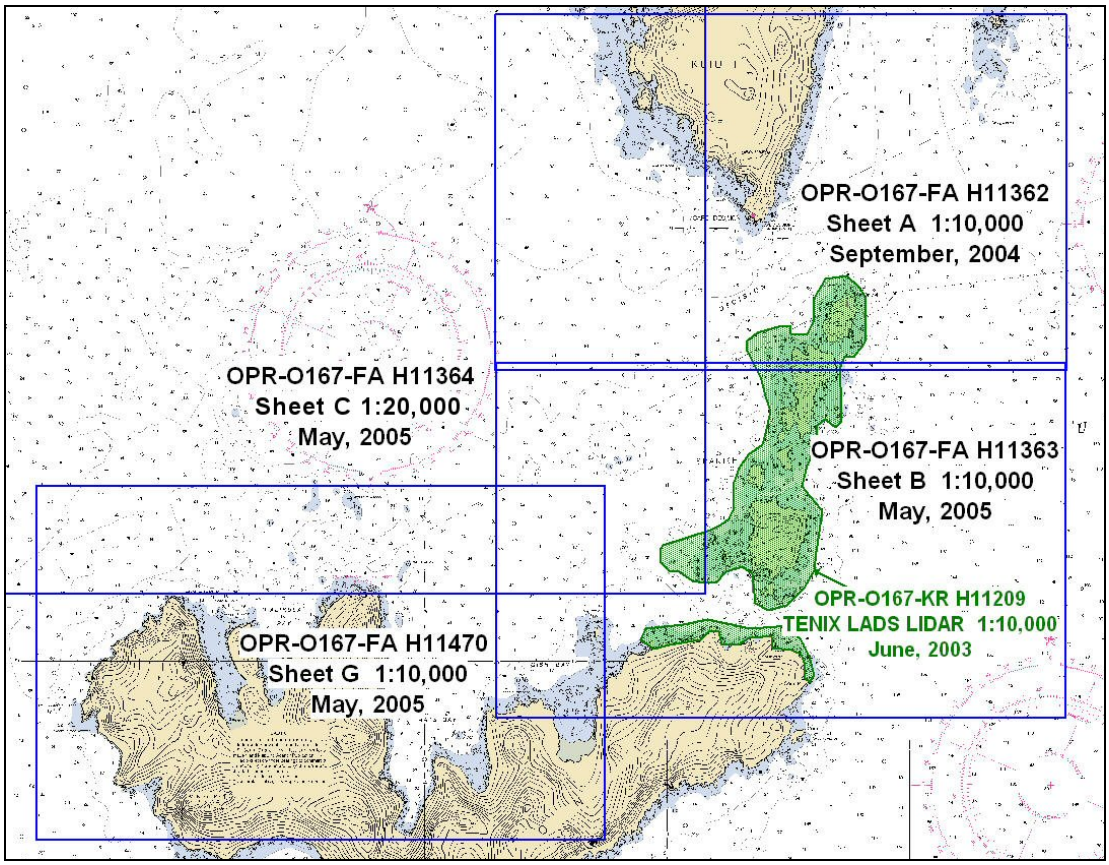


Figure 2: Junctions for Survey H11363

Quality Control Checks

MBES quality control checks were conducted as discussed in the quality control section of the *OPR-O167-FA-05 Data Acquisition and Processing Report.*

Data Quality Factors

There were no significant sources of error affecting the quality of data from survey H11363[7].

COVERAGE ASSESSMENT:
Coverage assessment was determined using the following base surface resolutions listed below in Table 2[8].

Depth Ranges (m)		Resolution (m)
Low	High	
0	35	0.8
20	60	2
50	150	5
140	300	12
280	550	22

Table 2 Depth Ranges and Resolutions

Accuracy Standards

Total propagated error (TPE) filters were applied in CARIS HIPS to all sounding data from survey H11363. Only those soundings that satisfied the International Hydrographic Organization (IHO) requirements for both horizontal and vertical accuracy based on depth were accepted, as specified in the *NOS Hydrographic Surveys Specifications and Deliverables*. Data for this survey meet the prescribed accuracy standards[9].

B3. Corrections to Echo Soundings

Data reduction procedures for survey H11363 conform to those detailed in the *OPR-O167-FA-05 Data Acquisition and Processing Report*, or as discussed below.

SOUND VELOCITY:
There were several lines from May 11, 2005 (DN 131), acquired by Launch 1018 within a small bay, that exhibited some sound velocity error. Instead of using the concatenated .svp file, an individual cast was applied to these lines, which reduced the amount of sound velocity error in the data. The affected lines are noted in the acquisition log, which is included in Separates folder.

C. HORIZONTAL AND VERTICAL CONTROL

A complete description of horizontal and vertical control for survey H11363 can be found in the *OPR-O167-FA-05 Horizontal and Vertical Control Report*[10], 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, with differential corrections received from the U.S. Coast Guard beacon at Level Island (295 kHz).

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 H11363.

FAIRWEATHER personnel installed tide gauge #09 (S/N 002332), a Sutron 8210 “bubbler” tide gauge, at the tertiary station listed below. The gauge was installed in order to provide information to Center for Operational Oceanographic Products and Services (CO-OPS N/OPS1) for the determination of time and height correctors, in accordance with the Project Instructions. No calibration or quality assurance documentation was provided with the gauge.

Station Name	Station Number	Type of Gauge	Date of Installation	Date of Removal
Kuiu Island	945-0913	Tertiary 30 Day	April 22, 2005	May 31, 2005

CO-OPS does not provide calibration or quality assurance documentation to the FAIRWEATHER. FAIRWEATHER personnel are responsible for installation and removal of the water level gauges. CO-OPS is responsible for delivering final approved vertical correctors to the processing branch for application to the hydrographic data set.

Refer to the *OPR-O167-FA-05 Horizontal and Vertical Control Report* further information about the tide station.

All data were reduced to MLLW using unverified observed tides from station Sitka, AK by applying tide file 9451600.tid and time and height correctors through the revised zone corrector file O167FA2005CORP.zdf.

CO-OPS will provide approved vertical correctors to the Pacific Hydrographic Branch, where approved (smooth) tides will be applied to the survey data during final processing[11]. A request for delivery of final approved (smooth) tides for survey H11363 was forwarded to N/OPS1 on June 7, 2005 in accordance with the Preliminary Field Procedures Manual v1.1, dated March 2005 (FPM). A copy of the request is included in Appendix III[12].

The OPR-O167-FA-05 Horizontal and Vertical Control Report was originally transmitted to N/OPS1, CO-OPS, on August 22, 2005. The report was not received by CO-OPS, so it was retransmitted on October 31, 2005.

D. RESULTS AND RECOMMENDATIONS

D.1 Chart Comparison

Using the shoal biased bathymetric depths inserted in Pydro, survey H11363 was compared with charts 17320 (16th Ed.; December, 2003, 1:217,828), 17360 (33rd Ed.; May, 2003, 1:217,828) and 17402 (10th Ed.; August, 2002, 1:40,000)[13].

A 4.8 fathoms sounding was measured over a charted 10 fathoms sounding on all charts, to the west of the large southern island. The least depth was flagged as Outstanding in CARIS HIPS & SIPS and imported into Pydro. It was flagged as a DtoN in Pydro and addressed in the H11363_Features.pdf report, located in Appendix I. Refer to the Dangers to Navigation section of this report for more information.

Chart 17320

Chart 17320 (16th Ed.; December, 2003, 1:217,828) has been updated with the Notice to Mariners through Dec 20/03 and Local Notice to Mariners Dec 2/03. The Notice to Mariners through June 23/05 were consulted. There were no new changes within the survey area. Depths from survey H11363 generally agreed with depths on chart 17320 within three fathoms[14].

Chart 17360

Chart 17360 (33rd Ed.; May, 2003, 1:217,828) has been updated with the Notice to Mariners through May 17/03 and Local Notice to Mariners Apr 29/03. The Notice to Mariners through June 23/05 were consulted. There were no new changes within the survey area. Depths from survey H11363 generally agreed with depths on chart 17360 within three fathoms[15].

Chart 17402

Chart 17402 (10th Ed.; August, 2002, 1:40,000) has been updated with the Notice to Mariners through Aug 31/02 and Local Notice to Mariners Aug 20/02. The Notice to Mariners through June 23/05 were consulted. In the NM 39/04, there was a dangerous submerged rock positioned at 55°54'46.9"N , 134°12'56.2"W. This rock corresponds to the lidar investigation 83, which was addressed during acquisition of shoreline data for survey H11363. Refer to the H11363_Features.pdf report in Appendix I and the Shoreline sections of this report for more information[16].

The area between the large southern island and the small island to the northwest is charted as eight fathoms. A five fathom sounding was noted just to the west of the charted eight fathoms, but the area was not considered navigationally significant, so the shoal was not flagged as a DtoN in Pydro[17].

Other depths from survey H11363 generally agreed with depths on chart 17402 within one to two fathoms[18].

Chart Comparison Recommendations

The Hydrographer has determined that bottom coverage requirements have been met and data accuracy meets IHO specifications based on depth. The BASE surfaces and associated HDCS data are adequate to supersede prior surveys in their common areas[19]. Shoal soundings near shore not covered with multibeam data should be retained[20]. Final chart comparisons will be made at the Pacific Hydrographic Branch after the application of smooth tides.

Automated Wreck and Obstruction Information System (AWOIS) Investigations

There was one AWOIS item located within the limits of H11363. It is addressed in the H11363_Features.pdf report, located in Appendix I.

Dangers to Navigation

One Danger to Navigation was found in the survey area[21]. It was reported to the Mapping and Charting Division for final submission to the Seventeenth Coast Guard District on August 8, 2005. A copy of the preliminary Danger to Navigation Report is included with the Preliminary Smooth Sheet.

D.2 Additional Results

Shoreline Source

Source CFF shoreline for this sheet was taken from photogrammetric survey AK0202 (NAD 83) GC-10546, at the scale of 1:30,000. The CFF shoreline was imported to CARIS Notebook 2.2 Beta as an editable layer named H11363_Edited_CFF_Shoreline.hob, with all objects having appropriate S57 attribution. Due to the fact that the source file from NOAA's Remote Sensing Division (RSD) contained the weed/kelp delineation as a line feature, it had to be imported into the .hob file as a vegetation line. Correct S57 attribution does not allow WEDKLP to be a line feature.

The source lidar shoreline in the H11363_Lidar_Shoreline.hob file was compiled from MapInfo tables provided to the FAIRWEATHER by Kim Sampadian in August 2004. The MapInfo tables were converted to .shp file format imported into CARIS Notebook using the Object Import Utility, whenever possible. Certain .shp files could not be directly imported into Notebook. These .shp files were parsed into Pydro, exported from Pydro in .xml format, then imported into Notebook using the Pydro Data Import function. The H11363_Lidar_Shoreline.hob file consists of lidar MHW with S-57 attribution COALNE, lidar LW with S-57 attribution DEPCNT (unable to designate VALDCO as 0 due to Notebook limitations), lidar rocks with S-57 attribution UWTROC, and lidar weed/kelp with S-57 attribution WEDKLP.

Lidar Investigations were imported into Pydro as Chart GPs from the SITKA_CHART COMPARISON.xls Excel spreadsheet. The Pydro PSSChartGPs match the items marked Yes under the Recommend Further Investigation column. The LIDAR_ReqFldWrk.TAB MapInfo table was utilized in creating the boat sheet used during shoreline verification.

Features from the edition of chart 17402 provided with the Letter Instructions that were not depicted by the source shoreline data were digitized with S57 attribution to H11363_CHD17402_Shoreline.hob in CARIS Notebook, to be displayed for field verification.

Shoreline Verification

FAIRWEATHER personnel conducted limited shoreline verification at times near predicted low water, in accordance with the Standing Project Instructions. Detached positions (DPs) and generic positions (GPs) acquired during shoreline verification were recorded in TerraSync and on paper DP forms. Scanned copies of the DP forms are included in the digital Separates folder and hard copies can be found with the *Separates to be Included with Survey Data*[22]. In addition, annotations describing shoreline were recorded on hard copy plots of the digital shoreline.

Shoreline Data Processing

Positions acquired during shoreline verification operations were processed in GPS Pathfinder Office and inserted into Pydro using the Generic GPs/DPs Import tool. Features were entered as Detached Positions (DPs) when tide correctors were required, while Generic Positions (GPs) were used if no tide correction was needed. The DPs and GPs indicate new features, revisions to features, or features not found during

shoreline verification. A CartoAction of Add, Modify, Delete, or None was assigned to each item in Pydro, and all features were S57 attributed.

All primary detached and generic positions were imported from the Pydro .xml to four separate stand alone .hob files in CARIS Notebook 2.2 Beta and later, CARIS Notebook 2.2, after the update became available. These files were named H11363_Add_Features, H11363_Modify_Features, H11363_Delete_Features, or H11363_None_Features. Features to be retained as depicted by the source shoreline files were left in the appropriate source layer as H11363_Edited_CFF_Shoreline, H11363_Lidar_Shoreline, or H11363_CHD17402_Shoreline. Field notes made by the Hydrographer on the boat sheets and DP forms were transferred to the remarks field for each feature.

Positions of lidar features were found to be more accurate than CFF positions of the same features. Lidar features also included a height value, therefore, the Hydrographer generally chose to use lidar features over CFF features.

Features from the source CFF shoreline that could not be verified in the field were left in the H11363_Edited_CFF_Shoreline.hob file and flagged with CARIS Notebook Marker text. Due to the large number of lidar features that could not be verified in the field, a separate layer was created called H11363_Unverified_Lidar_Rocks.hob. The unverified lidar rocks were copied to this layer and also left in the H11363_Lidar_Shoreline.hob layer. Any CEF features or lidar investigation items that could not be verified in the field were left Unresolved in Pydro.

Kelp and vegetation were not addressed in the field, due to their seasonal nature. The CFF vegetation line and lidar weed/kelp features were left in the H11363_Edited_CFF_Shoreline.hob and H11363_Lidar_Shoreline.hob layers respectively, without annotations from the Hydrographer. However, it was noted during field verification that the CFF vegetation line was a fairly accurate representation of the extent of kelp in the area.

Source Shoreline Changes, New Features and Charted Features

Items for survey H11363 associated with a detached or generic position that needed further discussion were flagged Report in Pydro. Investigation or survey methods were listed under the Remarks tab and, when appropriate, recommendations to the cartographer were included in the Recommendations tab. A survey feature report for shoreline items was generated and included as H11363_Features_Report.pdf in Appendix I[23].

Three .hob layers, named H11363_Add.hob, H11363_Modify.hob and H11363_Delete.hob, were created in CARIS Notebook for any features not in Pydro. New items were digitized to the Add layer, while existing features from the CFF, lidar and chart were transferred to the Modify or Delete layers, depending on the cartographic action deemed appropriate by the Hydrographer.

Shoreline Recommendations

Rocks which were considered to be significant high points of ledges, reefs or foul areas were moved to the H11363_Modify.hob, or H11363_Modify_Features.hob layers. The Hydrographer believes that these significant rocks should be retained for charting.

Along the North shore of Coronation Island, from Gish Bay to Cora Island, the CFF vegetation line closely follows the demarcation of the charted foul area. Where the two do not agree, the Hydrographer recommends retaining the foul area as charted and using the vegetation line for reference to kelp only.

The Hydrographer recommends that the shoreline depicted in the CARIS Notebook files and final sounding files supersede and complement shoreline information compiled on the CFF, lidar and charts[24].

Aids to Navigation

There were no aids to navigation within the survey limits[25].

Bottom Samples

Due to large number of historic sites within the sheet limits, bottom sample sites for survey H11363 were chosen only in depths less than 100m, as required by the *Preliminary Field Procedures Manual v1.1*, dated March, 2005. The historic sites in those depths were then reduced further, so that bottom samples were only taken at intervals of approximately 2000m, or within possible anchorage areas. This procedure was approved by NOAA's Hydrographic Survey Division (HSD) and a copy of the correspondence can be found in Appendix IV.

Bottom samples are included as seabed classifications along with the other S57 features in the Pydro Preliminary Smooth Sheet. The bottom sample positions were also imported to the Notebook H11363_Add_Features.hob file[26].

E. Supplemental Reports

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

Title	Date Sent	Office
Hydrographic Systems Certification Report 2005	April 18, 2005	N/CS34
OPR-O167-FA-05 Data Acquisition and Processing Report	November 15, 2005	N/CS34
OPR-O167-FA-05 Horizontal and Vertical Control Report	August 22, 2005	N/CS34, N/OPS1
Resent Horizontal and Vertical Control Report	October 31, 2005	N/OPS1

Revisions Compiled During Office Processing and Certification

[1] Filed with Project Records
[2] Filed with Project Records
[3] Concur
[4] Concur
[5] Lidar survey H11209 was compiled to HCell H11363
[6] Concur, MBES data supersedes Lidar data, unless a shoaler Lidar sounding exists. Lidar data is not used to disprove charted features.
[7] Concur
[8] Base surfaces were recomputed and refinalized at higher resolution intervals as follows:
0.8 meter resolution (0 - 35 meters)
2.0 meter resolution (20-60meters)
5.0 meter resolution (50-150 meters)
12 meter resolution (140-550 meters)
[9] Concur
[10] Filed with Project Records
[11] Final Approved Tides were applied by the Pacific Hydrographic branch on 8/2/2006. The Tide Note is attached.
[12] Smooth Tides were received by the Branch on March 8th 2006
[13] Office chart comparisons were performed with charts 17320 (18th Ed.; March, 2008, 1:217,828), 17360 (35rd Ed.; June, 2008, 1:217,828) and 17402 (11th Ed.; December, 2005, 1:40,000).
[14] Concur
[15] Concur
[16] Concur with clarification. The multibeam data positions a shoaler 2.7 fathom sounding in the vicinity. This depth is to be charted as a submerged rock within the extents of a surrounding new foul area.
[17] Concur. Chart 5 fathom sounding as depicted in the HCell.
[18] Concur
[19] Concur
[20] Concur
[21] The DtoN has been applied to the charts and retained in the HCell
[22] Filed with Hydrographic Records
[23] Filed with Hydrographic Records
[24] Concur, unless otherwise noted in the attached Features Report
[25] Concur
[26] 13 bottom samples from the field were applied to the HCell. 18 bottom samples were retained from the chart.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NOAA Marine and Aviation Operations
NOAA Ship FAIRWEATHER S-220
1010 Stedman Street
Ketchikan, AK 99901

November 8, 2005

MEMORANDUM FOR: CDR Don Haines, NOAA
Chief, Pacific Hydrographic Branch

FROM: CAPT John E. Lowell, Jr, NOAA
Commanding Officer

TITLE: Approval of Hydrographic Survey H11363, OPR-O167-FA

As Chief of Party, I have ensured that standard field surveying and processing procedures were adhered to during acquisition and processing of hydrographic survey H11363 in accordance with the Hydrographic Manual, Fourth Edition; Hydrographic Survey Guidelines; Field Procedures Manual, March 2005 Version 1.1; and the NOS Hydrographic Surveys Specifications and Deliverables, as updated for March, 2003. Additional guidance was provided by applicable Hydrographic Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required. All data and reports are respectfully submitted to N/CS34, Pacific Hydrographic Branch.

I acknowledge that all of the information contained in this report is complete and accurate to the best of my knowledge.

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

ST Jennifer A. Keene
Survey Manager

for LT Mark A. Wetzler
Field Operations Officer

CST Lynnette V. Morgan
Chief Survey Technician

Attachment

H11363 Features Report

Registry Number: H11363

State: Alaska

Locality: Cape Decision

Sub-locality: Southern Portion of Spanish Islands

Project Number: OPR-O167-FA

Survey Dates: 4/23/2005 - 5/30/2005

Items for survey H11363 associated with a detached or generic position that needed further discussion were flagged Report in Pydro. Investigation methods and recommendations were provided in the Remarks and Recommendations tabs.

Charts Affected

Number	Version	Date	Scale
17402	10th Ed.	08/01/2002	1:40000
17320	16th Ed.	12/01/2003	1:217828
17360	33rd Ed.	05/01/2003	1:217828
17400	16th Ed.	06/02/2001	1:229376
16016	20th Ed.	11/01/2003	1:969756
531	22nd Ed.	03/01/2004	1:2100000
500	8th Ed.	06/01/2003	1:3500000
530	30th Ed.	03/23/2002	1:4860700
50	6th Ed.	06/01/2003	1:10000000

Features

Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude
11151	Sounding	0.23 m	55° 58' 24.265" N	134° 07' 35.119" W
11152	Sounding	1.40 m	55° 58' 03.528" N	134° 07' 36.914" W
11155	Sounding	-1.30 m	55° 56' 11.289" N	134° 09' 22.555" W
11156	Sounding	0.12 m	55° 56' 01.905" N	134° 09' 21.438" W
11282	Sounding	-2.74 m	55° 55' 17.245" N	134° 07' 32.969" W
36	GP	5.55 m	55° 57' 43.820" N	134° 07' 44.900" W
37	GP	11.58 m	55° 58' 06.670" N	134° 07' 35.330" W

72 Ldr Investigation	GP	[None]	55° 55' 11.248" N	134° 08' 41.865" W
66 Ldr Investigation	GP	[None]	55° 56' 37.584" N	134° 08' 36.662" W
48	GP	[None]	55° 58' 19.050" N	134° 06' 33.681" W
49	GP	[None]	55° 58' 16.361" N	134° 06' 29.499" W
50	GP	[None]	55° 58' 10.286" N	134° 06' 40.852" W
51	GP	[None]	55° 57' 50.370" N	134° 06' 20.422" W
52	GP	[None]	55° 57' 51.655" N	134° 06' 25.048" W
53	GP	[None]	55° 58' 09.515" N	134° 07' 34.047" W
56	GP	[None]	55° 58' 04.504" N	134° 07' 33.276" W
58	GP	[None]	55° 57' 40.733" N	134° 07' 47.282" W
59	GP	[None]	55° 57' 36.108" N	134° 06' 55.115" W
60	GP	[None]	55° 57' 33.281" N	134° 07' 09.634" W
61	GP	[None]	55° 57' 31.354" N	134° 07' 11.690" W
62	GP	[None]	55° 57' 30.968" N	134° 07' 17.472" W
64	GP	[None]	55° 57' 39.282" N	134° 07' 19.245" W
65	GP	[None]	55° 57' 25.828" N	134° 07' 25.310" W
66	GP	[None]	55° 57' 20.303" N	134° 07' 15.031" W
67	GP	[None]	55° 57' 16.963" N	134° 07' 14.003" W
68	GP	[None]	55° 57' 21.460" N	134° 07' 47.282" W
69	GP	[None]	55° 57' 21.845" N	134° 07' 51.137" W
70	GP	[None]	55° 57' 18.633" N	134° 07' 49.338" W
71	GP	[None]	55° 57' 17.091" N	134° 08' 16.449" W
73	GP	[None]	55° 56' 52.421" N	134° 07' 29.871" W
75	GP	[None]	55° 56' 49.232" N	134° 07' 37.377" W
78	GP	[None]	55° 56' 21.489" N	134° 08' 36.332" W
79	GP	[None]	55° 56' 18.599" N	134° 08' 42.690" W
80	GP	[None]	55° 56' 21.489" N	134° 08' 52.978" W
81	GP	[None]	55° 56' 04.034" N	134° 08' 58.527" W
84	GP	[None]	55° 56' 24.681" N	134° 09' 08.501" W
85	GP	[None]	55° 56' 20.750" N	134° 09' 11.506" W
86	GP	[None]	55° 56' 16.704" N	134° 08' 28.273" W
87	GP	[None]	55° 56' 14.495" N	134° 08' 24.875" W
88	GP	[None]	55° 55' 45.334" N	134° 07' 23.994" W
89	GP	[None]	55° 56' 03.667" N	134° 07' 16.644" W
90	GP	[None]	55° 56' 06.856" N	134° 07' 08.230" W
93	GP	[None]	55° 55' 17.893" N	134° 07' 41.883" W

95	GP	[None]	55° 54' 33.677" N	134° 07' 18.266" W
120	GP	[None]	55° 55' 06.983" N	134° 10' 29.392" W
121	GP	[None]	55° 55' 20.089" N	134° 11' 34.923" W
123	GP	[None]	55° 54' 27.151" N	134° 12' 20.537" W
124	GP	[None]	55° 54' 28.821" N	134° 12' 18.610" W
125	GP	[None]	55° 54' 28.435" N	134° 12' 24.263" W
11153	Sounding	-8.39 m	55° 57' 14.474" N	134° 07' 44.484" W
35	GP	4.09 m	55° 57' 36.530" N	134° 07' 46.910" W
49	GP	5.54 m	55° 56' 47.060" N	134° 07' 02.680" W
60	GP	-0.17 m	55° 56' 11.510" N	134° 09' 18.800" W
61	GP	0.20 m	55° 56' 21.450" N	134° 09' 06.330" W
63	GP	1.50 m	55° 56' 28.100" N	134° 09' 00.890" W
64	GP	3.62 m	55° 56' 28.640" N	134° 08' 44.580" W
75	GP	3.06 m	55° 55' 16.600" N	134° 10' 14.510" W
78	GP	0.90 m	55° 55' 07.220" N	134° 11' 25.100" W
79	GP	1.65 m	55° 55' 30.330" N	134° 11' 38.760" W
80	GP	5.84 m	55° 55' 32.430" N	134° 11' 38.700" W
82	GP	2.38 m	55° 54' 47.740" N	134° 11' 22.330" W
83	GP	8.83 m	55° 54' 46.860" N	134° 12' 56.180" W
63	GP	[None]	55° 57' 33.795" N	134° 07' 18.628" W
74	GP	[None]	55° 56' 52.122" N	134° 08' 02.693" W
77	GP	[None]	55° 56' 29.696" N	134° 08' 35.985" W
91	GP	[None]	55° 55' 14.357" N	134° 08' 33.100" W
122	GP	[None]	55° 54' 37.430" N	134° 11' 59.079" W
126	GP	[None]	55° 54' 41.927" N	134° 12' 56.514" W
127	GP	[None]	55° 54' 33.832" N	134° 12' 55.872" W
11157	Sounding	8.35 m	55° 56' 01.571" N	134° 08' 07.749" W
11171	Sounding	6.68 m	55° 57' 22.535" N	134° 07' 14.235" W
11174	Sounding	-3.26 m	55° 54' 18.096" N	134° 07' 25.815" W
11172	Sounding	0.95 m	55° 57' 56.140" N	134° 06' 54.559" W
11281	Sounding	-2.87 m	55° 55' 09.889" N	134° 07' 16.398" W
263/37	Sounding	17.09 m	55° 57' 41.850" N	134° 05' 46.217" W
69/9	Sounding	8.80 m	55° 56' 11.912" N	134° 09' 55.668" W

1 - Charted Features

1.1) 11151

Survey Summary

Survey Position:	55° 58' 24.265" N, 134° 07' 35.119" W
Least Depth:	0.23 m
Timestamp:	2005-115.14:55:57.000 (04/25/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-115 / 1115_uwtroc_p.shp
Profile/Beam:	1/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

LDR INV 40 IS NEW RK EXT NEW FOUL

During shoreline verification, lidar investigaion 40 located at 55°58'26.535"N , 134°07'33.441"W (554547.98E , 6203534.86N) was found to be a new rock awash at low water. The rock is the seaward most extent of a new foul area, positioned with DP 11151.

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

0fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

0fm 1ft (531_1)

.2m (500_1, 50_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - LDR INV 40 IS NEW RK EXT NEW FOUL During shoreline verification, lidar investigaion 40 located at 55°58'26.535"N , 134°07'33.441"W (554547.98E , 6203534.86N) was found to be a new rock awash at low water. The rock is the seaward most extent of a new foul area, positioned with DP 11151. RECDAT - 20050425 VALSOU - 0.233 m WATLEV - 5:awash

Office Notes

Chart rock

1.2) 11152

Survey Summary

Survey Position:	55° 58' 03.528" N, 134° 07' 36.914" W
Least Depth:	1.40 m
Timestamp:	2005-115.15:15:45.000 (04/25/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-115 / 1115_uwtroc_p.shp
Profile/Beam:	2/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW POS CEF RK 54

During shoreline verification, CEF rock 54 located at 55°58'03.733"N , 134°07'37.902"W (554479.54E , 6202828.99N) was repositioned with DP 11152 to a location of 55°58'03.528"N , 134°07'36.914"W (554496.76E , 6202822.88N).

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

0fm 4ft (531_1)

1.4m (500_1, 50_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - NEW POS CEF RK 54 During shoreline verification, CEF rock 54 located at 55°58'03.733"N , 134°07'37.902"W (554479.54E , 6202828.99N) was repositioned with DP 11152 to a location of 55°58'03.528"N , 134°07'36.914"W (554496.76E , 6202822.88N). RECDAT - 20050425 VALSOU - 1.397 m WATLEV - 3:always under water/submerged

Office Notes

Chart rock

1.3) 11155

Survey Summary

Survey Position:	55° 56' 11.289" N, 134° 09' 22.555" W
Least Depth:	-1.30 m
Timestamp:	2005-115.17:38:32.000 (04/25/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-115 / 1115_uwtroc_p.shp
Profile/Beam:	4/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 82/LDR RK VRD

During shoreline verification, CEF rock 82 AT 55°56'10.507"N , 134°09'23.843"W (552685.42E , 6199305.87N) was found to be a lidar rock positioned with DP 11155 at 55°56'11.289"N , 134°09'22.555"W (552707.47E , 6199330.32N).

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

0fm 4ft (531_1)

-1.3m (500_1, 50_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 82/LDR RK VRD During shoreline verification, CEF rock 82 AT 55°56'10.507"N , 134°09'23.843"W (552685.42E , 6199305.87N) was found to be a lidar rock positioned with DP 11155 at 55°56'11.289"N , 134°09'22.555"W (552707.47E , 6199330.32N). RECDAT - 20050425 VALSOU - -1.305 m WATLEV - 4:covers and uncovers

Office Notes

Chart rock

Feature Images

Figure 1.3.1

1.4) 11156

Survey Summary

Survey Position:	55° 56' 01.905" N, 134° 09' 21.438" W
Least Depth:	0.12 m
Timestamp:	2005-115.17:46:49.000 (04/25/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-115 / 1115_uwtroc_p.shp
Profile/Beam:	5/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 83/LDR RK VRD

CEF rock 83 located at 55°56'00.681"N , 134°09'22.224"W (552717.21E , 6199002.46N) is the lidar rock verified with DP 11156 during shoreline verification to be at 55°56'01.905"N , 134°09'21.438"W (552730.40E , 6199040.46N).

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

0fm 0ft (531_1)

.1m (500_1, 50_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 83/LDR RK VRD CEF rock 83 located at 55°56'00.681"N , 134°09'22.224"W (552717.21E , 6199002.46N) is the lidar rock verified with DP 11156 during shoreline verification to be at 55°56'01.905"N , 134°09'21.438"W (552730.40E , 6199040.46N). RECDAT - 20050425 VALSOU - 0.120 m WATLEV - 5:awash

Office Notes

Chart rock

1.5) 11282

Survey Summary

Survey Position:	55° 55' 17.245" N, 134° 07' 32.969" W
Least Depth:	-2.74 m
Timestamp:	2005-128.06:46:23.000 (05/08/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-128 / 1128_$csymb_p.shp
Profile/Beam:	1/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 94 / LDR INVESTIGATION 70 HP CHD (17402) FOUL

During shoreline verification, CEF rock 94 and lidar investigation 70 were found to represent the high point of a charted (17402) foul area with rocks and kelp, positioned with DP 11282.

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ½fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

-1fm 3ft (531_1)

-2.8m (500_1, 50_1)

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - EXT CHD (17402) FOUL CEF RK 94 / LDR INVESTIGATION 70 EXT CHD (17402) FOUL During shoreline verification, CEF rock 94 and lidar investigation 70 were found to represent the extent of a charted (17402) area foul with rocks and kelp, positioned with DP 11282. RECDAT - 20050508

Office Notes

Chart rock

1.6) 36

Survey Summary

Survey Position:	55° 57' 43.820" N, 134° 07' 44.900" W
Least Depth:	5.55 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	6
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 57 IS LDR INVESTIGATION 36 NTD

CEF rock 57 located at 55°57'43.303"N , 134°07'46.896"W (554331.55E , 6202195.45N) was found to represent lidar investigation rock 36 located at 55°57'43.820"N , 134°07'44.900"W (554365.96E , 6202211.86N) and noted during shoreline verification.

LI36: Surveyed 3fa [3fa]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. Charted Rks not detected. White water 50 meters east

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 57 IS LDR INVESTIGATION 36 NTD CEF rock 57 located at 55°57'43.303"N , 134°07'46.896"W (554331.55E , 6202195.45N) was found to represent lidar investigation rock 36 located at 55°57'43.820"N , 134°07'44.900"W (554365.96E , 6202211.86N) and noted during shoreline verification. LI36: Surveyed 3fa [3fa]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. Charted Rks not detected. White water 50 meters east VALSOU - 5.55 m

Office Notes

Chart lidar rock

1.7) 37

Survey Summary

Survey Position:	55° 58' 06.670" N, 134° 07' 35.330" W
Least Depth:	11.58 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	7
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 55/LDR INVESTIGATION 37 IS EXT CHD (17402) FOUL

During shoreline verification, lidar investigation 37 at 55°58'06.670"N , 134°07'35.330"W (554522.99E , 6202920.35N) and CEF rock 55 at 55°58'06.817"N , 134°07'34.561"W (554536.26E , 6202925.06N) were found to represent the extent of a charted (17402) foul area.

LI37: Surveyed 6.3fa [6fa 3ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. Charted Rks not detected.

Hydrographer Recommendations

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 55/LDR INVESTIGATION 37 IS EXT CHD (17402) FOUL During shoreline verification, lidar investigation 37 at 55°58'06.670"N , 134°07'35.330"W (554522.99E , 6202920.35N) and CEF rock 55 at 55°58'06.817"N , 134°07'34.561"W (554536.26E , 6202925.06N) were found to represent the extent of a charted (17402) foul area. LI37: Surveyed 6.3fa [6fa 3ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. Charted Rks not detected. VALSOU - 11.58 m

Office Notes

Chart lidar position of rock

1.8) 72 Ldr Investigation

Survey Summary

Survey Position:	55° 55' 11.248" N, 134° 08' 41.865" W
Least Depth:	[None]
Timestamp:	2005-109.02:42:43 (04/19/2005)
GP Dataset:	ChartGPs - Digitized
GP No.:	1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

LDR INVESTIGATION 72 / CEF RK 92 NOT SEEN AT LW

The charted islet located at 55°55'11.248"N , 134°08'41.865"W (553436.47E , 6197482.88N) was not seen during shoreline verification.

LI72: Charted islet not detected. Digitized from Mapinfo file, because Lat/Lon not listed in xls spreadsheet.

Hydrographer Recommendations

The Hydrographer recommends removal of the charted (17402) islet.

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart rock, depth unknown

1.9) 66 Ldr Investigation

Survey Summary

Survey Position:	55° 56' 37.584" N, 134° 08' 36.662" W
Least Depth:	[None]
Timestamp:	2005-109.07:32:37 (04/19/2005)
GP Dataset:	ChartGPs - Digitized
GP No.:	2
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

LDR INVESTIGATION 66/CEF RK 76 IS SHOAL COVERED WITH 100% MB. USE DIGITAL DATA.

Lidar investigation 66 and CEF rock 76 represent a charted (17402) rock located at 55°56'37.326"N , 134°08'36.679"W (553493.55E , 6200145.01N). No rock was seen at low water, so the area was covered with multibeam and was found to be a shoal of 8.5m.

LI66: Charted Rk not detected. Digitized from Mapinfo file, because Lat/Lon not listed in xls spreadsheet.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - LDR INVESTIGATION 66/CEF RK 76 IS SHOAL COVERED WITH 100% MB. USE DIGITAL DATA. Lidar investigation 66 and CEF rock 76 represent a charted (17402) rock located at 55°56'37.326"N , 134°08'36.679"W (553493.55E , 6200145.01N). No rock was seen at low water, so the area was covered with multibeam and was found to be a shoal of 8.5m. LI66: Charted Rk not detected. Digitized from Mapinfo file, because Lat/Lon not listed in xls spreadsheet.

Office Notes

Remove charted rock

1.10) 48

Survey Summary

Survey Position:	55° 58' 19.050" N, 134° 06' 33.681" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 48 IS CFF BARE RK NTD

During shoreline verification, CEF rock 48 located at 55°58'19.050"N , 134°06'33.681"W (555586.90E , 6203316.71N) was found to represent a CFF rock located at 55°58'18.20"N , 134°06'30.85"W (555636.33E , 6203291.06N) that is the high point of a reef.

CEF48: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 48 IS CFF BARE RK NTD During shoreline verification, CEF rock 48 located at 55°58'19.050"N , 134°06'33.681"W (555586.90E , 6203316.71N) was found to represent a CFF rock located at 55°58'18.20"N , 134°06'30.85"W (555636.33E , 6203291.06N) that is the high point of a reef. CEF48: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Remove charted rock

1.11) 49

Survey Summary

Survey Position:	55° 58' 16.361" N, 134° 06' 29.499" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	2
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 49 IS LDR RK NTD

CEF rock 49 located at 55°58'16.361"N , 134°06'29.499"W (555660.49E , 6203234.52N) was found to represent a lidar rock located at 55°58'16.35"N , 134°06'30.12"W (555649.72E , 6203234.03N) noted during shoreline verification.

CEF49: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 49 IS LDR RK NTD CEF rock 49 located at 55°58'16.361"N , 134°06'29.499"W (555660.49E , 6203234.52N) was found to represent a lidar rock located at 55°58'16.35"N , 134°06'30.12"W (555649.72E , 6203234.03N) noted during shoreline verification. CEF49: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.12) 50

Survey Summary

Survey Position:	55° 58' 10.286" N, 134° 06' 40.852" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	3
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 50 IS LDR RK NTD

The CEF rock 50 located at 55°58'10.286"N , 134°06'40.852"W (555466.07E , 6203044.18N) was found to represent a lidar rock at 55°58'10.80"N , 134°06'39.37"W (555491.56E , 6203060.39N), noted during shoreline verification.

CEF50: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 50 IS LDR RK NTD The CEF rock 50 located at 55°58'10.286"N , 134°06'40.852"W (555466.07E , 6203044.18N) was found to represent a lidar rock at 55°58'10.80"N , 134°06'39.37"W (555491.56E , 6203060.39N), noted during shoreline verification. CEF50: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.13) 51

Survey Summary

Survey Position:	55° 57' 50.370" N, 134° 06' 20.422" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	4
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 51 NOT SEEN IN FIELD COVERED WITH 100% MB

CEF rock 51 located at 55°57'50.370"N , 134°06'20.422"W (555828.24E , 6202433.05N) was not seen at low water. The area was covered with 100% multibeam data and no rock or shoal was found.

CEF51: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

The Hydrographer recommends removal of the charted (17402) rock.

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 51 NOT SEEN IN FIELD COVERED WITH 100% MB CEF rock 51 located at 55°57'50.370"N , 134°06'20.422"W (555828.24E , 6202433.05N) was not seen at low water. The area was covered with 100% multibeam data and no rock or shoal was found. CEF51: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers SORDAT - 20030806

Office Notes

Remove charted rock

1.14) 52

Survey Summary

Survey Position:	55° 57' 51.655" N, 134° 06' 25.048" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	5
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 52 IS LDR RK NTD

During shoreline verification, CEF rock 52 located at 55°57'51.655"N , 134°06'25.048"W (555747.52E , 6202471.74N) was found to represent a lidar rock noted at 55°57'50.97"N , 134°06'26.05"W (555730.41E , 6202450.34N)

CEF52: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 52 IS LDR RK NTD During shoreline verification, CEF rock 52 located at 55°57'51.655"N , 134°06'25.048"W (555747.52E , 6202471.74N) was found to represent a lidar rock noted at 55°57'50.97"N , 134°06'26.05"W (555730.41E , 6202450.34N) CEF52: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.15) 53

Survey Summary

Survey Position:	55° 58' 09.515" N, 134° 07' 34.047" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	6
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 53 IS EXT CHD (17402) FOUL NTD

CEF rock 53 was found to be the extent of a charted (17402) foul area noted during shoreline verification.

CEF53: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 53 IS EXT CHD (17402) FOUL NTD CEF rock 53 was found to be the extent of a charted (17402) foul area noted during shoreline verification. CEF53: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers SORDAT - 20030806

Office Notes

Chart rock

1.16) 56

Survey Summary

Survey Position:	55° 58' 04.504" N, 134° 07' 33.276" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	9
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 56 IS LDR RK IN CHD (17402) FOUL AREA LDR RK IS HP LDG

During shoreline verification, CEF rock 56 located at 55°58'04.504"N , 134°07'33.276"W (554559.44E , 6202853.84N) was found to represent the lidar rock located at 55°58'06.72"N , 134°07'28.40"W (554643.12E , 6202923.41N), which was the high point of a ledge within a charted (17402) foul area.

CEF56: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 56 IS LDR RK IN CHD (17402) FOUL AREA During shoreline verification, CEF rock 56 located at 55°58'04.504"N , 134°07'33.276"W (554559.44E , 6202853.84N) was found to represent the lidar rock located at 55°58'06.72"N , 134°07'28.40"W (554643.12E , 6202923.41N), which was a high point within a charted (17402) foul area. CEF56: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart CEF rock, not enough information to relocate rock

1.17) 58

Survey Summary

Survey Position:	55° 57' 40.733" N, 134° 07' 47.282" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	11
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 58 IS LDR RK NTD

During shoreline verification, CEF rock 58 located at 55°57'40.733"N , 134°07'47.282"W (554325.86E , 6202115.92N) was found to represent the lidar rock located at 55°57'41.16"N , 134°07'44.50"W (554373.94E , 6202129.71N). The position of the CEF rock was covered with 100% multibeam data.

CEF58: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 58 IS LDR RK NTD During shoreline verification, CEF rock 58 located at 55°57'40.733"N , 134°07'47.282"W (554325.86E , 6202115.92N) was found to represent the lidar rock located at 55°57'41.16"N , 134°07'44.50"W (554373.94E , 6202129.71N). The position of the CEF rock was covered with 100% multibeam data. CEF58: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart rock at lidar position

1.18) 59

Survey Summary

Survey Position:	55° 57' 36.108" N, 134° 06' 55.115" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	12
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 59 IS LDR RK NTD

CEF rock 59 located at 55°57'36.108"N , 134°06'55.115"W (555232.32E , 6201984.40N) was found to represent a lidar rock at 55°57'35.84"N , 134°06'54.35"W (555245.69E , 6201976.29N) noted during shoreline verification.

CEF59: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 59 IS LDR RK NTD CEF rock 59 located at 55°57'36.108"N , 134°06'55.115"W (555232.32E , 6201984.40N) was found to represent a lidar rock at 55°57'35.84"N , 134°06'54.35"W (555245.69E , 6201976.29N) noted during shoreline verification. CEF59: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.19) 60

Survey Summary

Survey Position:	55° 57' 33.281" N, 134° 07' 09.634" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	13
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 60 IS LDR RK EXT LDG

During shoreline verification, CEF rock 60 located at 55°57'33.281"N , 134°07'09.634"W (554981.64E , 6201893.79N) was found to represent the extent of a ledge at the position of a lidar rock at 55°57'32.57"N , 134°07'10.74"W (554962.74E , 6201871.57N).

CEF60: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 60 IS LDR RK EXT LDG During shoreline verification, CEF rock 60 located at 55°57'33.281"N , 134°07'09.634"W (554981.64E , 6201893.79N) was found to represent the extent of a ledge at the position of a lidar rock at 55°57'32.57"N , 134°07'10.74"W (554962.74E , 6201871.57N). CEF60: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.20) 61

Survey Summary

Survey Position:	55° 57' 31.354" N, 134° 07' 11.690" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	14
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 61 IS EXT LDG

During shoreline verification, CEF rock 61 was found to represent the extent of a ledge.

CEF61: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 61 IS EXT LDG During shoreline verification, CEF rock 61 was found to represent the extent of a ledge. CEF61: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers
	SORDAT - 20030806

Office Notes

Chart rock

1.21) 62

Survey Summary

Survey Position:	55° 57' 30.968" N, 134° 07' 17.472" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	15
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 62 NTD

CEF rock 62 was noted during shoreline verification.

CEF62: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 62 NTD CEF rock 62 was noted during shoreline verification. CEF62: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers
	SORDAT - 20030806

Office Notes

Chart rock

1.22) 64

Survey Summary

Survey Position:	55° 57' 39.282" N, 134° 07' 19.245" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	17
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 64 IS EXT LW

During shoreline verification, CEF rock 64 was found to represent the extent of the low water. Multibeam data could not be acquired, but there was no obstruction point observed in the area.

CEF64: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare

Hydrographer Recommendations

The Hydrographer recommends removal of the charted (17402) islet.

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 64 IS EXT LW During shoreline verification, CEF rock 64 was found to represent the extent of the low water. Multibeam data could not be acquired, but there was no obstruction point observed in the area. CEF64: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare SORDAT - 20030806

Office Notes

Chart CEF rock

1.23) 65

Survey Summary

Survey Position:	55° 57' 25.828" N, 134° 07' 25.310" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	18
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 65 IS LDR RK EXT LDG

CEF rock 65 at 55°57'25.828"N , 134°07'25.310"W (554712.72E , 6201659.95N) was found to represent a lidar rock at 55°57'25.59"N , 134°07'24.96"W (554718.88E , 6201652.66N), which is the extent of a ledge noted during shoreline verification.

CEF65: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 65 IS LDR RK EXT LDG CEF rock 65 at 55°57'25.828"N , 134°07'25.310"W (554712.72E , 6201659.95N) was found to represent a lidar rock at 55°57'25.59"N , 134°07'24.96"W (554718.88E , 6201652.66N), which is the extent of a ledge noted during shoreline verification. CEF65: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.24) 66

Survey Summary

Survey Position:	55° 57' 20.303" N, 134° 07' 15.031" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	19
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 66 IS LDR RK NTD

CEF rock 65 located at 55°57'20.303"N , 134°07'15.031"W (554893.16E , 6201491.41N) was found to represent a lidar rock noted at 55°57'19.02"N , 134°07'13.98"W (554911.89E , 6201451.97N) during shoreline verification.

CEF66: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 66 IS LDR RK NTD CEF rock 65 located at 55°57'20.303"N , 134°07'15.031"W (554893.16E , 6201491.41N) was found to represent a lidar rock noted at 55°57'19.02"N , 134°07'13.98"W (554911.89E , 6201451.97N) during shoreline verification. CEF66: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.25) 67

Survey Summary

Survey Position:	55° 57' 16.963" N, 134° 07' 14.003" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	20
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 67 IS LDR RK NTD

CEF rock 67 located at 55°57'16.963"N , 134°07'14.003"W (554912.30E , 6201388.36N) was found to represent a lidar rock at 55°57'16.39"N , 134°07'12.89"W (554931.82E , 6201370.91N) noted during shoreline verification.

CEF67: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 67 IS LDR RK NTD CEF rock 67 located at 55°57'16.963"N , 134°07'14.003"W (554912.30E , 6201388.36N) was found to represent a lidar rock at 55°57'16.39"N , 134°07'12.89"W (554931.82E , 6201370.91N) noted during shoreline verification. CEF67: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.26) 68

Survey Summary

Survey Position:	55° 57' 21.460" N, 134° 07' 47.282" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	21
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 68 IS EXT LDG

During shoreline verification, CEF rock 68 at 55°57'21.460"N , 134°07'47.282"W (554333.36E , 6201520.08N) was found to represent the extent of the lidar ledge.

CEF68: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK IS EXT LDG During shoreline verification, CEF rock 68 at 55°57'21.460"N , 134°07'47.282"W (554333.36E , 6201520.08N) was found to represent the extent of the lidar ledge. CEF68: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart rock

1.27) 69

Survey Summary

Survey Position:	55° 57' 21.845" N, 134° 07' 51.137" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	22
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 69 IS LDR RK NTD

CEF rock 69 located at 55°57'21.845"N , 134°07'51.137"W (554266.36E , 6201531.16N) was found to represent a lidar rock located at 55°57'22.03"N , 134°07'49.65"W (554292.07E , 6201537.20N) that was noted during shoreline verification.

CEF69: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK IS LDR RK NTD CEF rock 69 located at 55°57'21.845"N , 134°07'51.137"W (554266.36E , 6201531.16N) was found to represent a lidar rock located at 55°57'22.03"N , 134°07'49.65"W (554292.07E , 6201537.20N) that was noted during shoreline verification. CEF69: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.28) 70

Survey Summary

Survey Position:	55° 57' 18.633" N, 134° 07' 49.338" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	23
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 70 IS LDR RK NTD

CEF rock 70 located at 55°57'18.633"N , 134°07'49.338"W (554298.80E , 6201432.25N) was found to represent a lidar rock located at 55°57'18.98"N , 134°07'47.63"W (554328.29E , 6201443.35N), noted during shoreline verification.

CEF70: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK IS LDR RK NTD CEF rock 70 located at 55°57'18.633"N , 134°07'49.338"W (554298.80E , 6201432.25N) was found to represent a lidar rock located at 55°57'18.98"N , 134°07'47.63"W (554328.29E , 6201443.35N), noted during shoreline verification. CEF70: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.29) 71

Survey Summary

Survey Position:	55° 57' 17.091" N, 134° 08' 16.449" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	24
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 71 IS LDR RK NTD

CEF rock 71 at 55°57'17.091"N , 134°08'16.449"W (553829.18E , 6201378.69N) was found to represent the lidar rock located at 55°57'17.45"N , 134°08'14.24"W (553867.36E , 6201390.27N) that was noted during shoreline verification.

CEF71: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 71 IS LDR RK NTD CEF rock 71 at 55°57'17.091"N , 134°08'16.449"W (553829.18E , 6201378.69N) was found to represent the lidar rock located at 55°57'17.45"N , 134°08'14.24"W (553867.36E , 6201390.27N) that was noted during shoreline verification. CEF71: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.30) 73

Survey Summary

Survey Position:	55° 56' 52.421" N, 134° 07' 29.871" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	25
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 73 IS LDR RK NTD

CEF rock 73 located at 55°56'52.421"N , 134°07'29.871"W (554646.68E , 6200626.18N) was found to represent a lidar rock at 55°56'52.80"N , 134°07'29.66"W (554650.20E , 6200637.95N) noted during shoreline verification.

CEF73: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 73 IS LDR RK NTD CEF rock 73 located at 55°56'52.421"N , 134°07'29.871"W (554646.68E , 6200626.18N) was found to represent a lidar rock at 55°56'52.80"N , 134°07'29.66"W (554650.20E , 6200637.95N) noted during shoreline verification. CEF73: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.31) 75

Survey Summary

Survey Position:	55° 56' 49.232" N, 134° 07' 37.377" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	27
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 75 IS LDR RK NTD

CEF rock 75 located at 55°56'49.232"N , 134°07'37.377"W (554517.71E , 6200525.95N) was found to represent a lidar rock at 55°56'49.15"N , 134°07'36.24"W (554537.48E , 6200523.67N) noted during shoreline verification.

CEF75: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 75 IS LDR RK NTD CEF rock 75 located at 55°56'49.232"N , 134°07'37.377"W (554517.71E , 6200525.95N) was found to represent a lidar rock at 55°56'49.15"N , 134°07'36.24"W (554537.48E , 6200523.67N) noted during shoreline verification. CEF75: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.32) 78

Survey Summary

Survey Position:	55° 56' 21.489" N, 134° 08' 36.332" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	30
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 78 IS LDR RK NTD

CEF rock 78 at 55°56'21.489"N , 134°08'36.332"W (553505.63E , 6199655.50N) was found to represent a lidar rock located at 55°56'21.74"N , 134°08'34.88"W (553530.73E , 6199663.58N) noted during shoreline verification.

CEF78: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 78 IS LDR RK NTD CEF rock 78 at 55°56'21.489"N , 134°08'36.332"W (553505.63E , 6199655.50N) was found to represent a lidar rock located at 55°56'21.74"N , 134°08'34.88"W (553530.73E , 6199663.58N) noted during shoreline verification. CEF78: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.33) 79

Survey Summary

Survey Position:	55° 56' 18.599" N, 134° 08' 42.690" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	31
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 79 IS LDR RK NTD

During shoreline verification, CEF rock 79 at 55°56'18.599"N , 134°08'42.690"W (553396.42E , 6199564.79N) was found to represent a lidar rock located at 55°56'19.62"N , 134°08'41.45"W (553417.55E , 6199596.63N).

CEF79: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 79 IS LDR RK NTD During shoreline verification, CEF rock 79 at 55°56'18.599"N , 134°08'42.690"W (553396.42E , 6199564.79N) was found to represent a lidar rock located at 55°56'19.62"N , 134°08'41.45"W (553417.55E , 6199596.63N). CEF79: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.34) 80

Survey Summary

Survey Position:	55° 56' 21.489" N, 134° 08' 52.978" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	32
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 80/LDR RK IS HP REEF

During shoreline verification, CEF rock 80 located at 55°56'21.489"N , 134°08'52.978"W (553216.81E , 6199651.93N) was found to represent the high point of a reef, which was depicted by a lidar rock located at 55°56'21.63"N , 134°08'52.73"W (553221.06E , 6199656.35N).

CEF80: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 80/LDR RK IS HP REEF During shoreline verification, CEF rock 80 located at 55°56'21.489"N , 134°08'52.978"W (553216.81E , 6199651.93N) was found to represent the high point of a reef, which was depicted by a lidar rock located at 55°56'21.63"N , 134°08'52.73"W (553221.06E , 6199656.35N). CEF80: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart rock separate from reef

1.35) 81

Survey Summary

Survey Position:	55° 56' 04.034" N, 134° 08' 58.527" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	33
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 81 IS EXT REEF

During shoreline verification, CEF rock 81 was found to be the extent of a reef.

CEF81: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 81 IS EXT REEF During shoreline verification, CEF rock 81 was found to be the extent of a reef. CEF81: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers
	SORDAT - 20030806

Office Notes

Chart rock as high point of reef

1.36) 84

Survey Summary

Survey Position:	55° 56' 24.681" N, 134° 09' 08.501" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	36
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 84 IS EXT LDG

During shoreline verification, CEF rock 84 was found to represent the extent of a ledge, as depicted by the lidar low water line.

CEF84: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 84 IS EXT LDG During shoreline verification, CEF rock 84 was found to represent the extent of a ledge, as depicted by the lidar low water line. CEF84: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare
	SORDAT - 20030806

Office Notes

Field does not address whether the rock was an islet. Retain charted islet.

1.37) 85

Survey Summary

Survey Position:	55° 56' 20.750" N, 134° 09' 11.506" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	37
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 85/CFF RK IS HP LDG

During shoreline verification, CEF rock 85 at 55°56'20.750"N , 134°09'11.506"W (552895.61E , 6199625.15N) was found to represent a CFF rock located at 55°56'21.58"N , 134°09'09.86"W (552923.97E , 6199641.88N), which is the high point of a ledge.

CEF85: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 85/CFF RK IS HP LDG During shoreline verification, CEF rock 85 at 55°56'20.750"N , 134°09'11.506"W (552895.61E , 6199625.15N) was found to represent a CFF rock located at 55°56'21.58"N , 134°09'09.86"W (552923.97E , 6199641.88N), which is the high point of a ledge. CEF85: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare SORDAT - 20030806

Office Notes

Charted islets were not addressed by the field. Not enough information to disprove, retain as charted.

1.38) 86

Survey Summary

Survey Position:	55° 56' 16.704" N, 134° 08' 28.273" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	38
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 86 NOT SEEN AT LW

The CEF rock 86 at 55°56'16.704"N , 134°08'28.273"W (553647.30E , 6199509.32N), representing a charted (17402) islet, was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell, but no iselts were seen in the area.

CEF86: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare

Hydrographer Recommendations

The Hydrographer recommends removal of the charted (17402) islet.

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 86 NOT SEEN AT LW The CEF rock 86 at 55°56'16.704"N , 134°08'28.273"W (553647.30E , 6199509.32N), representing a charted (17402) islet, was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell, but no iselts were seen in the area. CEF86: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare SORDAT - 20030806

Office Notes

Replace charted islet with CEF rock

1.39) 87

Survey Summary

Survey Position:	55° 56' 14.495" N, 134° 08' 24.875" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	39
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 87 NOT SEEN AT LW

The CEF rock 87, representing a charted (17402) islet, was not seen during shoreline verification. The area could not be covered with multibeam data due to swell, but no islets were seen in the area.

CEF87: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare

Hydrographer Recommendations

The Hydrographer recommends removal of the charted (17402) islet.

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 87 NOT SEEN AT LW The CEF rock 87, representing a charted (17402) islet, was not seen during shoreline verification. The area could not be covered with multibeam data due to swell, but no islets were seen in the area. CEF87: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare SORDAT - 20030806

Office Notes

Replace charted islet with CEF rock

1.40) 88

Survey Summary

Survey Position:	55° 55' 45.334" N, 134° 07' 23.994" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	40
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 88 IS LDR RK EXT LDG

During shoreline verification, CEF rock 88 located at 55°55'45.334"N , 134°07'23.994"W (554774.91E , 6198553.53N) was found to represent a lidar rock which is the extent of a ledge located at 55°55'45.97"N , 134°07'25.47"W (554930.77E , 6198575.17N).

CEF88: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 88 IS LDR RK EXT LDG During shoreline verification, CEF rock 88 located at 55°55'45.334"N , 134°07'23.994"W (554774.91E , 6198553.53N) was found to represent a lidar rock which is the extent of a ledge located at 55°55'45.97"N , 134°07'25.47"W (554930.77E , 6198575.17N). CEF88: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.41) 89

Survey Summary

Survey Position:	55° 56' 03.667" N, 134° 07' 16.644" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	41
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 89 IS LDR RK HP REEF

During shoreline verification, CEF rock 89 located at 55°56'03.667"N , 134°07'16.644"W (554895.29E , 6199121.90N) was found to represent a lidar rock that is the high point of a reef located at 55°56'03.90"N , 134°07'15.03"W (554923.20E , 6199129.46N).

CEF89: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 89 IS LDR RK HP REEF During shoreline verification, CEF rock 89 located at 55°56'03.667"N , 134°07'16.644"W (554895.29E , 6199121.90N) was found to represent a lidar rock that is the high point of a reef located at 55°56'03.90"N , 134°07'15.03"W (554923.20E , 6199129.46N). CEF89: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock as high point of reef

1.42) 90

Survey Summary

Survey Position:	55° 56' 06.856" N, 134° 07' 08.230" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	42
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 90 IS LDR RK NTD

CEF rock 90 located at 55°56'06.856"N , 134°07'08.230"W (555040.04E , 6199222.33N) was found to represent a lidar rock at 55°56'07.73"N , 134°07'08.21"W (555040.04E , 6199249.36N) noted during shoreline verification.

CEF90: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 90 IS LDR RK NTD CEF rock 90 located at 55°56'06.856"N , 134°07'08.230"W (555040.04E , 6199222.33N) was found to represent a lidar rock at 55°56'07.73"N , 134°07'08.21"W (555040.04E , 6199249.36N) noted during shoreline verification. CEF90: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.43) 93

Survey Summary

Survey Position:	55° 55' 17.893" N, 134° 07' 41.883" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	45
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 93 IS LDR RK NTD

CEF rock 93 located at 55°55'17.893"N , 134°07'41.883"W (554475.15E , 6197701.29N) was found to represent a lidar rock at 55°55'18.91"N , 134°07'41.18"W (554486.95E , 6197732.88N), noted during shoreline verification.

CEF93: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 93 IS LDR RK NTD CEF rock 93 located at 55°55'17.893"N , 134°07'41.883"W (554475.15E , 6197701.29N) was found to represent a lidar rock at 55°55'18.91"N , 134°07'41.18"W (554486.95E , 6197732.88N), noted during shoreline verification. CEF93: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.44) 95

Survey Summary

Survey Position:	55° 54' 33.677" N, 134° 07' 18.266" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	47
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 95 IS EXT LDG

During shoreline verification, CEF rock 95 was found to represent the extent of a ledge connected to shore as depicted by the lidar data.

CEF95: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 95 IS EXT LDG During shoreline verification, CEF rock 95 was found to represent the extent of a ledge connected to shore as depicted by the lidar data. CEF95: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare

Office Notes

Field did not address whether the rock was an islet. Retain charted islet.

1.45) 120

Survey Summary

Survey Position:	55° 55' 06.983" N, 134° 10' 29.392" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	48
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 120 IS LDR RK NTD

The CEF rock located at 55°55'06.983"N , 134°10'29.392"W (551571.42E , 6197328.34N) was found to represent a lidar rock at 55°55'06.47"N , 134°10'30.11"W (551559.15E , 6197312.34N), noted during shoreline verification.

CEF120: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 120 IS LDR RK NTD The CEF rock located at 55°55'06.983"N , 134°10'29.392"W (551571.42E , 6197328.34N) was found to represent a lidar rock at 55°55'06.47"N , 134°10'30.11"W (551559.15E , 6197312.34N), noted during shoreline verification. CEF120: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.46) 121

Survey Summary

Survey Position:	55° 55' 20.089" N, 134° 11' 34.923" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	49
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 121 IS LDR RK HP LDG

During shoreline verification, CEF rock 121 located at 55°55'20.089"N , 134°11'34.923"W (550429.08E , 6197720.08N) was found to represent a lidar rock which is the high point of a ledge, located at 55°55'19.53"N , 134°11'38.10"W (550374.13E , 6197702.17N).

CEF121: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CEF RK 121 IS LDR RK HP LDG During shoreline verification, CEF rock 121 located at 55°55'20.089"N , 134°11'34.923"W (550429.08E , 6197720.08N) was found to represent a lidar rock which is the high point of a ledge, located at 55°55'19.53"N , 134°11'38.10"W (550374.13E , 6197702.17N). CEF121: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Office Notes

Chart lidar rock

1.47) 123

Survey Summary

Survey Position:	55° 54' 27.151" N, 134° 12' 20.537" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	51
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 123 IS HP CFF LDG NTD

CEF rock 123 at 55°54'27.151"N , 134°12'20.537"W (549656.07E , 6196074.37N) was found to represent a high point of the CFF ldg noted during shoreline verification.

CEF123: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 123 IS HP CFF LDG NTD CEF rock 123 at 55°54'27.151"N , 134°12'20.537"W (549656.07E , 6196074.37N) was found to represent a high point of the CFF ldg noted during shoreline verification. CEF123: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers
	SORDAT - 20030806

Office Notes

Chart as hp of ledge

1.48) 124

Survey Summary

Survey Position:	55° 54' 28.821" N, 134° 12' 18.610" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	52
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 124 IS HP CFF LDG NTD

CEF rock 124 at 55°54'28.821"N , 134°12'18.610"W (549688.95E , 6196126.39N) was found to represent a high point of the CFF ldg noted during shoreline verification.

CEF124: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 124 IS HP CFF LDG NTD CEF rock 124 at 55°54'28.821"N , 134°12'18.610"W (549688.95E , 6196126.39N) was found to represent a high point of the CFF ldg noted during shoreline verification. CEF124: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers SORDAT - 20030806

Office Notes

Chart rock

1.49) 125

Survey Summary

Survey Position:	55° 54' 28.435" N, 134° 12' 24.263" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	53
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 125 IS HP CFF LDG NTD

CEF rock 125 at 55°54'28.435"N , 134°12'24.263"W (549590.91E , 6196113.34N) was found to represent the high point of the CFF ldg noted during shoreline verification.

CEF125: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 125 IS HP CFF LDG NTD CEF rock 125 at 55°54'28.435"N , 134°12'24.263"W (549590.91E , 6196113.34N) was found to represent the high point of the CFF ldg noted during shoreline verification. CEF125: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers
	SORDAT - 20030806

Office Notes

Chart rock

1.50) 11153

Survey Summary

Survey Position:	55° 57' 14.474" N, 134° 07' 44.484" W
Least Depth:	-8.39 m
Timestamp:	2005-115.15:53:33.000 (04/25/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-115 / 1115_$csymb_p.shp
Profile/Beam:	1/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

LDR ISLET IS CFF BARE RK IS HP REEF CHD (17402) RKS AND ISLETS ARE REEF

During shoreline verification, the lidar islet and CFF rock located at 55°57'14.474"N , 134°07'44.484"W (554384.61E , 6201304.73N) were found to represent the high point of a reef. Use DP 11153 for height.

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-4 ½fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

-4fm 3ft (531_1)

-8.4m (500_1, 50_1)

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - LDR ISLET IS CFF BARE RK IS HP REEF CHD (17402) RKS AND ISLETS ARE REEF During shoreline verification, the lidar islet and CFF rock located at 55°57'14.474"N , 134°07'44.484"W (554384.61E , 6201304.73N) were found to represent the high point of a reef. Use DP 11153 for height. RECDAT - 20050425

Office Notes

Chart lidar islet with surrounding ledge

Feature Images

Figure 1.50.1

2 - New Features

2.1) 35

Survey Summary

Survey Position:	55° 57' 36.530" N, 134° 07' 46.910" W
Least Depth:	4.09 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	5
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Possible 2.2fa [2fa 1ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

LDR INVESTIGATION 35 NOT SEEN AT LW UNABLE TO COVER WITH MB

Lidar investigation 35 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Possible 2.2fa [2fa 1ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. LDR INVESTIGATION 35 NOT SEEN AT LW UNABLE TO COVER WITH MB Lidar investigation 35 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell. VALSOU - 4.09 m

Office Notes

Chart rock

2.2) 49

Survey Summary

Survey Position:	55° 56' 47.060" N, 134° 07' 02.680" W
Least Depth:	5.54 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	11
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Surveyed 3fa [3fa]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. Charted 1 1/2 fathoms not found.

LDR INVESTIGATION 49 NOT SEEN AT LW UNABLE TO COVER WITH MB

Lidar investigation 49 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Surveyed 3fa [3fa]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. Charted 1 1/2 fathoms not found. LDR INVESTIGATION 49 NOT SEEN AT LW UNABLE TO COVER WITH MB Lidar investigation 49 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell. VALSOU - 5.54 m

Office Notes

Retain charted one and a half fathom sounding

2.3) 60

Survey Summary

Survey Position:	55° 56' 11.510" N, 134° 09' 18.800" W
Least Depth:	-0.17 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	15
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Possible (0.1fa) [0fa 1ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

LDR INVESTIGATION 60 NOT SEEN AT LW UNABLE TO COVER WITH MB

Lidar investigation 60 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Possible (0.1fa) [0fa 1ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. LDR INVESTIGATION 60 NOT SEEN AT LW UNABLE TO COVER WITH MB Lidar investigation 60 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell. VALSOU - -0.17 m

Office Notes

Chart rock

2.4) 61

Survey Summary

Survey Position:	55° 56' 21.450" N, 134° 09' 06.330" W
Least Depth:	0.20 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	16
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

LDR INVESTIGATION 61 IS LDR RK IS EXT LDG

During shoreline verification, lidar investigation 61 was found to represent the extent of a ledge located at 55°56'21.470"N , 134°09'06.330"W (552985.15E , 6199648.50N).

LI61: Surveyed 0.2fa [0fa 1ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. Note (19)* 50 meters NE.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart as extent of ledge

2.5) 63

Survey Summary

Survey Position:	55° 56' 28.100" N, 134° 09' 00.890" W
Least Depth:	1.50 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	17
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Possible (0.8fa) [0fa 5ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of white water and sparse data due to kelp.

LDR INVESTIGATION 63 NOT SEEN AT LW UNABLE TO COVER WITH MB

Lidar investigation 63 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell and kelp.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Possible (0.8fa) [0fa 5ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of white water and sparse data due to kelp. LDR INVESTIGATION 63 NOT SEEN AT LW UNABLE TO COVER WITH MB Lidar investigation 63 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to swell and kelp. VALSOU - 1.5 m

Office Notes

Chart rock

2.6) 64

Survey Summary

Survey Position:	55° 56' 28.640" N, 134° 08' 44.580" W
Least Depth:	3.62 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	18
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Surveyed 2fa [2fa]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

LDR INVESTIGATION 64 NOT SEEN AT LW UNABLE TO COVER WITH MB

Lidar investigation 64 was not seen at low water during shoreline verification. The area could not be covered with multibeam data.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Surveyed 2fa [2fa]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. LDR INVESTIGATION 64 NOT SEEN AT LW UNABLE TO COVER WITH MB Lidar investigation 64 was not seen at low water during shoreline verification. The area could not be covered with multibeam data. VALSOU - 3.62 m

Office Notes

Chart rock

2.7) 75

Survey Summary

Survey Position:	55° 55' 16.600" N, 134° 10' 14.510" W
Least Depth:	3.06 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	23
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Surveyed 1.6fa [1fa 4ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

LDR INVESTIGATION 75 NOT SEEN AT LW UNABLE TO COVER WITH MB

Lidar investigation 75 was not seen during shoreline verification. It is possibly a submerged rock in a charted (17402) foul area. The area could not be covered with multibeam data.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Surveyed 1.6fa [1fa 4ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. LDR INVESTIGATION 75 NOT SEEN AT LW UNABLE TO COVER WITH MB Lidar investigation 75 was not seen during shoreline verification. It is possibly a submerged rock in a charted (17402) foul area. The area could not be covered with multibeam data. VALSOU - 3.06 m

Office Notes

Chart submerged rock

2.8) 78

Survey Summary

Survey Position:	55° 55' 07.220" N, 134° 11' 25.100" W
Least Depth:	0.90 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	24
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Surveyed 0.5fa [0fa 3ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

LDR INVESTIGATION 78 NOT SEEN AT LW UNABLE TO COVER WITH MB

Lidar investigation 78 was not seen at low water during shoreline verification. It lies within a foul area and could not be verified in the field.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Surveyed 0.5fa [0fa 3ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. LDR INVESTIGATION 78 NOT SEEN AT LW UNABLE TO COVER WITH MB Lidar investigation 78 was not seen at low water during shoreline verification. It lies within a foul area and could not be verified in the field. VALSOU - 0.9 m

Office Notes

Do not chart lidar rock, retain charted 1/2 fathom sounding

2.9) 79

Survey Summary

Survey Position:	55° 55' 30.330" N, 134° 11' 38.760" W
Least Depth:	1.65 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	25
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Surveyed 0.9fa [0fa 5ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

LDR INVESTIGATION 79 NOT SEEN AT LW UNABLE TO COVER WITH MB DUE TO FOUL AREA

Lidar investigation 79 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to foul.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Surveyed 0.9fa [0fa 5ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. LDR INVESTIGATION 79 NOT SEEN AT LW UNABLE TO COVER WITH MB DUE TO FOUL AREA Lidar investigation 79 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to foul. VALSOU - 1.65 m

Office Notes

Do not chart lidar rock, retain 3/4 fathom submerged rock

2.10) 80

Survey Summary

Survey Position:	55° 55' 32.430" N, 134° 11' 38.700" W
Least Depth:	5.84 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	26
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Surveyed 3.2fa [3fa 1ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

LDR INVESTIGATION 80 NOT SEEN AT LW UNABLE TO COVER WITH MB DUE TO FOUL AREA

Lidar investigation 80 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to foul.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Surveyed 3.2fa [3fa 1ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. LDR INVESTIGATION 80 NOT SEEN AT LW UNABLE TO COVER WITH MB DUE TO FOUL AREA Lidar investigation 80 was not seen at low water during shoreline verification. The area could not be covered with multibeam data due to foul. VALSOU - 5.84 m

Office Notes

Chart rock

2.11) 82

Survey Summary

Survey Position:	55° 54' 47.740" N, 134° 11' 22.330" W
Least Depth:	2.38 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	28
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Surveyed 1.3fa [1fa 2ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

LDR INVESTIGATION 82 NOT SEEN AT LW UNABLE TO COVER WITH MB

Lidar investigation 82 was not seen at low water during shoreline verification. It lies within a foul area and could not be verified in the field.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Surveyed 1.3fa [1fa 2ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. LDR INVESTIGATION 82 NOT SEEN AT LW UNABLE TO COVER WITH MB Lidar investigation 82 was not seen at low water during shoreline verification. It lies within a foul area and could not be verified in the field. VALSOU - 2.38 m

Office Notes

Chart rock

2.12) 83

Survey Summary

Survey Position:	55° 54' 46.860" N, 134° 12' 56.180" W
Least Depth:	8.83 m
Timestamp:	1990-001.11:60:00.000 (01/01/1990)
GP Dataset:	ChartGPs - Lidar_Item_Investigations_B.xls
GP No.:	29
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

LDR INVESTIGATION 83 IS SHOAL COVERED WITH 100% MB. USE DIGITAL DEPTHS.

The rock represented by lidar investigation 83 was entered as a dangerous submerged rock in NM 39/04.

LI83: Surveyed 4.8fa [4fa 5ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - LDR INVESTIGATION 83 IS SHOAL COVERED WITH 100% MB. USE DIGITAL DEPTHS. The rock represented by lidar investigation 83 was entered as a dangerous submerged rock in NM 39/04. LI83: Surveyed 4.8fa [4fa 5ft]Rk. Surveyed at 4x4 meter laser spot spacing with 200% coverage. Area of sparse data due to kelp. VALSOU - 8.83 m

Office Notes

Chart submerged rock within foul area

2.13) 63

Survey Summary

Survey Position:	55° 57' 33.795" N, 134° 07' 18.628" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	16
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 63 NTD

The existence of CEF rock 63 was noted during shoreline verification.

CEF63: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 63 NTD The existence of CEF rock 63 was noted during shoreline verification. CEF63: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers
	SORDAT - 20030806

Office Notes

Chart rock

2.14) 74

Survey Summary

Survey Position:	55° 56' 52.122" N, 134° 08' 02.693" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	26
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 74 NTD

The existence of CEF rock 74 was confirmed in the field during shoreline verification.

CEF74: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 74 NTD The existence of CEF rock 74 was confirmed in the field during shoreline verification. CEF74: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers SORDAT - 20030806

Office Notes

Chart rock

2.15) 77

Survey Summary

Survey Position:	55° 56' 29.696" N, 134° 08' 35.985" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	29
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 77 NTD

The existence of CEF rock 77 was noted during shoreline verification.

CEF77: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 77 NTD The existence of CEF rock 77 was noted during shoreline verification. CEF77: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers
	SORDAT - 20030806

Office Notes

Chart rock

2.16) 91

Survey Summary

Survey Position:	55° 55' 14.357" N, 134° 08' 33.100" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	43
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare

CEF RK 91 NOT SEEN AT LW UNABLE TO COVER WITH MB DUE TO FOUL AREA

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Bare CEF RK 91 NOT SEEN AT LW UNABLE TO COVER WITH MB DUE TO FOUL AREA SORDAT - 20030806

Office Notes

Not enough information to disprove 100%. Chart islet as rock.

2.17) 122

Survey Summary

Survey Position:	55° 54' 37.430" N, 134° 11' 59.079" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	50
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 122 IS EXT REEF

During shoreline verification, CEF rock 122 located at 55°54'37.430"N , 134°11'59.079"W (550025.02E , 6196396.44N) was found to represent the extent of a charted (17402) obstruction, which is a reef.

CEF122: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

Retain as charted.

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 122 IS EXT REEF During shoreline verification, CEF rock 122 located at 55°54'37.430"N , 134°11'59.079"W (550025.02E , 6196396.44N) was found to represent the extent of a charted (17402) obstruction, which is a reef. CEF122: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers SORDAT - 20030806

Office Notes

Chart rock

2.18) 126

Survey Summary

Survey Position:	55° 54' 41.927" N, 134° 12' 56.514" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	54
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CEF RK 126 NTD

CEF rock 126 was noted during shoreline verification.

CEF126: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - CEF RK 126 NTD CEF rock 126 was noted during shoreline verification. CEF126: Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers SORDAT - 20030806

Office Notes

Chart rock

2.19) 127

Survey Summary

Survey Position:	55° 54' 33.832" N, 134° 12' 55.872" W
Least Depth:	[None]
Timestamp:	2003-218.00:00:00.000 (08/06/2003)
GP Dataset:	ChartGPs - H11363 AK0202_CEF_new.xls
GP No.:	55
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers

CEF RK 127 NOT SEEN AT LW UNABLE TO VERIFIY IN FIELD

CEF rock 127 was not seen at low water. It is within an area foul with rocks and kelp and could not be verified in the field.

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - Existence Not Confirmed by imagery: OBSTRUCTION POINT Rock.Covers/Uncovers CEF RK 127 NOT SEEN AT LW UNABLE TO VERIFIY IN FIELD CEF rock 127 was not seen at low water. It is within an area foul with rocks and kelp and could not be verified in the field. SORDAT - 20030806

Office Notes

Chart rock

2.20) 11157

Survey Summary

Survey Position:	55° 56' 01.571" N, 134° 08' 07.749" W
Least Depth:	8.35 m
Timestamp:	2005-115.18:10:28.000 (04/25/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-115 / 1115_$csymb_p.shp
Profile/Beam:	2/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DSP

During shoreline verification, a 30x100m visual search was conducted, with a water visibility of 3m. The CFF rock at 55°56'01.571"N , 134°08'07.749"W (554009.27E , 6199045.94N)was not seen and disproved with DP 11157. The area was not accessible to be covered with multibeam data.

Hydrographer Recommendations

The Hydrographer recommends not adding the CFF rock to the chart.

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CFF RK DSP During shoreline verification, a 30x100m visual search was conducted, with a water visibility of 3m. The CFF rock at 55°56'01.571"N , 134°08'07.749"W (554009.27E , 6199045.94N)was not seen and disproved with DP 11157. The area was not accessible to be covered with multibeam data. RECDAT - 20050425

Office Notes

Remove charted rock

2.21) 11171

Survey Summary

Survey Position:	55° 57' 22.535" N, 134° 07' 14.235" W
Least Depth:	6.68 m
Timestamp:	2005-117.17:02:55.000 (04/27/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-117 / 1117_$csymb_p.shp
Profile/Beam:	1/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DSP

During shoreline verification, the CFF rock located at 55°57'22.535"N , 134°07'14.235"W (554906.08E , 6201560.58N) was not seen within a search radius of approximately 50m, with a visibility of about 3m through the water. The area could not be covered with multibeam data, but the rock was disproved with DP 11171.

Hydrographer Recommendations

The Hydrographer recommends not adding the CFF rock to the chart.

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - CFF RK DSP During shoreline verification, the CFF rock located at 55°57'22.535"N , 134°07'14.235"W (554906.08E , 6201560.58N) was not seen within a search radius of approximately 50m, with a visibility of about 3m through the water. The area could not be covered with multibeam data, but the rock was disproved with DP 11171. RECDAT - 20050427

Office Notes

Remove charted rock

2.22) 11174

Survey Summary

Survey Position:	55° 54' 18.096" N, 134° 07' 25.815" W
Least Depth:	-3.26 m
Timestamp:	2005-117.19:11:53.000 (04/27/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-117 / 1117_$csymb_p.shp
Profile/Beam:	2/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

SWM EXT NEW LDG

During shoreline verification, a new ledge was found to extend from shore at 55°54'18.096"N , 134°07'25.815"W (554777.48E , 6195856.23N). DP 11174 was used to position the seaward most extent of the new ledge.

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

-1fm 4ft (531_1)

-3.3m (500_1, 50_1)

S-57 Data

Geo object 1:	Cartographic symbol ($CSYMB)
Attributes:	INFORM - SWM EXT NEW LDG During shoreline verification, a new ledge was found to extend from shore at 55°54'18.096"N , 134°07'25.815"W (554777.48E , 6195856.23N). DP 11174 was used to position the seaward most extent of the new ledge. RECDAT - 20050427

Office Notes

Chart new ledge as depicted in HCell

Feature Images

Figure 2.22.1

2.23) 11172

Survey Summary

Survey Position:	55° 57' 56.140" N, 134° 06' 54.559" W
Least Depth:	0.95 m
Timestamp:	2005-117.17:48:27.000 (04/27/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-117 / 1117_uwtroc_p.shp
Profile/Beam:	1/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

During shoreline verification, a new rock was found at 55°57'56.140"N , 134°06'54.559"W (555234.02E , 6202603.80N), positioned with DP 11172. The rock is submerged at low water.

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

0fm 3ft (531_1)

.9m (500_1, 50_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - NEW RK During shoreline verification, a new rock was found at 55°57'56.140"N , 134°06'54.559"W (555234.02E , 6202603.80N), positioned with DP 11172. The rock is submerged at low water. RECDAT - 20050427 VALSOU - 0.955 m WATLEV - 3:always under water/submerged

Office Notes

Chart new rock

2.24) 11281

Survey Summary

Survey Position:	55° 55' 09.889" N, 134° 07' 16.398" W
Least Depth:	-2.87 m
Timestamp:	2005-128.06:24:09.000 (05/08/2005)
DP Dataset:	h11363 / trb1_dpne / 2005-128 / 1128_uwtroc_p.shp
Profile/Beam:	1/1
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

During shoreline investigation, a new rock was found at 55°55'09.889"N , 134°07'16.398"W (554920.67E , 6197459.45N), positioned with DP 11281. The rock covers and uncovers.

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

-1 ½fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

-1fm 3ft (531_1)

-2.9m (500_1, 50_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	INFORM - NEW RK During shoreline investigation, a new rock was found at 55°55'09.889"N , 134°07'16.398"W (554920.67E , 6197459.45N), positioned with DP 11281. The rock covers and uncovers. RECDAT - 20050508 VALSOU - -2.869 m WATLEV - 4:covers and uncovers

Office Notes

Chart new rock

3 - AWOIS Features

3.1) 263/37

Primary Feature for AWOIS Item #53121

Search Position:	55° 57' 41.600" N, 134° 05' 48.500" W
Historical Depth:	16.46 m
Search Radius:	150
Search Technique:	VS,ES,S2,MB
Technique Notes:	[None]

History Notes:

H08604/61--OPR-347; SOUNDING RECORDS IDENTIFY THIS SHOAL WITH A LEAST DEPTH OF 9 FATHOMS. POSITION SCALED OFF OF CHART 17402 IN POSITION LAT. 55/57/41.6N LONG. 134/05/48.5W (NAD 83). (ENTERED 5/04 BY JCA).

Survey Summary

Survey Position:	55° 57' 41.850" N, 134° 05' 46.217" W
Least Depth:	17.09 m
Timestamp:	2005-114.21:39:47.504 (04/24/2005)
Survey Line:	h11363 / 1018_8101 / 2005-114 / 114-2137
Profile/Beam:	263/37
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

AWOIS #53121 CHD 9 1/4 FA

AWOIS #53121 was covered with 200% multibeam data. A least depth of 9.28fa (16.975m) was found at 55°57'41.600"N , 134°05'48.500"W (556424.73E , 6202177.37N).

Hydrographer Recommendations

The Hydrographer recommends retaining the shoal sounding as charted.

Cartographically-Rounded Depth (Affected Charts):

9 ¼fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

9fm 2ft (531_1)

17.1m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: QUASOU - 6:least depth known

TECSOU - 1:found by echo-sounder

Office Notes

Chart 9 fm 2 ft sounding

4 - Dangers to Navigation

4.1) 69/9

DANGER TO NAVIGATION

Survey Summary

Survey Position:	55° 56' 11.912" N, 134° 09' 55.668" W
Least Depth:	8.80 m
Timestamp:	2005-114.21:23:09.301 (04/24/2005)
Survey Line:	h11363 / 1010_8101 / 2005-114 / 114-2122
Profile/Beam:	69/9
Charts Affected:	17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

MBES 4.8fa over charted (17402, 17320, 17360) 10fa

Hydrographer Recommendations

The Hydrographer recommends changing the charted 10 fathoms to the measured value of 4.8 fathoms.

Cartographically-Rounded Depth (Affected Charts):

4 ¾fm (17402_1, 17320_1, 17360_1, 17400_1, 16016_1, 530_1)

4fm 5ft (531_1)

8.8m (500_1, 50_1)

S-57 Data

Geo object 1:	Sounding (SOUNDG)
Attributes:	INFORM - MBES 4.8fa over charted (17402, 17320, 17360) 10fa
	QUASOU - 1:depth known
	TECSOU - 1:found by echo-sounder

Office Notes

Chart DTON as 4 fm 5ft sounding

UNITED STATES DEPARMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : March 2, 2006

HYDROGRAPHIC BRANCH: Pacific Hydrographic Branch
HYDROGRAPHIC PROJECT: OPR-O167-FA-2005
HYDROGRAPHIC SHEET: H11363

LOCALITY: Southern Portion of Spanish Islands, Cape Decision, AK
TIME PERIOD: April 23 - May 30, 2005

TIDE STATION USED: 945-0913 Kuiu Island, AK
Lat. 56 02.2′ N Long. 134 06.9' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.052 meters

TIDE STATION USED: 945-1600 Sitka, AK
Lat. 57 03.1' N Long. 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: SA221, SA226, SA230, SA231, SA232 & SA474

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 1983-2001 National Tidal Datum Epoch (NTDE).

Note 2: Use tide data from the appropriate station with applicable zoning correctors for each zone according to the order in which they are listed in the Tidezone corrector file (*.ZDF). For example, tide station one (TS1) would be the first choice for an applicable zone followed by TS2, etc. when data are not available.

CHIEF, PRODUCTS AND SERVICES DIVISION

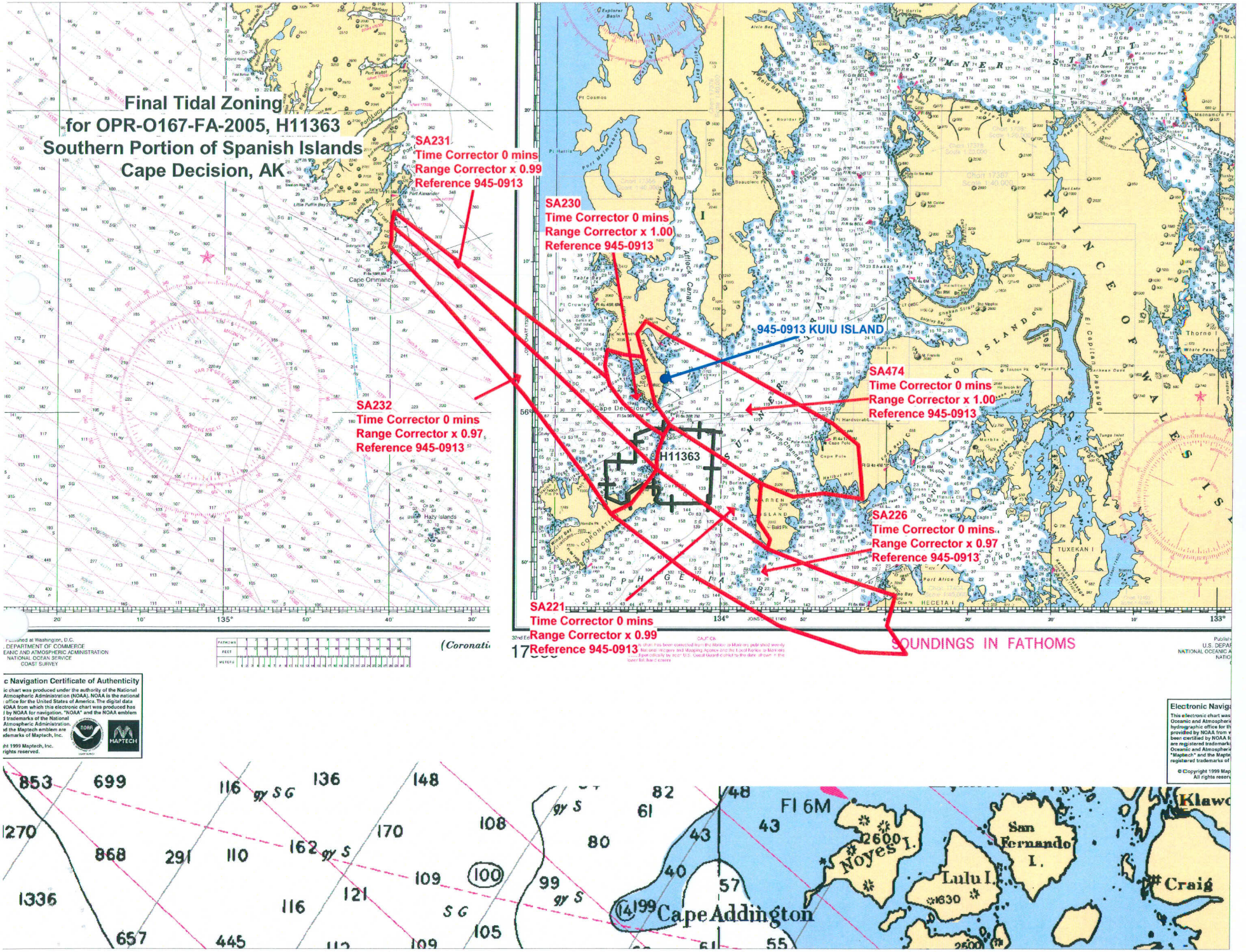
Final tide zone node point locations for OPR-O167-FA-2006, H11363

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 SA221	945-0913	0	0.99
-133.918824 55.920763	945-1600	-6	1.11
-133.924482 55.879303			
-133.899667 55.858593			
-133.905302 55.848019			
-133.9776 55.875591			
-134.129045 55.93643			
-134.129838 55.946046			
-134.127483 55.956102			
-134.120182 55.968104			
-134.116446 55.974103			
-134.103618 55.985751			
-133.918824 55.920763			
Zone SA226	945-0913	0	0.97
-134.129045 55.93643	945-1600	-6	1.09
-134.180977 55.897983			
-134.221058 55.886934			
-134.068642 55.822675			
-133.880478 55.762336			
-133.719365 55.733084			
-133.624251 55.7308			
-133.664038 55.762388			
-133.647453 55.795975			
-133.757776 55.815873			
-133.905302 55.848019			
-133.9776 55.875591			
-134.129045 55.93643			
Zone SA230	945-0913	0	1.00
-134.103618 55.985751	945-1600	-6	1.12
-134.116446 55.974103			
-134.152043 55.986887			
-134.1975 56.009473			
-134.225381 56.030552			
-134.234444 56.051619			
-134.229566 56.069165			

-134.196563 56.063958			
-134.157697 56.061355			
-134.133307 56.009351			
-134.103618 55.985751			
Zone SA231	945-0913	0	0.99
-134.127483 55.956102	945-1600	-6	1.11
-134.129838 55.946046			
-134.129045 55.93643			
-134.347886 56.051564			
-134.523478 56.141033			
-134.66511 56.206372			
-134.660329 56.221471			
-134.450616 56.132362			
-134.287082 56.064682			
-134.228756 56.03766			
-134.225381 56.030552			
-134.1975 56.009473			
-134.152043 55.986887			
-134.116446 55.974103			
-134.120182 55.968104			
-134.127483 55.956102			
Zone SA232	945-0913	0	0.97
-134.180977 55.897983	945-1600	-6	1.09
-134.221058 55.886934			
-134.273112 55.929502			
-134.396857 56.019466			
-134.559311 56.120354			
-134.668297 56.183267			
-134.668297 56.183267			
-134.665109 56.190378			
-134.66511 56.206372			
-134.523478 56.141033			
-134.347886 56.051564			
-134.129045 55.93643			
-134.180977 55.897983			
Zone SA474	945-0913	0	1.00
-133.853342 55.905959	945-1600	-6	1.13
-133.790829 55.910042			
-133.714505 55.903509			
-133.717304 55.925575			
-133.723878 55.963757			
-133.77518 55.987536			
-133.849498 56.010574			
-133.982323 56.051299			
-134.108822 56.085794			
-134.153367 56.100996			

-134.170435 56.087094
-134.157697 56.061355
-134.133307 56.009351
-134.103618 55.985751
-133.918824 55.920763
-133.853342 55.905959


Final Tidal Zoning
for OPR-O167-FA-2005, H11363
Southern Portion of Spanish Islands
Cape Decision, AK
SA231
Time Corrector 0 mins
Range Corrector x 0.99
Reference 945-0913
SA230
Time Corrector 0 mins
Range Corrector x 1.00
Reference 945-0913
945-0913 KUIU ISLAND
SA474
Time Corrector 0 mins
Range Corrector x 1.00
Reference 945-0913
SA232
Time Corrector 0 mins
Range Corrector x 0.97
Reference 945-0913
H11363
SA226
Time Corrector 0 mins
Range Corrector x 0.97
Reference 945-0913
SA221
Time Corrector 0 mins
Range Corrector x 0.99
Reference 945-0913
SOUNDINGS IN FATHOMS
Cape Addington
Noyes I.
Lulu I.
San Fernando I.
Craig
Fl 6M

H11363 HCell Report

Sarah Wolfskehl, Physical Scientist
Pacific Hydrographic Branch

Introduction

The primary purpose of the HCell is to directly update NOAA ENCs with new survey information in International Hydrographic Organization (IHO) format S-57. HCell compilation of survey H11363 utilized Office of Coast Survey HCell Specifications Versions 3.0, in conjunction with the Field and Processing Branch Features Encoding Guide for West Coast US and Alaska Version 1.3. HCell H11363 will be used to update chart 17402, 1:40,000 (11th Ed., Dec. 1, 2005, NM 10/12/05) and also applies to charts 17320, 1:217,828 (18th Ed. Mar. 1, 2008, NM 1/1/08) and 17360, 1:217,828 (35th Ed., Jun. 1, 2008, NM 6/14/08).

1. Compilation Scale

Contours and the density of soundings are compiled as appropriate to emulate those of Chart 17402, 1:40,000. Position and density of features included in the HCell have not been generalized from the scale of the hydrographic survey, 1:10,000, or from LIDAR survey H11209, 1:10,000.

2. Soundings

2.1 Source Data

A 12 m resolution combined BASE surface, H11363_combined_12m.hns was used as the basis for HCell production following Branch certification.

A survey-scale full density sounding (SOUNDG) feature object source layer was built from the H11363_combined_12m.hns surface in CARIS BASE Editor. A shoal-biased selection was made at the 1:10,000 survey scale using a radius table with values shown in Table 1. The sounding feature object source layer was exported as H11363_SS.hob, and imported into CARIS S-57 Composer.

Upper Limit (m)	Lower Limit (m)	Radius (mm)
0	10	3
10	20	4
20	50	4.5
50	345	5

Table 1.

2.2 Sounding Feature Objects

In CARIS BASE Editor soundings were manually selected from the survey scale sounding set H11363_SS.hob to create a chart scale sounding set H11363_CS.hob. The H11363_CS.hob sounding selection emulates the density and distribution of soundings on chart 17402, while more closely representing the seafloor morphology. The soundings were selected with regard to the 10, 20 and 50 fathom contours.

3. Depth Areas

3.1 Source Data

The finalized Base Surface, H11363_combined_12m.hns, was used to generate a depth area, and for survey evaluation and verification purposes only, a set of contours. The contour set included the chart equivalent, 10, 20, and 50 fathom contour. The depth contours were not submitted as deliverables, as according to OCS HCell Specifications ver. 3.0.

H11363 junctions with LIDAR survey H11209. The depth area for survey H11363 incorporates the LIDAR survey H11209 between the multibeam extents and the MHW line from the GC shoreline. Large gaps in the DEPARE exist where the area was neither covered by multibeam nor LIDAR data.

3.2 Depth Area Feature Objects

One all-encompassing depth range, 0 meter to 345 meters, was used for all depth area objects below MLLW. Upon conversion to NOAA charting units, this depth range is 0 to 188.6 fathoms.

4. Meta Areas

The following Meta object areas are included in HCell H11363:

M_QUAL
M_COVR

Meta area objects were constructed from filtered perimeter lines delineating the survey limits. The perimeter was first used to create the Skin of the Earth (SOTE) layer, then duplicated to the Meta object layers and attributed per the OCS HCell Specifications, Ver. 3.0.

5. Survey Features

Survey features for H11363 were delivered in Pydro and Notebook format. One DtoN was submitted with this survey and has been applied to charts 17402, 17320 and 17360 and has been retained in the HCell. One AWOIS item was also investigated by the field. The cartographic actions taken for each survey feature addressed by the field are noted in the Pydro file H11363_Office.pss under the office notes tab. The office notes are printed in red at the bottom of each page of the feature report exported from Pydro. For cartographic actions to be taken for features not included in the Pydro pss see blue notes. Retained features from chart 17402, such as bottom samples, rocks, ledges, tide rips, and foul areas, which fall within the survey limits were digitized to the HCell.

6. Shoreline / Tide Delineation

The Mean High Water value used to create the depth area defining the ledges, reefs and islets from H11363 was taken from the Tide Note. Data from two tide stations was submitted with the Tide Note. The MHW value from the primary station, 945-0913 Kuiu Island, AK was 3.052m. When converted to chart units the MHW value is 1 fathom 4 feet. The secondary tide station,

945-1600 Sitka, AK, has a MHW value of 2.791m. This was the same tide station used for LIDAR survey H11209. The LIDAR MHW value was applied to ledges, reefs and islets from the LIDAR data. When converted to chart units the MHW value is 1 fathom 3 feet. Limited shoreline investigation was performed for this survey.

7. Attribution

All S-57 feature objects have been attributed as fully as possible based on information provided by the Hydrographer and in accordance with OCS HCell Specifications ver. 3.0 and the Field and Processing Branch Features Encoding Guide for West Coast US and Alaska, Version 1.3.

8 Blue Notes

Notes regarding HCell feature compilation are included in the HCell as cartographic symbols, acronym $CSYMB. Blue Note point features have been placed directly on the feature they refer to. The $CSYMB Blue Note layer has also been included as a text delineated ASCII file for raster chart production titled H11363_BlueNotes.txt.

9. Spatial Framework

9.1 Coordinate System

All spatial map and base cell file deliverables are in an LLDG geographic coordinate system, with WGS84 horizontal, MHW vertical, and MLLW (1983-2001 NTDE) sounding datums.

9.2 Horizontal and Vertical Units

During creation of sounding sets and contours, and creation of the HCell, units are maintained as metric with millimeter resolution. NOAA rounding is applied at the same time that conversion to chart units is made to the metric HCell base cell file, at the end of the HCell compilation process.

The CARIS environment variable, uslXsounding_round, controls the depth at which rounding occurs. Setting this variable to NOAA fathoms and feet displays all soundings equal to or greater than 11 fathoms as whole units. Depths shoaler than 11 fathoms are shown in fathoms and feet.

In an ENC viewer fathoms and feet display in the format X.YZZZ, where X is fathoms, Y is feet, and ZZZ is decimals of the foot. For fathoms and feet between 0 and 10 fathoms 4.5 feet (10.75 fms), soundings round to the deeper foot if the decimals of the foot are X.Y75000 or greater. For fathoms and feet deeper or equal to 11 fathoms, soundings round to the deeper fathom if feet and decimals of the foot are X.45000 (X.Y75000) or greater. In an ENC viewer, heights greater than 6 feet will register in fathoms and feet using the above stated rules. Drying heights are in feet and are rounded using arithmetic methods.

S-57 Composer Units

Sounding Units:	Meters rounded to the nearest millimeter
Spot Height Units:	Meters rounded to the nearest meter

Chart Unit Base Cell Units

Depth Units (DUNI):	Fathoms and feet
Height Units (HUNI):	Feet
Positional Units (PUNI):	Meters

10. QA/QC

10.1 Data Processing Notes

H11363 junctions with LIDAR survey H11209. HCell H11363 includes the multibeam coverage area, plus the inshore LIDAR coverage area between the multibeam extents and the GC10546 coastline. The HCell includes multibeam and LIDAR soundings as well as features from the field, lidar data, GC shoreline, and chart. Islets digitized from the chart do not have an associated LNDELV.

10.2 ENC Validation Checks

H11363 was subjected to QA and Validation checks in S-57 Composer prior to exporting to the HCell base cell (000) file. Full millimeter precision was retained in the export of the metric S-57 base cell data set. This data set was then converted to a chart unit 000 file. dKart Inspector 5.1 was then used to further check the data set for conformity to the S-58 version 2 standard (formerly Appendix B.1 Annex C of the S-57 standard). All tests were run and errors investigated and corrected where necessary.

11. Products

11.1 MCD Deliverables

H11363 Base Cell File, Chart Units, Soundings compiled to 1:40,000
H11363 Base Cell File, Chart Units, Soundings compiled to 1:10,000
H11363 Descriptive Report including end notes compiled during office processing, certification, shoreline feature report, tide note and HCell report
Blue Note ASCII .txt file

11.2 File Naming Conventions

S-57 Composer file: *H11363_Hcell.hob*

MCD Chart units base cell file: *US511363_CS.000*

MCD Chart units base cell file, survey scale soundings: *US511363_SS.000*

11.3 Software

HIPS 6.1:	Management and inspection of combined BASE surfaces
BASE Editor 2.1:	Combination of product surfaces and initial creation of the S-57 bathymetry-derived features, examination of base cell files against the chart; chart density sounding selection
S-57 Composer	Assembly of the HCell, S-57 products, QA
GIS 4.4a:	Setting the sounding rounding variable
dKart Inspector 5.1:	S-58 Validation of the HCell base cell file

12. Contacts

Inquiries regarding this HCell content or construction should be directed to:

Sarah Wolfskehl
Pacific Hydrographic Branch
Seattle, WA
206-526-6859
Sarah.Wolfskehl@noaa.gov

APPROVAL SHEET
H11363

Initial Approvals:

The survey evaluation and verification has been conducted according to branch processing procedures and the H-Cell compiled per the latest OCS H-Cell Specifications.

Sarah Wolpshl

The survey and associated records have been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, S-57 classification and attribution of soundings and features, cartographic characterization, and verification or disproval of charted data within the survey limits. The survey records and digital data comply with OCS requirements except where noted in the Descriptive Report and are adequate to supersede prior surveys and nautical charts in the common area.

Gary C. Nelson
2009.04.14
10:11:56 -07'00'

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

David Neander
2009.04.14
10:58:57
-07'00'

J. Corey Allen
AWOIS and SURF Review Complete
2009.04.15 11:40:52 -04'00'