

H11479

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. RA-10-14-05

Registry No. H11479

LOCALITY

State Alaska

General Locality Southwest Alaska Peninsula

Sublocality Cushing Bay and Sosbee Bay to Spitz Island

2005

CHIEF OF PARTY

..... Commander Guy T. Noll, NOAA

LIBRARY & ARCHIVES

DATE

HYDROGRAPHIC TITLE SHEET

H11479

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.
RA-10-14-05State AlaskaGeneral Locality Southwest Alaska PeninsulaSublocality Cushing Bay and Sosbee Bay to Spitz IslandScale 1:10,000Date of Survey July 28, 2005-August 21, 2005Instructions Dated 7/1/2005Project No. OPR-P182-RA-05Vessel RA1 (1101), RA2 (1103), RA3 (1021), RA4 (1016), RA5 (1006), RA6 (1015)Chief of Party Commander Guy T. Noll, NOAASurveyed by RAINIER PersonnelSoundings taken by echo sounder RESON 8101, Reson 8125, Elac 1180, Knudsen 320MGraphic record scaled by N/AGraphic record checked by N/AEvaluation by K. BrownAutomated plot by HP Designjet 1050CVerification by K. Brown, K. ReserSoundings in Fathoms and Feet

at

MLLWREMARKS: Time in UTC. UTM Projection Zone 4Revisions and annotations appearing as endnotes were
generated during office processing.As a result, page numbering may be interrupted or non-sequentialAll separates are filed with the hydrographic data.

Descriptive Report to Accompany Hydrographic Survey H11479

Project OPR-P182-RA-05
Mitrofanina Island, AK
Cushing Bay and Sosbee Bay to Spitz Island
Scale 1:10,000
July- August 2005
NOAA Ship RAINIER (s221)
Chief of Party: Commander Guy T. Noll, NOAA

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-P182-RA-05, dated July 1, 2005, Standing Instructions for Hydrographic Surveys dated March 2004, NOS Hydrographic Surveys Specifications and Deliverables Manual dated March 2003 and NOS Field Procedures Manual for Hydrographic Surveying dated March 2005, with the exception of deviations noted in this report. The survey area is Cushing Bay and Sosbee Bay to Spitz Island, Alaska. This survey corresponds to sheet "AY" in the sheet layout provided with the Letter Instructions.

One hundred percent shallow-water multibeam (SWMB) coverage was obtained in the survey area in waters 8 meters and deeper, except where the required junction with contemporary LIDAR surveys was obtained further offshore or the 8 meter curve was too close to shore for safe operation of the launches.¹ In 4-8 meters of water 100% SWMB coverage was obtained as necessary to junction with contemporary LIDAR surveys and to acquire coverage of significant features or shoals identified for investigation in the Letter Instructions.²

Limited Shoreline Verification was performed in the survey area. A traditional Vertical Beam Echo Sounder (VBES) buffer was run at the 4 meter contour to define the inshore limit of shoreline feature investigation, except in areas where the 4 meter curve was dangerously close to shore or other exposed features.³

Data acquisition was conducted from July 28 to August 21, 2005 (DN 209 to 233).

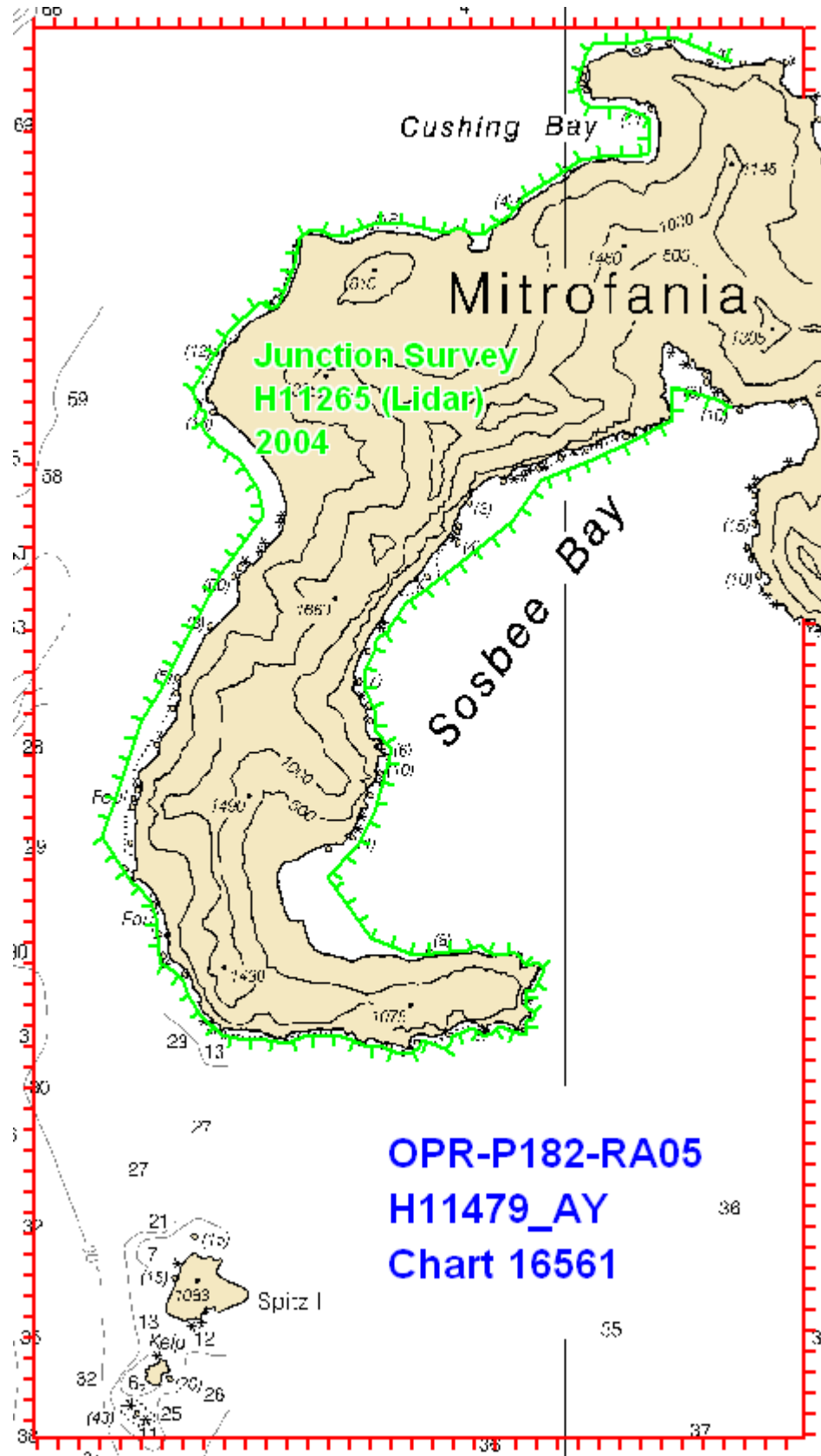


Figure 1. H11479 Survey Limits

B. DATA ACQUISITION AND PROCESSING

A complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods can be found in the *OPR-P182-RA-05 Data Acquisition and Processing Report (DAPR)*⁴, submitted under separate cover. Items specific to this survey, and any deviations from the aforementioned report are discussed in the following sections.

Verified Water Levels with Preliminary Zoning have been applied to this survey.⁵ See Section C. for details.

B1. Equipment and Vessels

Data for this survey were acquired by the following vessels:

Hull Number	Name	Acquisition Type
1101	RA-1	Vertical-Beam Echosounder Detached Positions Bottom Samples
1103	RA-2	Vertical-Beam Echosounder Detached Positions Bottom Samples
1021	RA-3	Multi-Beam Echosounder (Reson 8101)
1016	RA-4	Multi-Beam Echosounder (Reson 8125)
1006	RA-5	Multi-Beam Echosounder (Reson 8101)
1015	RA-6	Multi-Beam Echosounder (Elac 1180)

Table 1. Data Acquisition Vessels for H11479.

Sound velocity profiles were measured with SEACAT SBE 19 Plus Profilers according the Specifications and Deliverables.

No unusual vessel configurations were used for data acquisition.

B2. Quality Control

Crosslines

Shallow-Water Multibeam (SWMB) crosslines totaled 43.71 nautical miles, comprising 11.35% of SWMB hydrography. The mainscheme bathymetry was manually compared to the XL nadir beams in CARIS subset mode and agreed well with no significant differences noted.⁶

A statistical Quality Control Report was generated for SWMB data acquired on this project to validate launch offsets and sonar biases. A copy of this report is included in the OPR-P182-RA-05 DAPR.

Junctions

The following contemporary surveys junction with H11479⁷ (see Figure 2):

<u>Registry #</u>	<u>Scale</u>	<u>Date</u>	<u>Junction side</u>
H11265	LIDAR	2004	Center

H11479 survey junctions well with LIDAR survey H11265. Sonar coverage was extended inshore as necessary to provide an adequate overlap of good agreement with the LIDAR bathymetry. A cursory comparison using CARIS HIPS and SIPS indicates no notable differences.⁸ Some fliers have been found scattered through the LIDAR survey data (see Figure 2). The hydrographer recommends that H11479 supersede all bathymetry from the junction survey in the common area.⁹

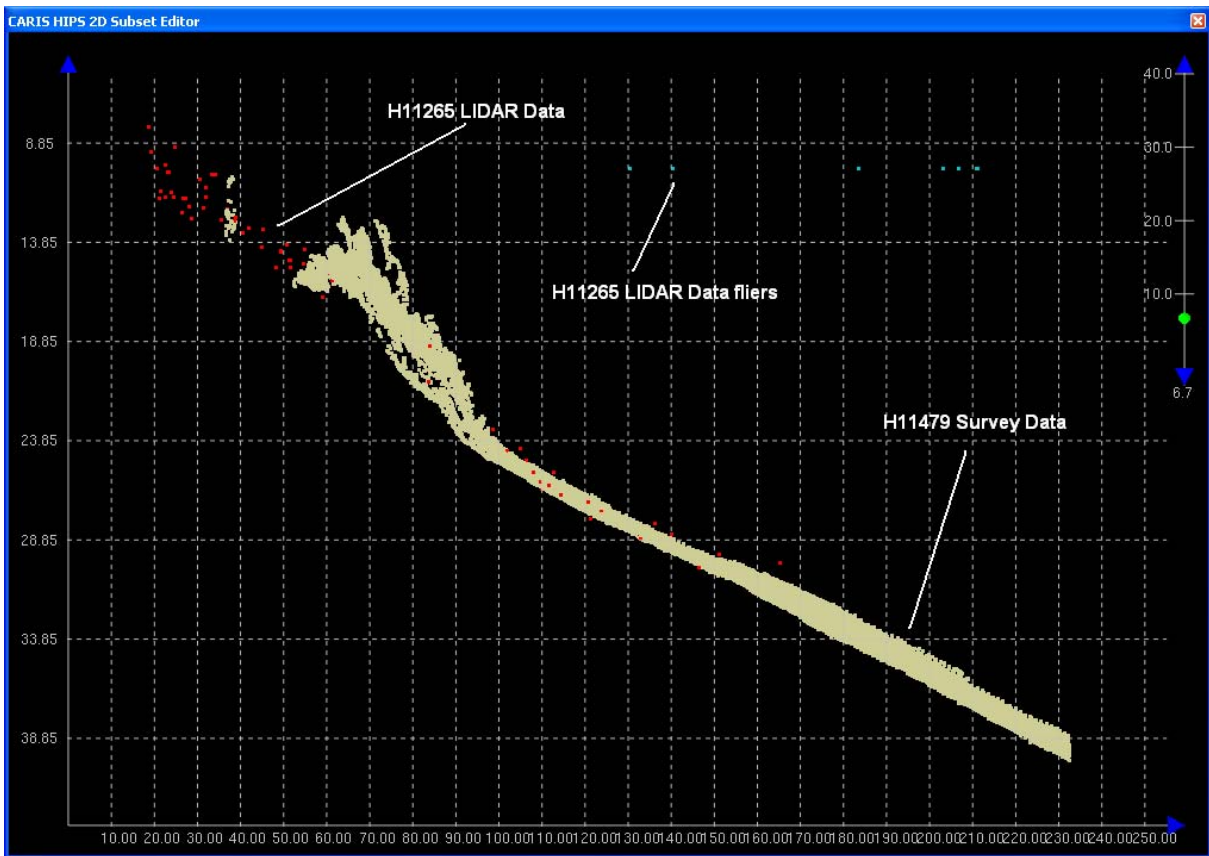


Figure 2. Example 2-D subset of LIDAR data Survey H11265 and Survey H11479 data.

Final comparisons will be made at the Pacific Hydrographic Branch (PHB) after the application of final approved (smooth) water levels.¹⁰

Data Quality Factors

Data for survey H11479 exhibited no major deficiencies.¹¹

Attitude Latency:

Due to a timing latency between the motion sensor and the Reson 8101, some data collected by Vessel 1006 (RA-5) on the western side of Mitrofanina Island on July 31, 2005 (DN 212) form “bow-tie” patterns (see Figure 3). On July 31, 2005 the weather conditions were 2 to 3 ft swells out of the south west which could explain the problems seen in the data. Those soundings with estimated errors exceeding the limits set forth in the NOS Hydrographic Surveys Specifications and Deliverables were manually rejected in CARIS HIPS and SIPS subset mode.¹²

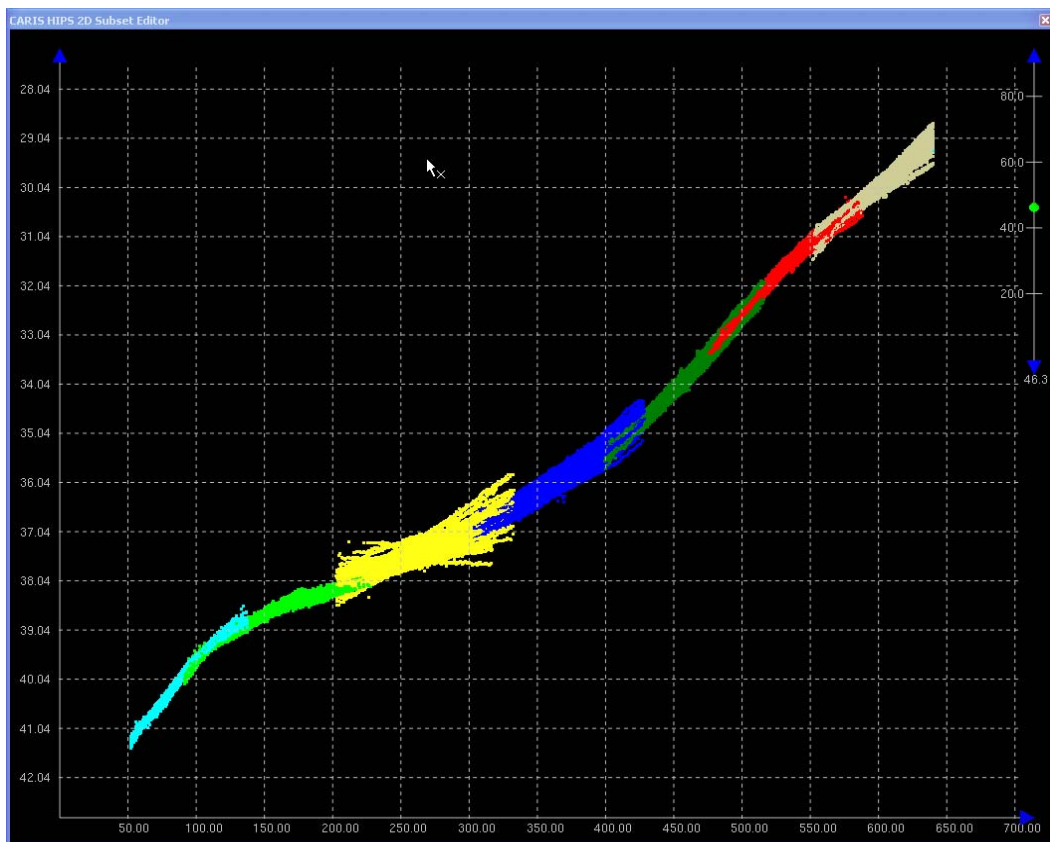


Figure 3. 2-D subset of data collected on July 31, 2005 (DN 212), by RA5 (1006) western side of Mitrofanina Island

Sound Speed Errors:

Data collected between Mitrofanina Island and Spitz Island by Vessel 1016 (RA-4) on August 1, 2005 (DN 213), exhibit “smile” patterns as well as some timing latency between the motion sensors and the Reson 8125. In an attempt to correct the sound velocity problems of the data acquired in this area, SVP files were applied “Nearest in Distance”. However, when no improvements were realized, sound velocity profiles were re-applied “Nearest in Time”. Overlapping data in 1016_DN213 that differed in depth beyond the allowance made by the

NOS Hydrographic Surveys Specifications and Deliverables were trimmed out in Caris HIPS and SIPS by filtering 55/55 degrees port/starboard. This data were inspected for features prior to filtering and the data was manually reaccepted where necessary to obtain the high point over a feature.¹³ Figure 4 is a screen grab of representative data in Caris HIPS and SIPS swath mode.

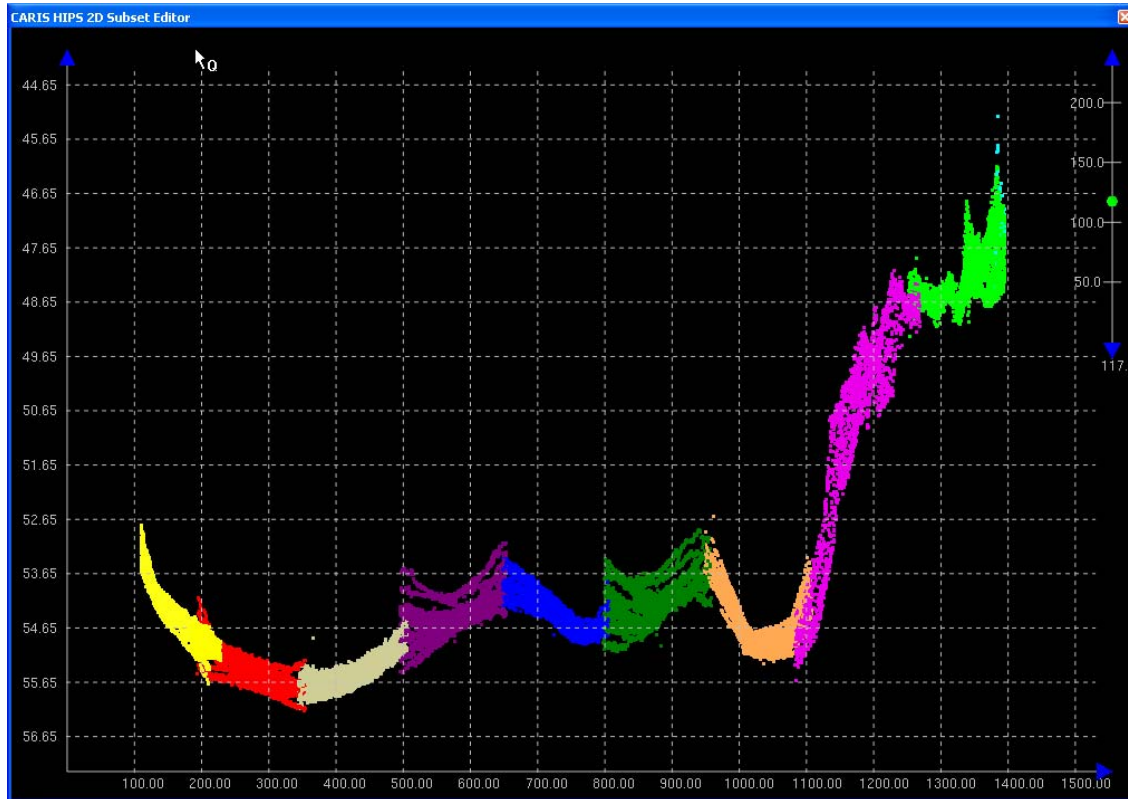


Figure 4. 2-D subset of data collected on August 1, 2005 (DN 213), by RA4 (1016) between Mitrofanina Island and Spitz Island

Bathymetry swaths acquired on July 30, 2005 (DN 211) around Spitz Island and on August 7, 2005 (DN 219) in the eastern corner of Sosbee Bay of the survey limits of H11479 exhibit “smile” patterns indicative of sound speed profile problems. In an attempt to correct the sound velocity problems, “Nearest in Distance” and “Nearest in Time” SVP correctors were applied to the affected data. When these actions failed to solve the problem, “Previous-in-Time” SVP correctors were reapplied. Neither of the above attempts resolved the observed refraction error. Thus, to minimize the effects of these refraction errors in the HDCS data on the final BASE surface, lines of data with refraction errors exceeding the maximum acceptable limit of 0.3 meters plus 0.5 percent of the water depth were rejected using a swath angle filter. 1016_DN211 and 1021_DN219 were filtered 55/55 and 57/57 degrees port/starboard respectively. This data was inspected for features prior to filtering and the data was manually reaccepted where necessary to obtain the high point over a feature.¹⁴

B3. Data Reduction

Data reduction procedures for survey H11479 conform to those detailed in the *OPR-P182-RA-05 DAPR*.¹⁵

B4. Data Representation

Many BASE surfaces were used in processing H11479. Final BASE surface resolutions and depth ranges were set in accordance with the Field Procedures Manual, with field sheets smaller than 25×10^6 nodes. The submission Field Sheet and BASE Surface structure are shown in Figures 5 and 6.

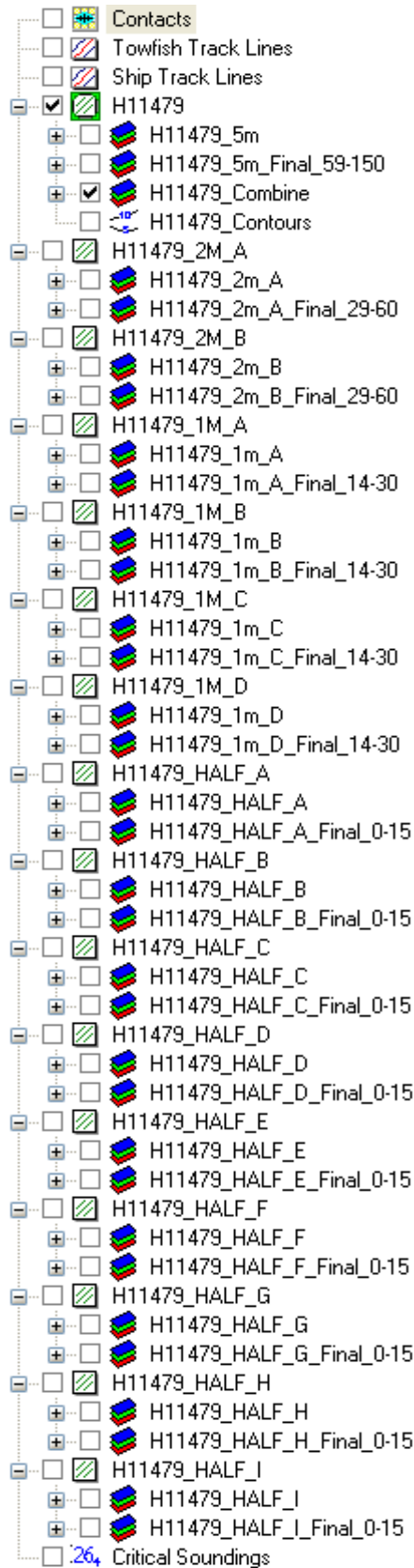


Figure 5: Screen grab of the field sheets and BASE surfaces submitted with H11479.

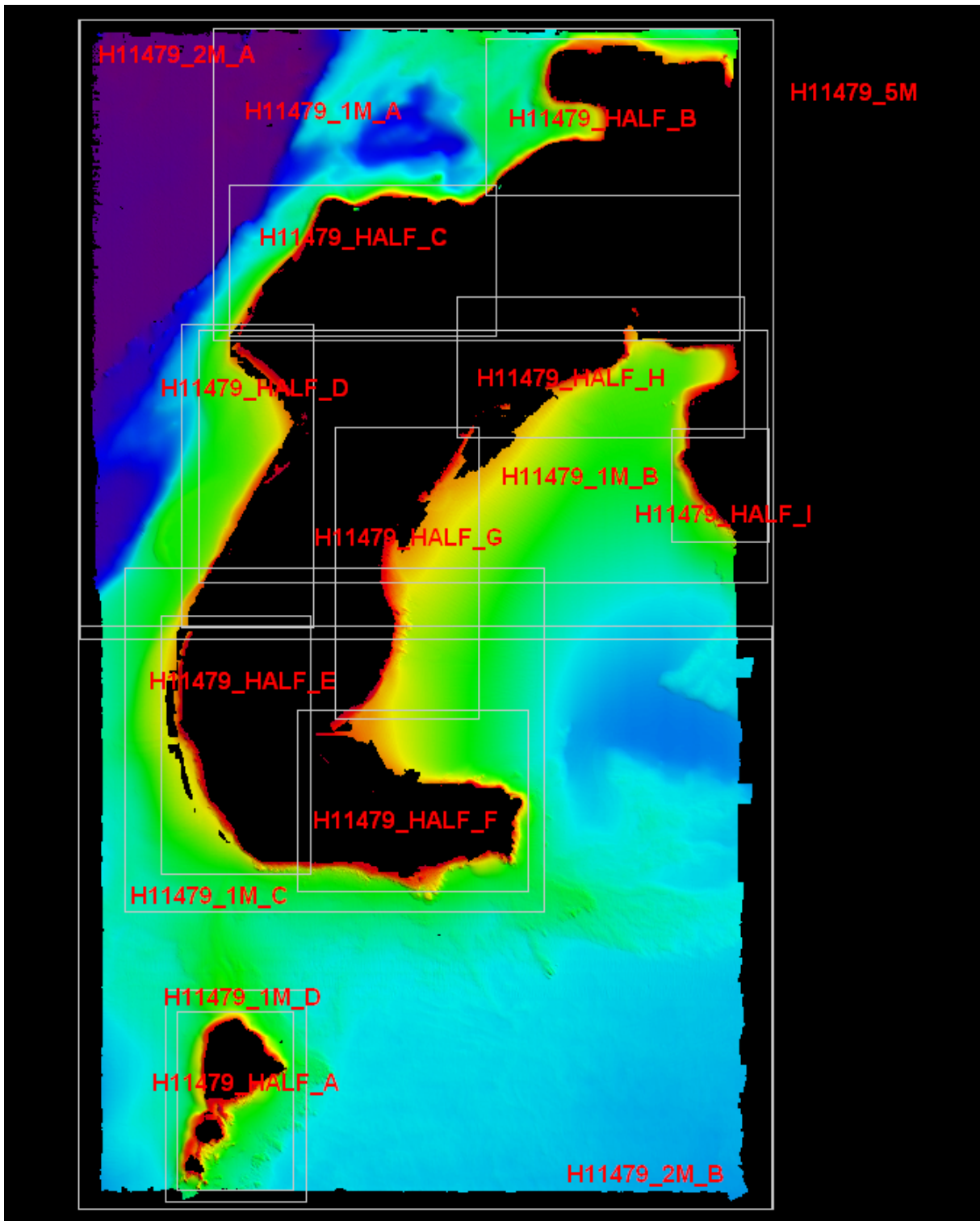


Figure 6: Screen grab of the field sheets and their resolutions for H11479.

C. VERTICAL AND HORIZONTAL CONTROL

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. The differential corrector beacons utilized for this survey are given in Table 2. RAINIER personnel established a temporary differential beacon on Mitrofanina Island as a backup to USCG-generated correctors. This beacon was utilized when the USCG beacons could not be received due to atmospheric effects, and is described in detail in the *OPR-P182-RA-05 Horizontal and Vertical Control Report*.¹⁶ Changes in the corrector source were noted in the data acquisition logs.

Location	Frequency	Custodian	Distance	Priority
Cold Bay	289 kHz	USCG	135nm	Primary
Kodiak	313 kHz	USCG	245nm	Primary
Mitrofanina Island	NOAA F4	NOAA (“flyaway”)	0nm	Backup

Table 2: Differential Corrector Sources for H11479.

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 Sand Point, AK (945-9450) served as control for datum determination and as the primary source for water level reducers for survey H11479.

No tertiary gauges were required by the Letter Instructions for this project. However, RAINIER personnel installed a Sutron 8210 “bubbler” tide gauge at the following subordinate station for supplementary information and training purposes. This station is described in detail in the *OPR-P182-RA-05 Horizontal and Vertical Control Report*.

Station Name	Station Number	Type of Gauge	Date of Installation	Date of Removal
Mitrofanina Island	945- 9016	30-day	July, 2005	August, 2005

Table 3: Tide Stations installed by RAINIER personnel for H11479

All data were reduced to MLLW using **verified observed water levels** from station Sand Point, AK using the tide file 9459450.tid and **preliminary time and height correctors** using the zone corrector file P182RA2005CORP.zdf supplied with the project CD.

The Pacific Hydrographic Branch will apply final approved water level to the survey data during final processing.¹⁷ A request for delivery of final approved water level for survey H11479 was forwarded to N/OPS1 on September 17, 2005. A copy of the request is included in Appendix IV.¹⁸

D. RESULTS AND RECOMMENDATIONS

D.1. Chart Comparison

D.1.a. Survey Agreement with Chart

Survey H11479 was compared with the following chart:
16561 (2nd Ed., March, 2005, 1:80,000, corrected through NM 26/05)

Chart 16561¹⁹

Depths from survey H11479 generally agreed within one to two fathoms with chart 16561.²⁰ The hydrographer recommends that the bathymetry from H11479 supersede prior surveys and charted depths in the common area.²¹

Final chart comparisons will be made at the Pacific Hydrographic Branch after the application of final approved water levels.²²

D.1.b. Dangers to Navigation

No DTONs were identified in H11479.²³

D.1.c. Other Features

Automated Wreck and Obstruction Information System (AWOIS) Investigations

No AWOIS investigations were required during H11479.²⁴

Additional Items

No additional charted items were investigated and no other features were located on survey H11479.²⁵

D.2. Additional Results

D.2.a. Prior Survey Comparison

Prior survey comparison with H11479 was not performed.

D.2.b. Shoreline Verification

Shoreline Source

Vector photogrammetric project AK-0403 was supplied by N/NGS3 in the form of cartographic feature file (CFF) GC-10571. RAINIER conducted limited shoreline verification of the CFF. In addition, features shown on the current editions of chart 16561 that were not depicted on the shoreline source document was digitized in MapInfo by RAINIER personnel and displayed in Hypack for field verification.

In addition to the CFF and charted features, LIDAR data were provided, along with two LIDAR features files from the LIDAR descriptive report in the form of MapInfo tables H11265_smoothsheet_lines (line features), H11265_Lidar_Investigation (point features). All features from the H11265_Lidar_Investigation were addressed and are portrayed on the Detached Position and Bottom Sample Plot.

Shoreline Verification

Limited shoreline verification was conducted near predicted low water in accordance with the Standing Project Instructions and FPM sections 6.1 and 6.2. Detached positions (DPs) taken during shoreline verification were recorded in HYPACK and on DP forms, and processed in Pydro. These indicate revisions to features and features not found on the verified shoreline. In addition, annotations describing shoreline were recorded on hard copy plots of digital shoreline. DP forms are included in the *Separates to be Included with Survey Data*.²⁶

A detailed Feature Plot in MapInfo format is provided showing all detached positions and bottom samples with notes relating to each feature. Verified CFF shoreline and CFF point features that did not require revisions are located in MapInfo tables H11479_CFF_Shoreline and H11479_CFF_RKS, respectively. Charted shoreline and point features, when used for reference purposes or when source data were not available, are depicted in brown and are found in the MapInfo tables H11479_CHD_Shoreline and H11479_CHD_RKS. Verified LIDAR shoreline and LIDAR point features that did not require revisions are located in MapInfo tables H11479_LIDAR_Shoreline and H11479_LIDAR_RKS, respectively. Changes to CFF, LIDAR, and charted shoreline are displayed in pink in the H11479_SHORELINE_UPDATES MapInfo table.

Source Shoreline Changes and New Features

Items for survey H11479 that require further discussion and are associated with a detached position have been flagged "Report" in Pydro in H11479.pss. Investigation methods and recommendations are listed in the Remarks and Recommendation tabs. These features are included in the Survey Feature Report in Appendix I.²⁷

Many of the features investigated as part of H11479 fall within 0.8 millimeters of the MHW line at the scale of the largest scale chart of the area. The hydrographer notes that most of these features will be difficult to portray cartographically. This extensive shoreline

investigation was the result of HSD's requirement that RAINIER verify numerous features from the junction survey.²⁸

The CHD (16561) rocks at 55°53'29.53" N 158°49'49.95" W (510598.24 , 6194020.82) were not noted individually because the area is foul with kelp and rocks.²⁹

Recommendations

The Hydrographer recommends that the shoreline as depicted on the Detached Position and Bottom Sample MapInfo digital file supersede and complement shoreline information compiled on the CFF, LIDAR, and charts as noted.³⁰ In addition, field notes made by the Hydrographer, including verification and observation of source features or charted features if no source shoreline was available are submitted in the digital MapInfo file H11479_SHORELINE_NOTES.

D.2.c. Aids to Navigation

There are no Aids to Navigation within the limits of H11479.³¹

D.2.d. Overhead features

There are no overhead features in survey H11479.³²

D.2.e. Submarine Cables and Pipelines

There are no submarine cables and pipelines in survey H11479.³³

D.2.f. Ferry Routes

There are no ferry routes on H11479.³⁴

D.2.g. Bottom Samples

Bottom samples were collected and are depicted on the Detached Position and Bottom Sample Plot.³⁵

E. ADDITIONAL DOCUMENTATION

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

<u>Title</u>	<u>Date Sent</u>	<u>Office</u>
Data Acquisition and Processing Report for OPR-P182-RA-05	1 July 2006	N/CS34
Coast Pilot Report for OPR-P182-RA-05	10 May 2006	N/CS26
Horizontal and Vertical Control Report for OPR- P182-RA-05	16 June 2006	N/CS34
Tides and Water Levels Package for OPR- P182-RA-05	29 August 2006	N/OPS1



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of Marine and Aviation Operations
Marine Operations Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

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

FROM: CDR Guy Noll, NOAA
Commanding Officer
NOAA Ship RAINIER

DATE: June 1, 2006

TITLE: Approval of Hydrographic Survey H11479

Field operations for hydrographic survey H11479 were conducted under my direct supervision with frequent personal checks of progress and adequacy. I have reviewed the attached survey data and reports. The survey data meets or exceeds requirements as set forth in the NOS Hydrographic Surveys and Specifications Deliverables Manual, Field Procedures Manual, Standing and Letter Instructions, and HSD Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required. Data and reports are respectfully submitted to N/CS34, Pacific Hydrographic Branch.

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

Survey Manager:

Nicola Samuelson
Lieutenant (junior grade), NOAA

Chief Survey Technician:

James B. Jacobson
Chief Survey Technician, NOAA Ship RAINIER

Field Operations Officer:

Benjamin K. Evans
Lieutenant, NOAA

Revisions Compiled During Office Processing and Certification

¹ Concur.

² Concur.

³ Concur.

⁴ Filed with project records.

⁵ Concur. Final approved water levels were applied to all data during the survey acceptance review.

⁶ Concur.

⁷ Concur with clarification. H11479 also junctions with a portion of LIDAR survey H11264 on the east side of the sheet.

⁸ Concur.

⁹ Concur with clarification. Data from H11479 will supersede LIDAR data in the common area except in the instance of a shoaler LIDAR sounding coincident with a deeper multibeam sounding.

¹⁰ A cursory comparison during compilation agreed with field comparisons.

¹¹ Concur.

¹² The processed data meets specification despite the attitude errors.

¹³ The processed data meets specification despite the SV errors.

¹⁴ The processed data meets specification despite the SV errors.

¹⁵ Concur.

¹⁶ Filed with project records.

¹⁷ Final approved water levels were applied to all data during the survey acceptance review.

¹⁸ See attached Tide Note dated January 10, 2006.

¹⁹ The version of chart 16561 used during compilation was the 3rd Ed., March 2007, NM 2/7/2009.

²⁰ Concur.

²¹ Concur.

²² Final chart comparisons agreed with field comparisons.

²³ Concur.

²⁴ Concur.

²⁵ Do not concur. Additional features were investigated during limited shoreline investigation. See results in attached Feature Report.

²⁶ Filed with hydrographic records.

²⁷ See attached Feature Report.

²⁸ Concur.

²⁹ Concur with clarification. Chart this area as depicted in HCell H11479.

³⁰ Concur with clarification. Due to spacing concerns while compiling the HCell, some of the features may not be included or were modified, contradicting the hydrographer's recommendations. Full detail on such features are included in the Office Notes in the attached Feature Report.

³¹ Concur.

³² Concur.

³³ Concur.

³⁴ Concur.

³⁵ All bottom samples collected during H11479 are included in the HCell. There were no charted bottom samples to be retained.

H11479 Feature Report

Registry Number: H11479
State: Alaska
Locality: Mitrofanina Island
Sub-locality: West Mitrofanina Island
Project Number: OPR-P182_RA-05
Survey Dates: 01/01/1990 - 08/21/2005

Charts Affected

Number	Version	Date	Scale
16556	4th Ed.	11/01/2002	1:80000
16561	2nd Ed.	03/01/2005	1:80000
16013	29th Ed.	11/01/2003	1:969761
16011	36th Ed.	08/01/2004	1:1023188
16006	33rd Ed.	12/23/2000	1:1534076
500	8th Ed.	06/01/2003	1:3500000
530	31st Ed.	06/01/2005	1:4860700
50	6th Ed.	06/01/2003	1:10000000

Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Rock	-1.73 m	055° 50' 39.278" N	158° 53' 18.667" W	---
1.2	Sounding	8.55 m	055° 52' 04.994" N	158° 53' 12.162" W	---
1.3	Rock	-0.47 m	055° 51' 29.862" N	158° 47' 55.371" W	---
1.4	Rock	-2.31 m	055° 51' 47.404" N	158° 48' 23.372" W	---
1.5	Rock	-0.62 m	055° 52' 05.723" N	158° 49' 01.406" W	---
1.6	Rock	-1.97 m	055° 52' 00.977" N	158° 48' 51.476" W	---
1.7	Sounding	0.08 m	055° 51' 38.989" N	158° 49' 26.596" W	---
1.8	Rock	-1.51 m	055° 50' 01.187" N	158° 51' 40.961" W	---
1.9	Rock	-1.88 m	055° 49' 46.424" N	158° 51' 49.186" W	---
1.10	Rock	11.40 m	055° 50' 48.540" N	158° 48' 07.842" W	---
1.11	Rock	5.89 m	055° 51' 25.273" N	158° 48' 13.239" W	---

1.12	Rock	10.99 m	055° 51' 52.394" N	158° 48' 36.450" W	---
1.13	Rock	-0.28 m	055° 48' 34.629" N	158° 53' 18.490" W	---
1.14	Rock	-1.28 m	055° 49' 45.413" N	158° 53' 59.149" W	---
1.15	Rock	-1.27 m	055° 49' 49.511" N	158° 53' 59.068" W	---
1.16	Sounding	10000.39 m	055° 51' 39.138" N	158° 49' 26.672" W	---
1.17	Rock	-0.76 m	000° 00' 00.005" N	000° 00' 00.029" E	---
2.1	Sounding	-15.15 m	055° 50' 57.307" N	158° 53' 00.230" W	---
2.2	Rock	-10.15 m	055° 50' 55.974" N	158° 53' 02.038" W	---
2.3	Rock	-2.67 m	055° 50' 55.284" N	158° 53' 04.210" W	---
2.4	Rock	-1.23 m	055° 50' 39.900" N	158° 53' 18.231" W	---
2.5	Rock	-0.44 m	055° 50' 41.168" N	158° 53' 14.329" W	---
2.6	Rock	-0.72 m	055° 51' 11.370" N	158° 52' 38.374" W	---
2.7	Rock	-1.53 m	055° 51' 13.144" N	158° 52' 36.328" W	---
2.8	Rock	0.15 m	055° 51' 08.376" N	158° 52' 40.855" W	---
2.9	Rock	-1.12 m	055° 51' 47.796" N	158° 53' 21.768" W	---
2.10	Rock	2.39 m	055° 50' 41.768" N	158° 53' 13.836" W	---
2.11	Rock	0.28 m	055° 50' 42.227" N	158° 53' 12.372" W	---
2.12	Rock	7.56 m	055° 51' 42.536" N	158° 53' 13.602" W	---
2.13	Rock	6.55 m	055° 51' 35.696" N	158° 52' 56.934" W	---
2.14	Rock	5.05 m	055° 51' 20.768" N	158° 52' 38.454" W	---
2.15	Rock	10.36 m	055° 53' 18.476" N	158° 49' 14.546" W	---
2.16	Rock	2.11 m	055° 53' 23.034" N	158° 49' 37.799" W	---
2.17	Rock	0.67 m	055° 53' 23.240" N	158° 49' 25.992" W	---
2.18	Rock	0.22 m	055° 51' 51.972" N	158° 48' 33.678" W	---
2.19	Rock	-0.81 m	055° 51' 29.405" N	158° 50' 07.557" W	---
2.20	Rock	0.41 m	055° 51' 33.988" N	158° 49' 48.978" W	---
2.21	Rock	1.22 m	055° 50' 45.442" N	158° 51' 34.513" W	---
2.22	Rock	-0.00 m	055° 50' 01.595" N	158° 51' 39.580" W	---
2.23	Rock	-1.51 m	055° 50' 08.570" N	158° 51' 46.735" W	---
2.24	Rock	0.07 m	055° 50' 28.034" N	158° 51' 51.397" W	---
2.25	Rock	0.17 m	055° 50' 29.171" N	158° 51' 51.132" W	---
2.26	Rock	-0.14 m	055° 50' 33.065" N	158° 51' 46.419" W	---
2.27	Rock	-0.91 m	055° 49' 29.729" N	158° 52' 10.542" W	---
2.28	Rock	-0.05 m	055° 49' 15.505" N	158° 52' 35.348" W	---
2.29	Rock	-21.01 m	055° 48' 59.479" N	158° 50' 48.067" W	---
2.30	Rock	12.35 m	055° 50' 45.335" N	158° 48' 03.367" W	---

2.31	Sounding	12.73 m	055° 52' 00.637" N	158° 48' 53.266" W	---
2.32	Rock	-0.93 m	055° 49' 10.003" N	158° 53' 48.072" W	---
2.33	Sounding	-2.18 m	055° 47' 21.311" N	158° 53' 14.870" W	---
2.34	Rock	-8.65 m	055° 47' 16.594" N	158° 53' 10.289" W	---
2.35	Rock	-1.94 m	055° 46' 31.224" N	158° 53' 52.300" W	---
2.36	Rock	0.20 m	055° 48' 26.060" N	158° 51' 29.486" W	---
2.37	Rock	-0.13 m	055° 48' 29.142" N	158° 51' 05.398" W	---
2.38	Rock	-0.84 m	055° 48' 28.047" N	158° 51' 09.299" W	---
2.39	Rock	-2.36 m	055° 48' 33.300" N	158° 50' 37.014" W	---
2.40	Rock	0.10 m	055° 48' 53.608" N	158° 50' 23.567" W	---
2.41	GP	[None]	055° 51' 14.826" N	158° 52' 36.471" W	---
2.42	Rock	[None]	055° 51' 00.348" N	158° 52' 57.078" W	---
2.43	GP	[None]	055° 48' 34.871" N	158° 50' 21.911" W	---
2.44	Rock	6.16 m	055° 51' 13.688" N	158° 50' 50.816" W	---
2.45	Rock	11.29 m	055° 48' 25.561" N	158° 51' 54.668" W	---
2.46	Rock	-0.91 m	055° 48' 31.784" N	158° 50' 20.962" W	---
2.47	Rock	0.50 m	055° 51' 33.933" N	158° 49' 48.862" W	---
2.48	Rock	4.52 m	055° 48' 23.102" N	158° 51' 21.425" W	---
2.49	Rock	4.35 m	055° 50' 49.154" N	158° 51' 18.902" W	---
2.50	Rock	3.98 m	055° 50' 56.350" N	158° 51' 12.026" W	---
2.51	Rock	6.86 m	055° 46' 37.159" N	158° 53' 53.741" W	---
2.52	Rock	8.34 m	055° 46' 49.486" N	158° 53' 37.889" W	---
2.53	Rock	2.13 m	055° 46' 54.996" N	158° 53' 37.782" W	---
2.54	Rock	6.93 m	055° 46' 51.714" N	158° 53' 45.997" W	---
2.55	Rock	1.63 m	055° 51' 24.914" N	158° 50' 23.613" W	---
2.56	Rock	3.37 m	055° 51' 24.913" N	158° 50' 23.600" W	---

1 - Charted Features

1.1) Profile/Beam - 4/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 50' 39.278" N, 158° 53' 18.667" W
Least Depth: -1.73 m
Timestamp: 2005-213.16:53:15.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 4/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) ISLET IS RK
 QUA: GPSmode=2, SVs=5, HDOP=1.60

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 0fm 5ft (16556_1)
 -1.8m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - -1.728 m
 WATLEV - 4:covers and uncovers

Office Notes

Replace Chd (16561) rock with field verified rock located at 55-50-39.900N, 158-53-05.842W with least depth -1.23m. See DP 1103_213_20.

Feature Images



Figure 1.1.1

1.2) Profile/Beam - 6/1 from h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 52' 04.994" N, 158° 53' 12.162" W
Least Depth: 8.55 m
Timestamp: 2005-213.18:18:04.000 (08/01/2005)
DP Dataset: h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 6/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) ISLET DISPROVAL
 QUA: GPSmode=2, SVs=8, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_echosounder_dp/2005-213/dp_1103_213	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)
Attributes: INFORM - CHD (16561) ISLET DISPROVAL

Office Notes

Replace Chd (16561) islet with LIDAR islet located at 55-52-05.218N, 158-53-09.406W.

1.3) Profile/Beam - 1/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 51' 29.862" N, 158° 47' 55.371" W
Least Depth: -0.47 m
Timestamp: 2005-217.16:08:22.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 1/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) RK VERIFIED
 QUA: GPSmode=2, SVs=8, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -.5m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - CHD (16561) RK VERIFIED
 VALSOU - -0.470 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

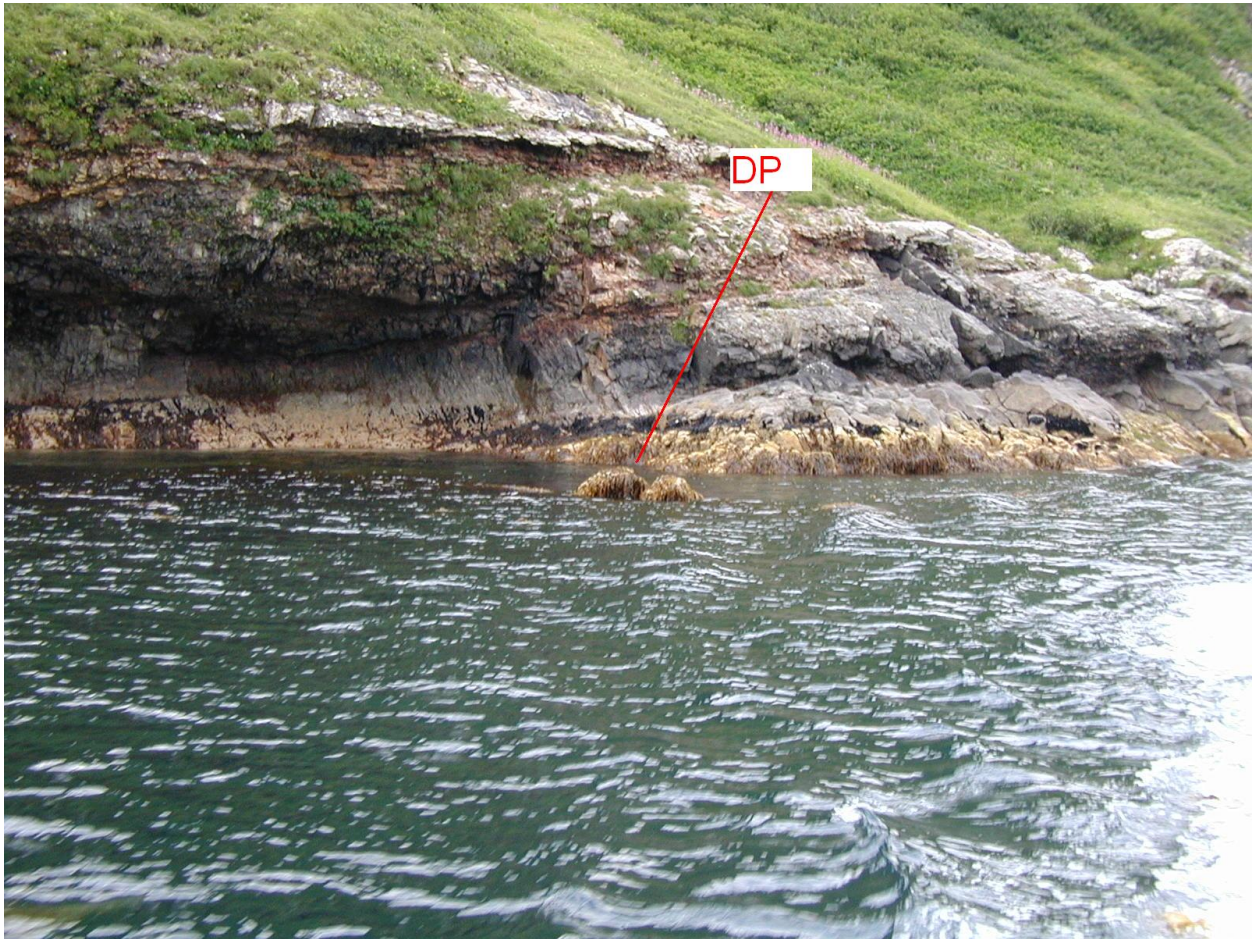


Figure 1.3.1

1.4) Profile/Beam - 2/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 51' 47.404" N, 158° 48' 23.372" W
Least Depth: -2.31 m
Timestamp: 2005-217.16:18:12.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 2/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) ISLET IS RK
 QUA: GPSmode=2, SVs=7, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -2.3m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - CHD (16561) ISLET IS RK
 VALSOU - -2.306 m
 WATLEV - 4:covers and uncovers

Office Notes

Do not chart rock. Chart adjacent field verified rock at 55-51-47.322N, 158-48-22.143W with least depth -1.84m. See DP 1101_233_12.

Feature Images

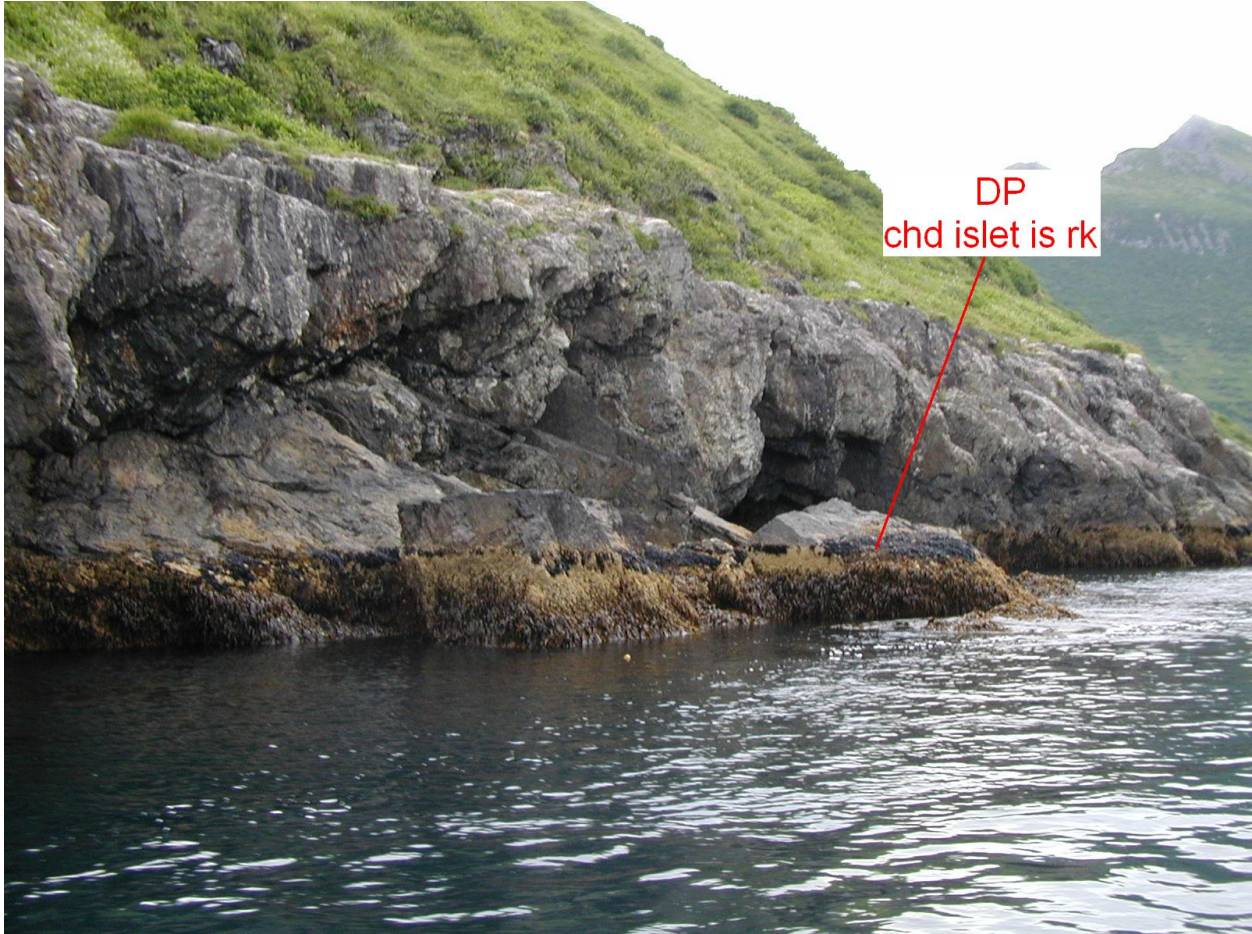


Figure 1.4.1

1.5) Profile/Beam - 4/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 52' 05.723" N, 158° 49' 01.406" W
Least Depth: -0.62 m
Timestamp: 2005-217.16:33:15.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 4/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR/ CHD (16561) RK VERIFIED
 QUA: GPSmode=2, SVs=5, HDOP=1.80

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	4/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	16	9.76	274.0	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -.6m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - LIDAR/ CHD (16561) RK VERIFIED
 VALSOU - -0.619 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

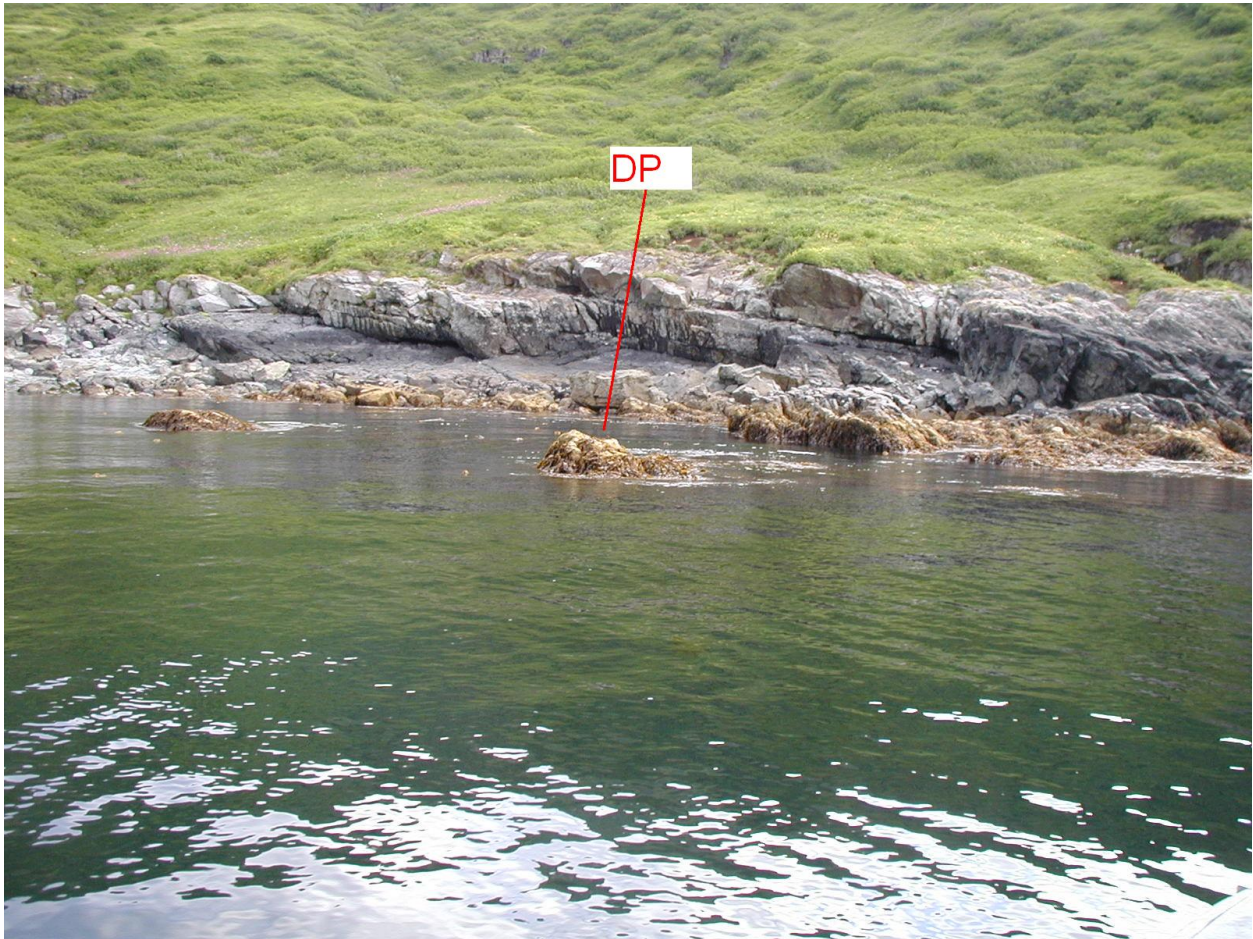


Figure 1.5.1

1.6) Profile/Beam - 5/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 52' 00.977" N, 158° 48' 51.476" W
Least Depth: -1.97 m
Timestamp: 2005-217.16:43:45.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 5/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) RK VERIFIED
 QUA: GPSmode=2, SVs=8, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -2.0m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - CHD (16561) RK VERIFIED
 VALSOU - -1.965 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

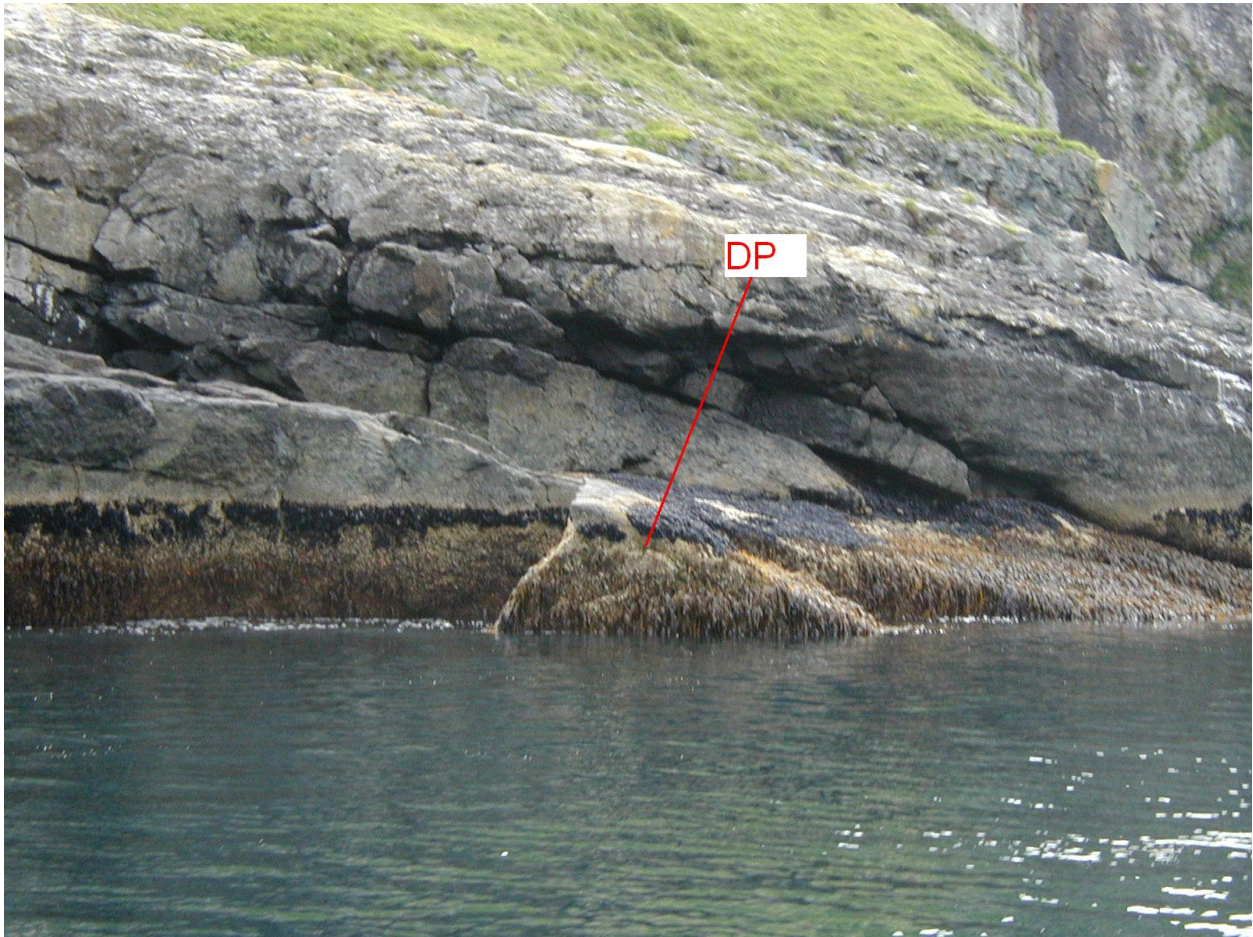


Figure 1.6.1

1.7) Profile/Beam - 6/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 51' 38.989" N, 158° 49' 26.596" W
Least Depth: 0.08 m
Timestamp: 2005-217.16:55:28.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 6/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) ISLET DIPROVAL

OFFICE NOTES: On edge of kelp area. Unable to disprove.

QUA: GPSmode=2, SVs=6, HDOP=1.70

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)

Attributes: INFORM - Retain Chd Islet

Office Notes

Charted feature is rock. Retain rock as charted.

Feature Images

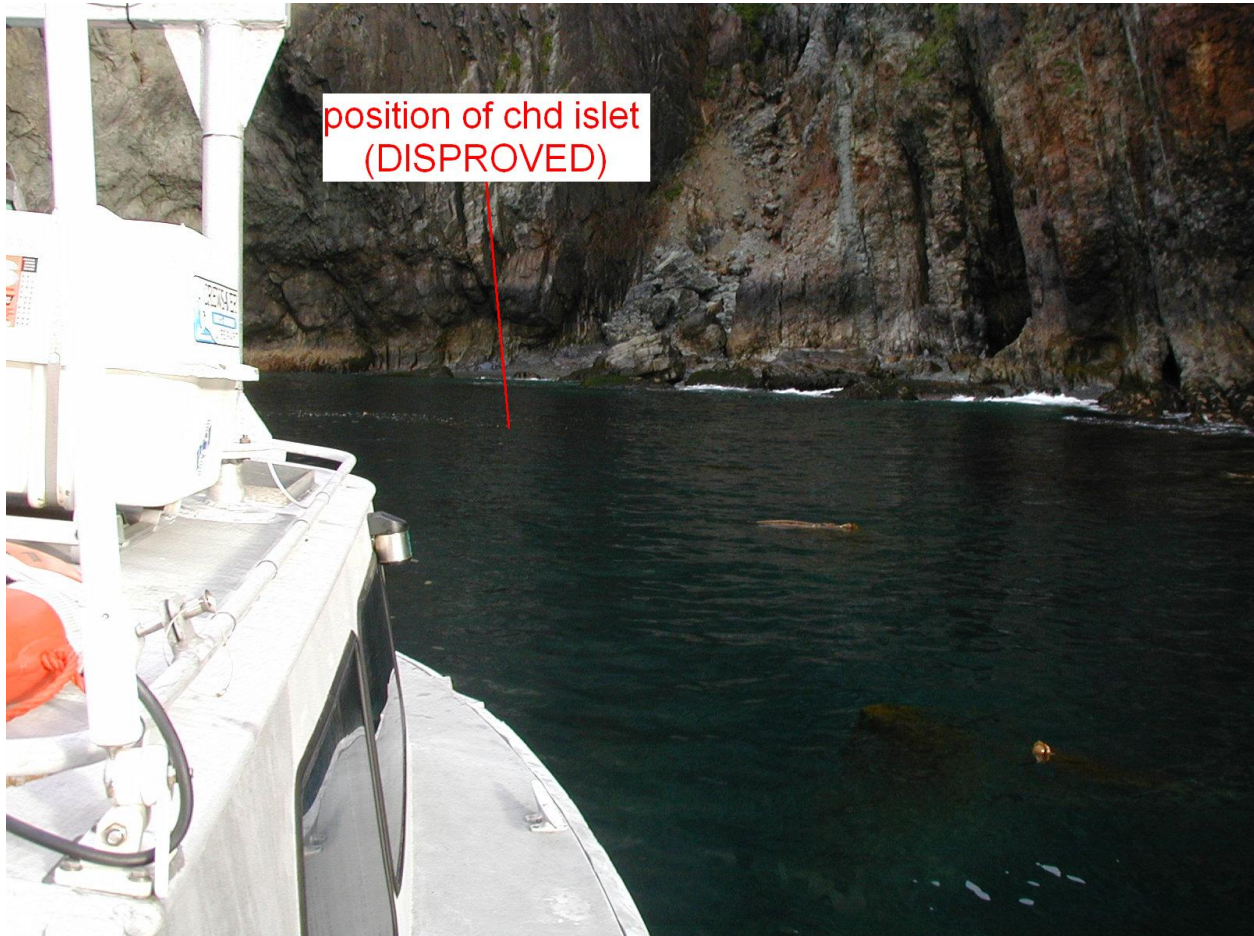


Figure 1.7.1

1.8) Profile/Beam - 11/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 01.187" N, 158° 51' 40.961" W
Least Depth: -1.51 m
Timestamp: 2005-217.18:16:48.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 11/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) ISLET IS RK
 QUA: GPSmode=2, SVs=6, HDOP=1.90

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	11/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -1.5m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - CHD (16561) ISLET IS RK
 VALSOU - -1.508 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

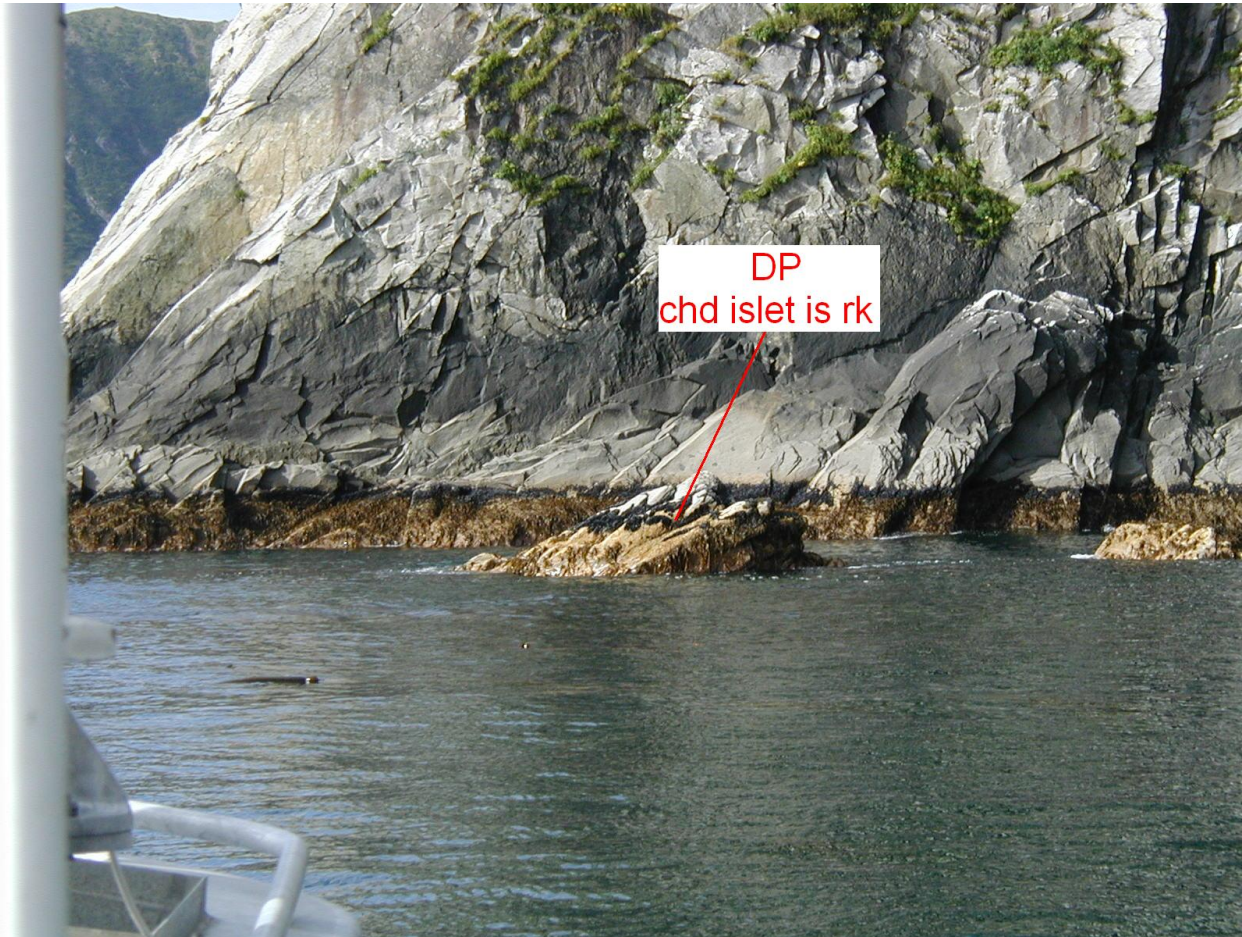


Figure 1.8.1

1.9) Profile/Beam - 16/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 49' 46.424" N, 158° 51' 49.186" W
Least Depth: -1.88 m
Timestamp: 2005-217.18:44:57.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 16/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) ISLET IS RK
 QUA: GPSmode=2, SVs=6, HDOP=2.50

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	16/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -1.9m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - CHD (16561) ISLET IS RK
 VALSOU - -1.880 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 1.9.1

1.10) Profile/Beam - 1/1 from h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 48.540" N, 158° 48' 07.842" W
Least Depth: 11.40 m
Timestamp: 2005-217.15:42:53.000 (08/05/2005)
DP Dataset: h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 1/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) RK DISPROVAL

QUA: GPSmode=2, SVs=7, HDOP=1.40

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_echosounder_dp/2005-217/dp_1101_217	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

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

Attributes: VALSOU - 11.396 m

Office Notes

There is no charted rock at this position. CFF Rock disproved with 100% MBES. Do not chart CFF rock.

Feature Images

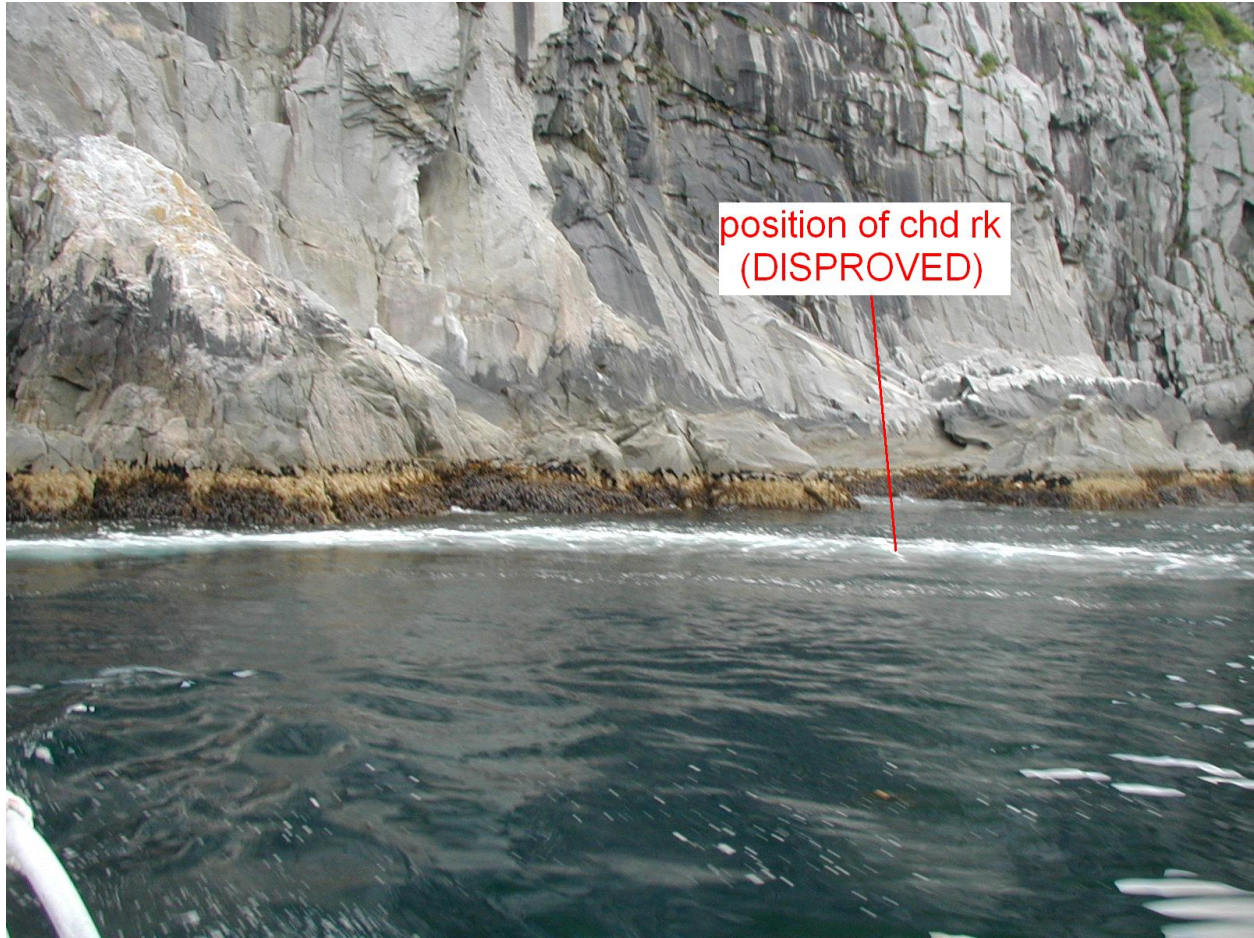


Figure 1.10.1

1.11) Profile/Beam - 3/1 from h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 51' 25.273" N, 158° 48' 13.239" W
Least Depth: 5.89 m
Timestamp: 2005-217.16:02:02.000 (08/05/2005)
DP Dataset: h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 3/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) RK DISPROVAL

QUA: GPSmode=2, SVs=7, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_echosounder_dp/2005-217/dp_1101_217	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

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

Attributes: VALSOU - 5.894 m

Office Notes

Insufficient information to disprove. Retain Chd (16561) rock.

1.12) Profile/Beam - 4/1 from h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 51' 52.394" N, 158° 48' 36.450" W
Least Depth: 10.99 m
Timestamp: 2005-217.16:26:04.000 (08/05/2005)
DP Dataset: h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 4/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR/ CHD (16561) RK DISPROVAL
 QUA: GPSmode=2, SVs=6, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_echosounder_dp/2005-217/dp_1101_217	4/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	18	25.00	201.5	Secondary (grouped)

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 10.990 m

Office Notes

No LIDAR feature at this position. Chart adjacent field verified CFF rock at 55-51-51.972N, 158-48-33.678W with least depth 0.22m.

1.13) Profile/Beam - 5/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 48' 34.629" N, 158° 53' 18.490" W
Least Depth: -0.28 m
Timestamp: 2005-217.17:47:40.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 5/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR/ CHD (16561) RK VERIFIED
 QUA: GPSmode=2, SVs=7, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	5/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	9	62.35	283.7	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 0fm 1ft (16556_1)
 -.3m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - -0.280 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 1.13.1

1.14) Profile/Beam - 1/1 from h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233

Survey Summary

Survey Position: 055° 49' 45.413" N, 158° 53' 59.149" W
Least Depth: -1.28 m
Timestamp: 2005-233.17:07:36.000 (08/21/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233
Profile/Beam: 1/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) islet is rk

QUA: GPSmode=2, SVs=7, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-233/dp_1101_233	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 4ft (16556_1)

-1.3m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - CHD islet is rk

VALSOU - -1.285 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 1.14.1

1.15) Profile/Beam - 2/1 from h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233

Survey Summary

Survey Position: 055° 49' 49.511" N, 158° 53' 59.068" W
Least Depth: -1.27 m
Timestamp: 2005-233.17:10:36.000 (08/21/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233
Profile/Beam: 2/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) islet is rk

QUA: GPSmode=2, SVs=9, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-233/dp_1101_233	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 4ft (16556_1)

-1.3m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - CHD islet is rk

VALSOU - -1.271 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 1.15.1

1.16) Profile/Beam - 5/1 from h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233

Survey Summary

Survey Position: 055° 51' 39.138" N, 158° 49' 26.672" W
Least Depth: 10000.39 m
Timestamp: 2005-233.18:29:34.000 (08/21/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233
Profile/Beam: 5/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CHD (16561) islet disproval
 QUA: GPSmode=2, SVs=6, HDOP=1.90

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-233/dp_1101_233	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)
Attributes: INFORM - CHD (16561) islet disproval

Office Notes

Charted islet is rock. Retain Chd (16561) rock.

Feature Images



Figure 1.16.1

1.17) Profile/Beam - 1/1 from h11479 / 1016_reson8125 / 2005-232 / dp_1016_232

Survey Summary

Survey Position: 000° 00' 00.005" N, 000° 00' 00.029" E
Least Depth: -0.76 m
Timestamp: 2005-232.20:09:50.000 (08/20/2005)
DP Dataset: h11479 / 1016_reson8125 / 2005-232 / dp_1016_232
Profile/Beam: 1/1
Charts Affected: [no CHAPP data available]

Remarks:

CHD (16561) ISLET IS RK
 QUA: GPSmode=2, SVs=7, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1016_reson8125/2005-232/dp_1016_232	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - -0.755 m
 WATLEV - 4:covers and uncovers

Office Notes

Position incorrect due to lost navigation on HIPS DP line. Chart field verified rock at 55-50-19.025N, 158-53-37.190W.

Feature Images



Figure 1.17.1

2 - New Features

2.1) Profile/Beam - 1/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 50' 57.307" N, 158° 53' 00.230" W
Least Depth: -15.15 m
Timestamp: 2005-213.16:33:36.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 1/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK IS ISLET

QUA: GPSmode=2, SVs=6, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-8 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-8fm 1ft (16556_1)

-15.2m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -15.148 m

WATLEV - 2:always dry

Office Notes

Chart field verified Islet.

Feature Images



Figure 2.1.1

2.2) Profile/Beam - 2/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 50' 55.974" N, 158° 53' 02.038" W
Least Depth: -10.15 m
Timestamp: 2005-213.16:34:49.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 2/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF ISLET IS RK

QUA: GPSmode=2, SVs=7, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-5 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-5fm 3ft (16556_1)

-10.2m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -10.154 m

Office Notes

Observed depth indicates feature is islet. Chart field verified islet.

Feature Images



Figure 2.2.1

2.3) Profile/Beam - 3/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 50' 55.284" N, 158° 53' 04.210" W
Least Depth: -2.67 m
Timestamp: 2005-213.16:38:09.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 3/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK
 QUA: GPSmode=2, SVs=7, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -1fm 3ft (16556_1)
 -2.7m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - -2.671 m
 WATLEV - 4:covers and uncovers

Office Notes

Observed depth indicates feature is islet. Chart field verified islet.

Feature Images



Figure 2.3.1

2.4) Profile/Beam - 5/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 50' 39.900" N, 158° 53' 18.231" W
Least Depth: -1.23 m
Timestamp: 2005-213.16:54:47.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 5/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=5, HDOP=1.60

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 4ft (16556_1)

-1.3m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -1.233 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.4.1

2.5) Profile/Beam - 6/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 50' 41.168" N, 158° 53' 14.329" W
Least Depth: -0.44 m
Timestamp: 2005-213.16:56:45.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 6/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=5, HDOP=1.60

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 1ft (16556_1)

-.5m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -0.439 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.5.1

2.6) Profile/Beam - 7/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 51' 11.370" N, 158° 52' 38.374" W
Least Depth: -0.72 m
Timestamp: 2005-213.17:47:46.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 7/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

QUA: GPSmode=2, SVs=7, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	7/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	6	38.11	199.9	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 2ft (16556_1)

-.7m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -0.716 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.6.1

2.7) Profile/Beam - 8/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 51' 13.144" N, 158° 52' 36.328" W
Least Depth: -1.53 m
Timestamp: 2005-213.17:49:54.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 8/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=7, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	8/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 5ft (16556_1)

-1.6m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -1.528 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.7.1

2.8) Profile/Beam - 9/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 51' 08.376" N, 158° 52' 40.855" W
Least Depth: 0.15 m
Timestamp: 2005-213.17:54:08.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 9/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=7, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	9/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 0ft (16556_1)

.1m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - NEW RK
 VALSOU - 0.147 m
 WATLEV - 3:always under water/submerged

Office Notes

Chart field verified rock.

2.9) Profile/Beam - 10/1 from h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 51' 47.796" N, 158° 53' 21.768" W
Least Depth: -1.12 m
Timestamp: 2005-213.18:03:47.000 (08/01/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 10/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

QUA: GPSmode=2, SVs=7, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-213/dp_1103_213	10/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	31	37.54	062.6	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 3ft (16556_1)

-1.1m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -1.115 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.9.1

2.10) Profile/Beam - 1/1 from h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 50' 41.768" N, 158° 53' 13.836" W
Least Depth: 2.39 m
Timestamp: 2005-213.16:57:51.000 (08/01/2005)
DP Dataset: h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 1/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=5, HDOP=1.60

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_echosounder_dp/2005-213/dp_1103_213	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

1fm 2ft (16556_1)

2.4m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - NEW RK
 VALSOU - 2.387 m
 WATLEV - 3:always under water/submerged

Office Notes

Do not chart submerged rock. Chart field verified rock awash at 55-50-41.168N, 158-53-14.329W with least depth -0.440m. See DP 1103_213_21.

Feature Images

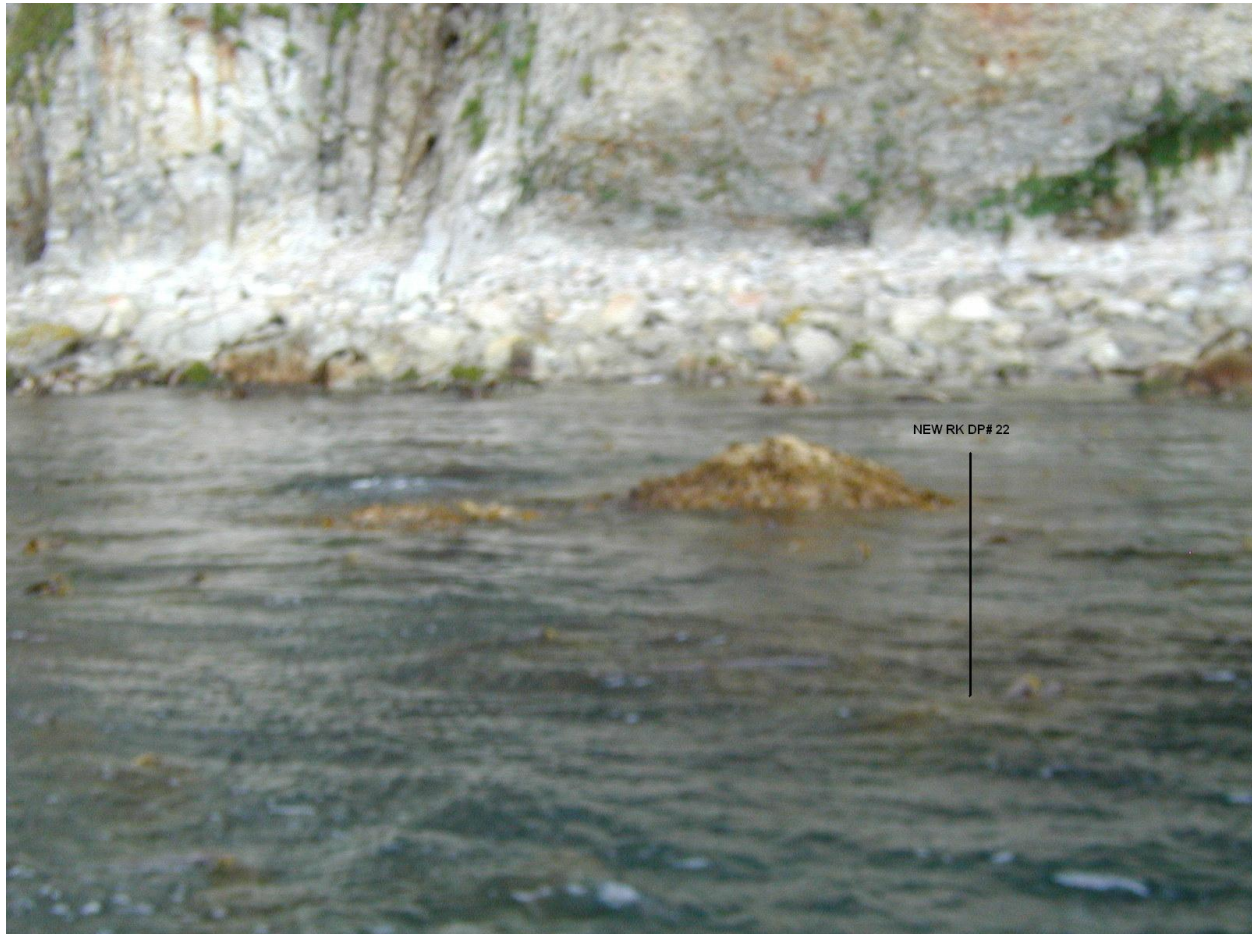


Figure 2.10.1

2.11) Profile/Beam - 2/1 from h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 50' 42.227" N, 158° 53' 12.372" W
Least Depth: 0.28 m
Timestamp: 2005-213.16:59:55.000 (08/01/2005)
DP Dataset: h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 2/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=5, HDOP=1.60

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_echosounder_dp/2005-213/dp_1103_213	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

0fm 1ft (16556_1)

.3m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - NEW RK

VALSOU - 0.278 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.11.1

2.12) Profile/Beam - 3/1 from h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 51' 42.536" N, 158° 53' 13.602" W
Least Depth: 7.56 m
Timestamp: 2005-213.17:26:57.000 (08/01/2005)
DP Dataset: h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 3/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DISPROVAL W/ 100% MBES
 QUA: GPSmode=2, SVs=7, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_echosounder_dp/2005-213/dp_1103_213	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 7.556 m

Office Notes

CFF rock disproved by 100% MBES. Do not chart CFF rock.

2.13) Profile/Beam - 4/1 from h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 51' 35.696" N, 158° 52' 56.934" W
Least Depth: 6.55 m
Timestamp: 2005-213.17:33:01.000 (08/01/2005)
DP Dataset: h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 4/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DISPROVAL W/ 100% MBES
 QUA: GPSmode=2, SVs=7, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_echosounder_dp/2005-213/dp_1103_213	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 6.549 m

Office Notes

CFF rock disproved by 100% MBES. Do not chart CFF rock.

2.14) Profile/Beam - 5/1 from h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213

Survey Summary

Survey Position: 055° 51' 20.768" N, 158° 52' 38.454" W
Least Depth: 5.05 m
Timestamp: 2005-213.17:38:33.000 (08/01/2005)
DP Dataset: h11479 / 1103_echosounder_dp / 2005-213 / dp_1103_213
Profile/Beam: 5/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DISPROVAL W/ 100% MBES
 QUA: GPSmode=2, SVs=7, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_echosounder_dp/2005-213/dp_1103_213	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 5.053 m

Office Notes

CFF rock disproved by VBES star pattern. Do not chart CFF rock. Chart adjacent field verified rock awash at 55-51-21-285N, 158-52-38.207W with least depth 0.458m.

2.15) Profile/Beam - 1/1 from h11479 / 1101_echosounder_dp / 2005-214 / dp_1101_214

Survey Summary

Survey Position: 055° 53' 18.476" N, 158° 49' 14.546" W
Least Depth: 10.36 m
Timestamp: 2005-214.18:17:57.000 (08/02/2005)
DP Dataset: h11479 / 1101_echosounder_dp / 2005-214 / dp_1101_214
Profile/Beam: 1/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DISPROVAL
 W/ 100% MBES
 QUA: GPSmode=2, SVs=7, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_echosounder_dp/2005-214/dp_1101_214	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 10.360 m

Office Notes

CFF rock disproved with 100% MBES. Do not chart CFF rock.

2.16) Profile/Beam - 3/1 from h11479 / 1101_echosounder_dp / 2005-214 / dp_1101_214

Survey Summary

Survey Position: 055° 53' 23.034" N, 158° 49' 37.799" W
Least Depth: 2.11 m
Timestamp: 2005-214.18:37:44.000 (08/02/2005)
DP Dataset: h11479 / 1101_echosounder_dp / 2005-214 / dp_1101_214
Profile/Beam: 3/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DISPROVAL
 5MIN SEARCH IN AREA OF KELP, BOTTOM IN SIGHT (COBBLE AND SMALL BOLDERS), 30M SEARCH RADIUS
 QUA: GPSmode=2, SVs=8, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_echosounder_dp/2005-214/dp_1101_214	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 2.108 m

Office Notes

CFF rock disproved by visual search. Do not chart CFF rock.

2.17) Profile/Beam - 2/1 from h11479 / 1101_echosounder_dp / 2005-214 / dp_1101_214

Survey Summary

Survey Position: 055° 53' 23.240" N, 158° 49' 25.992" W
Least Depth: 0.67 m
Timestamp: 2005-214.18:28:13.000 (08/02/2005)
DP Dataset: h11479 / 1101_echosounder_dp / 2005-214 / dp_1101_214
Profile/Beam: 2/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DISPROVAL POSITION IN KELP 2M DEEP, BOTTOM IN SIGHT (COBBLE AND SMALL BOLDERS), NO RK SEEN 10M EITHER SIDE OF LAUNCH

QUA: GPSmode=2, SVs=8, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_echosounder_dp/2005-214/dp_1101_214	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 0.672 m

Office Notes

CFF rock disproved by visual search. Do not chart CFF rock.

2.18) Profile/Beam - 3/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 51' 51.972" N, 158° 48' 33.678" W
Least Depth: 0.22 m
Timestamp: 2005-217.16:22:48.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 3/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK VERIFIED
 QUA: GPSmode=2, SVs=6, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 .2m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - CFF RK VERIFIED
 VALSOU - 0.221 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

2.19) Profile/Beam - 7/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 51' 29.405" N, 158° 50' 07.557" W
Least Depth: -0.81 m
Timestamp: 2005-217.17:20:02.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 7/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK
 QUA: GPSmode=2, SVs=7, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -0.8m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - NEW RK
 VALSOU - -0.813 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

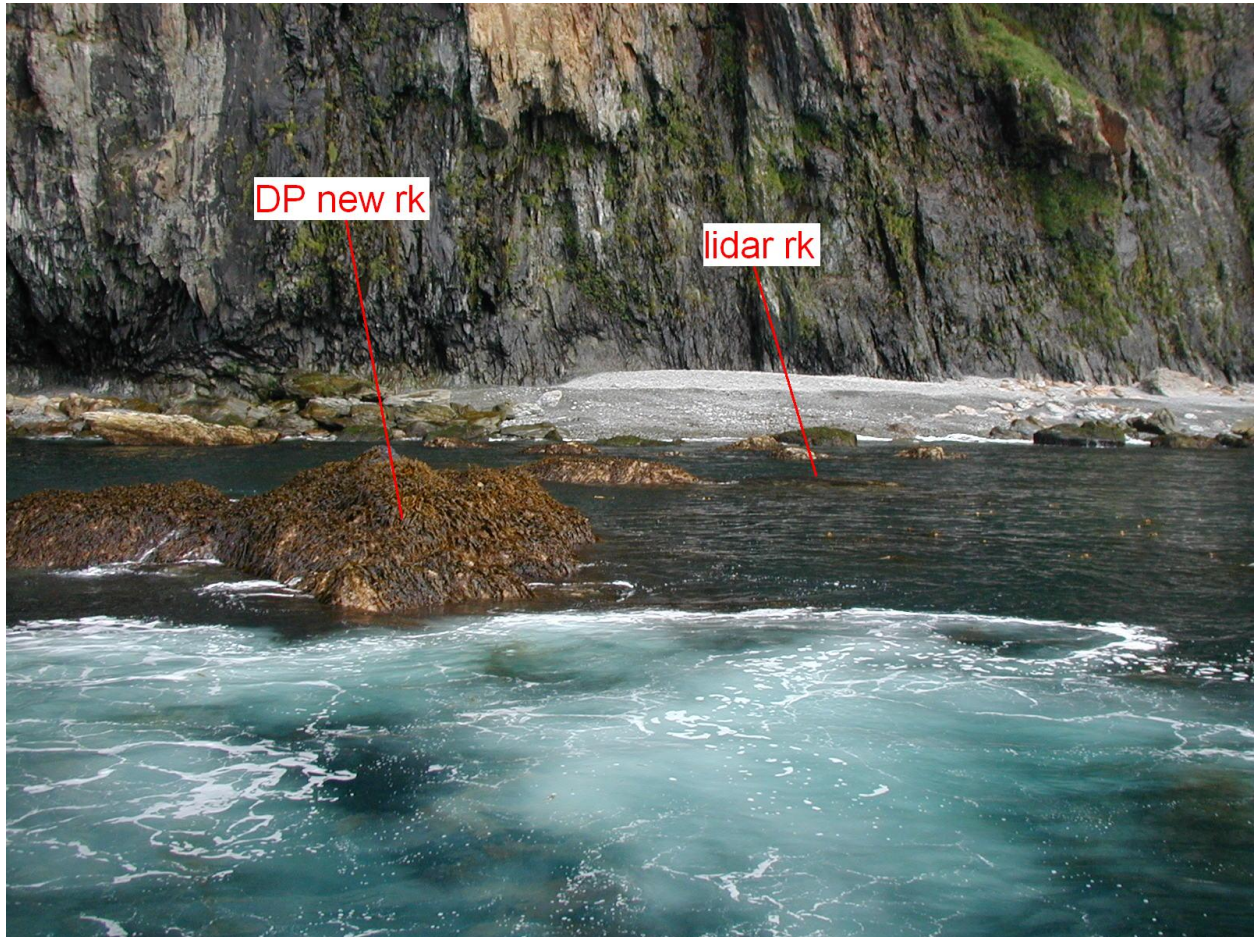


Figure 2.19.1

2.20) Profile/Beam - 8/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 51' 33.988" N, 158° 49' 48.978" W
Least Depth: 0.41 m
Timestamp: 2005-217.17:29:03.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 8/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

QUA: GPSmode=2, SVs=7, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	8/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	25	37.56	333.8	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

.4m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - LIDAR RK VERIFIED

VALSOU - 0.408 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

2.21) Profile/Beam - 9/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 45.442" N, 158° 51' 34.513" W
Least Depth: 1.22 m
Timestamp: 2005-217.17:53:43.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 9/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

QUA: GPSmode=2, SVs=7, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	9/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	23	153.69	272.8	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

1.2m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - LIDAR RK VERIFIED

VALSOU - 1.220 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

2.22) Profile/Beam - 10/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 01.595" N, 158° 51' 39.580" W
Least Depth: -0.00 m
Timestamp: 2005-217.18:13:06.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 10/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK
 QUA: GPSmode=2, SVs=7, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	10/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 .0m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - NEW RK
 VALSOU - -0.002 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

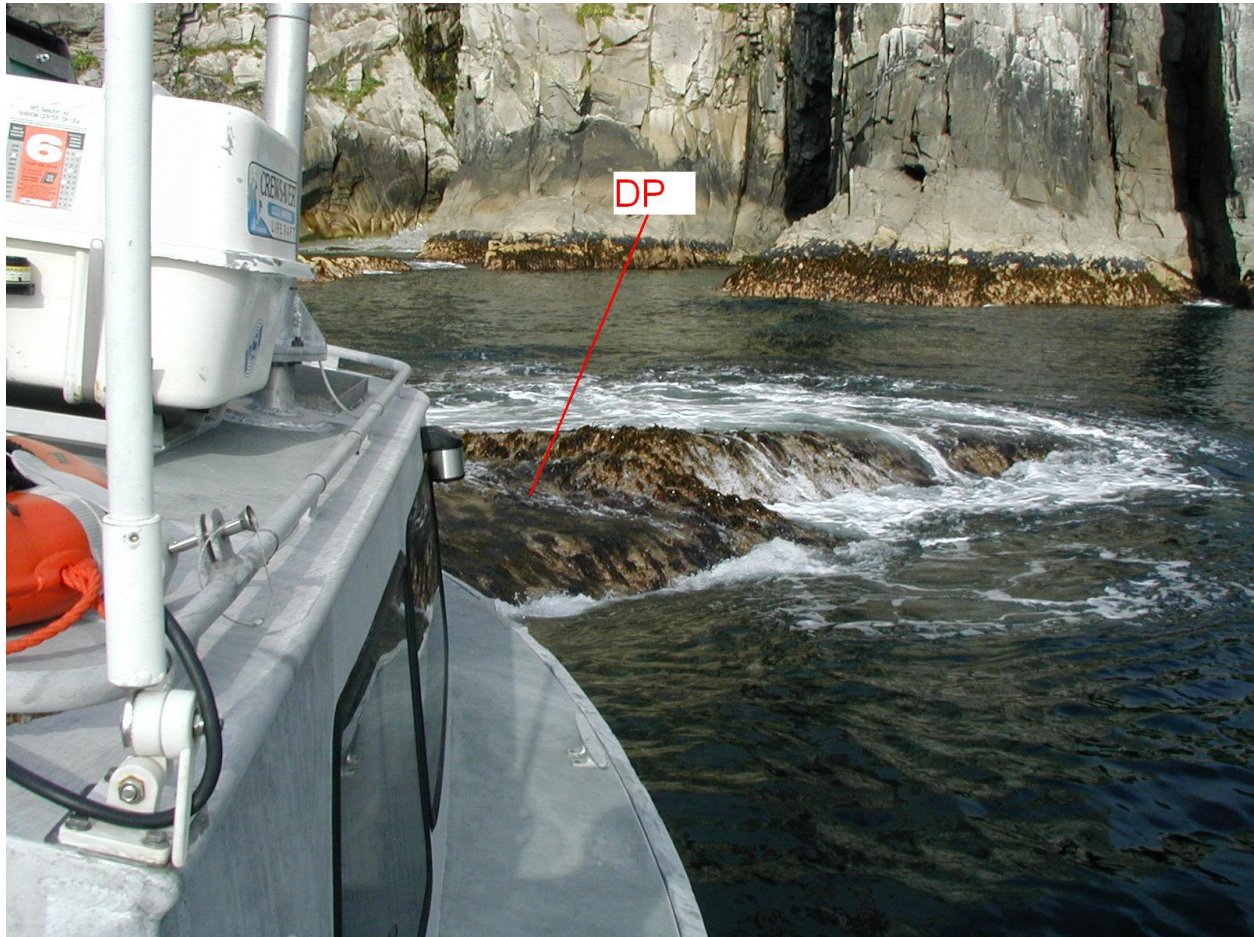


Figure 2.22.1

2.23) Profile/Beam - 12/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 08.570" N, 158° 51' 46.735" W
Least Depth: -1.51 m
Timestamp: 2005-217.18:20:23.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 12/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED
 INVESTIGAION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW47
 QUA: GPSmode=2, SVs=7, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	12/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -1.5m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - LIDAR RK VERIFIED INVESTIGAION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW47
 VALSOU - -1.514 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

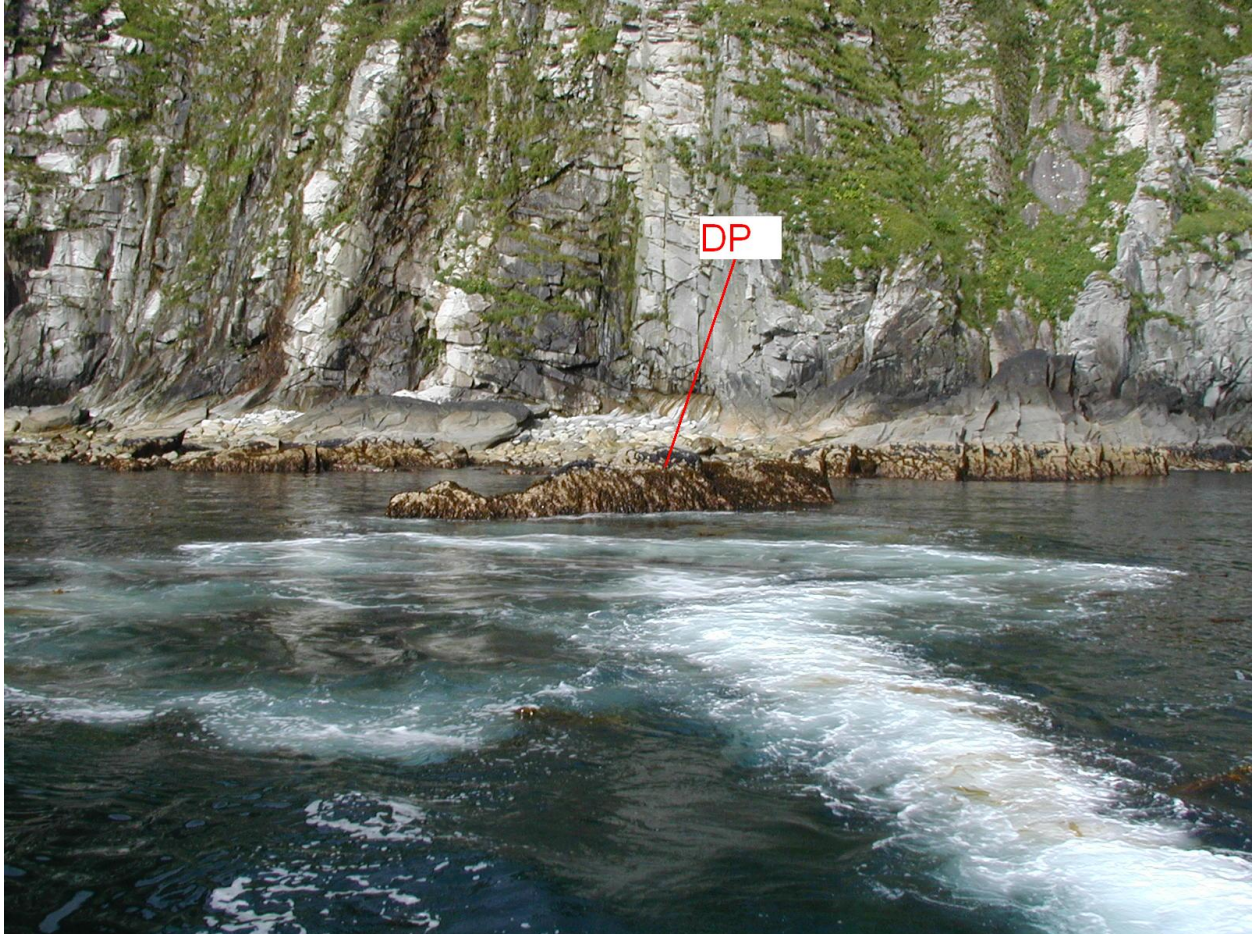


Figure 2.23.1

2.24) Profile/Beam - 13/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 28.034" N, 158° 51' 51.397" W
Least Depth: 0.07 m
Timestamp: 2005-217.18:27:15.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 13/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=6, HDOP=2.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	13/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

.0m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - NEW RK

VALSOU - 0.074 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

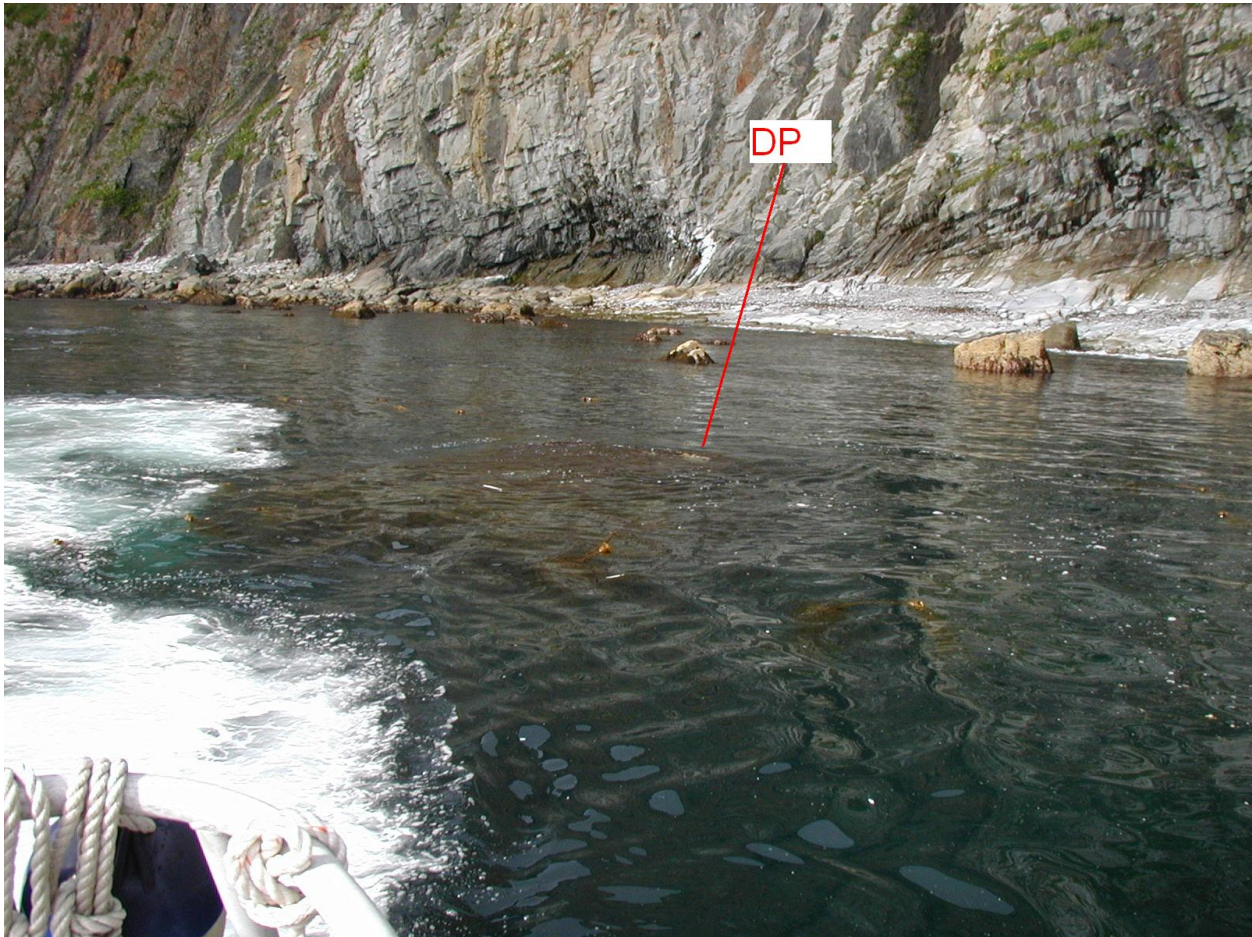


Figure 2.24.1

2.25) Profile/Beam - 14/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 29.171" N, 158° 51' 51.132" W
Least Depth: 0.17 m
Timestamp: 2005-217.18:28:15.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 14/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

INVESTIGATION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW71

QUA: GPSmode=2, SVs=6, HDOP=2.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	14/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

.1m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - LIDAR RK VERIFIED INVESTIGATION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW71
 VALSOU - 0.172 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.25.1

2.26) Profile/Beam - 15/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 33.065" N, 158° 51' 46.419" W
Least Depth: -0.14 m
Timestamp: 2005-217.18:32:10.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 15/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED
 INVESTIGAION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW48
 QUA: GPSmode=2, SVs=6, HDOP=2.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	15/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -.2m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - LIDAR RK VERIFIED INVESTIGAION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW48
 VALSOU - -0.138 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

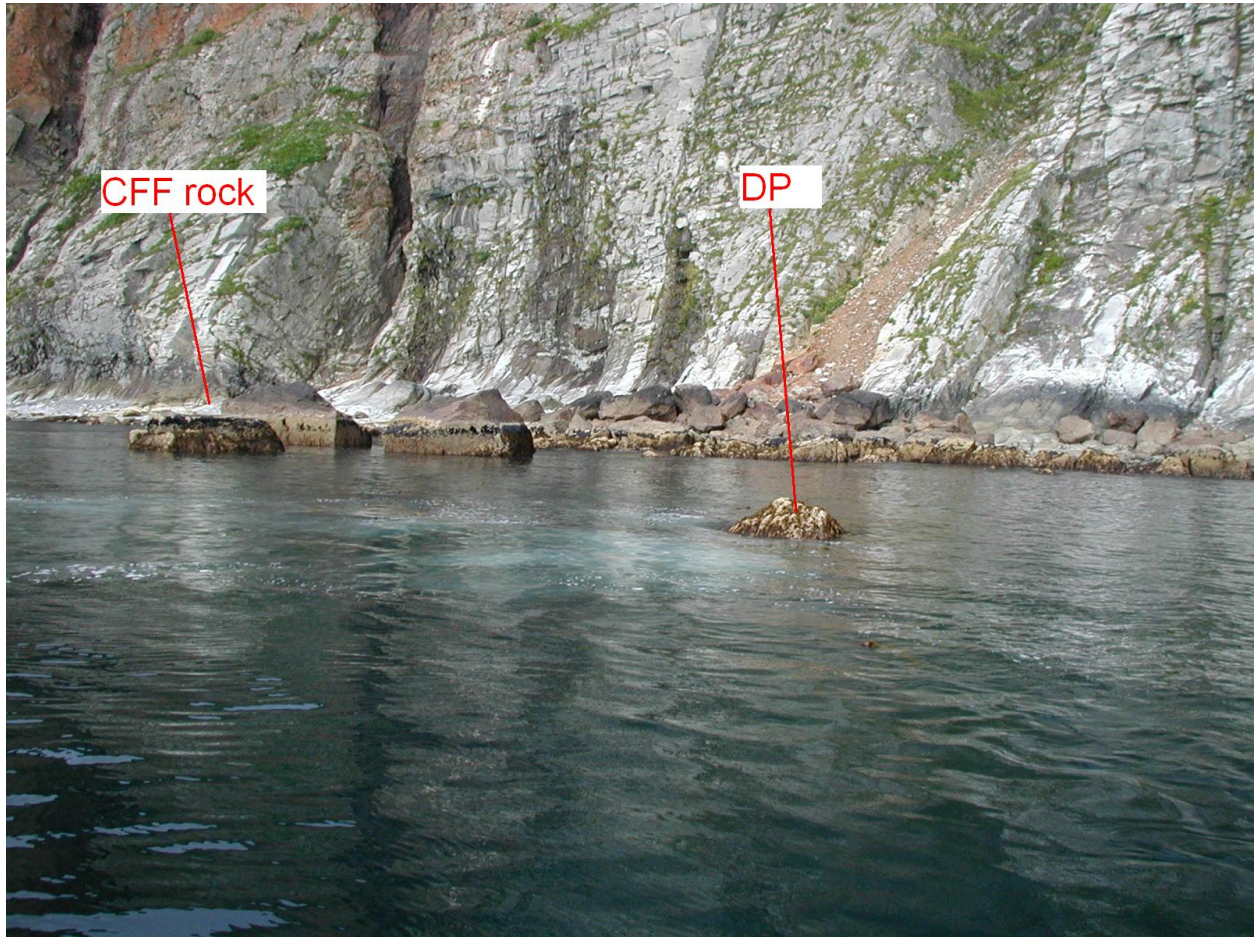


Figure 2.26.1

2.27) Profile/Beam - 17/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 49' 29.729" N, 158° 52' 10.542" W
Least Depth: -0.91 m
Timestamp: 2005-217.18:51:59.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 17/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

INVESTIGATION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW44

QUA: GPSmode=2, SVs=9, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	17/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-.9m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - LIDAR RK VERIFIED INVESTIGATION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW44
 VALSOU - -0.909 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

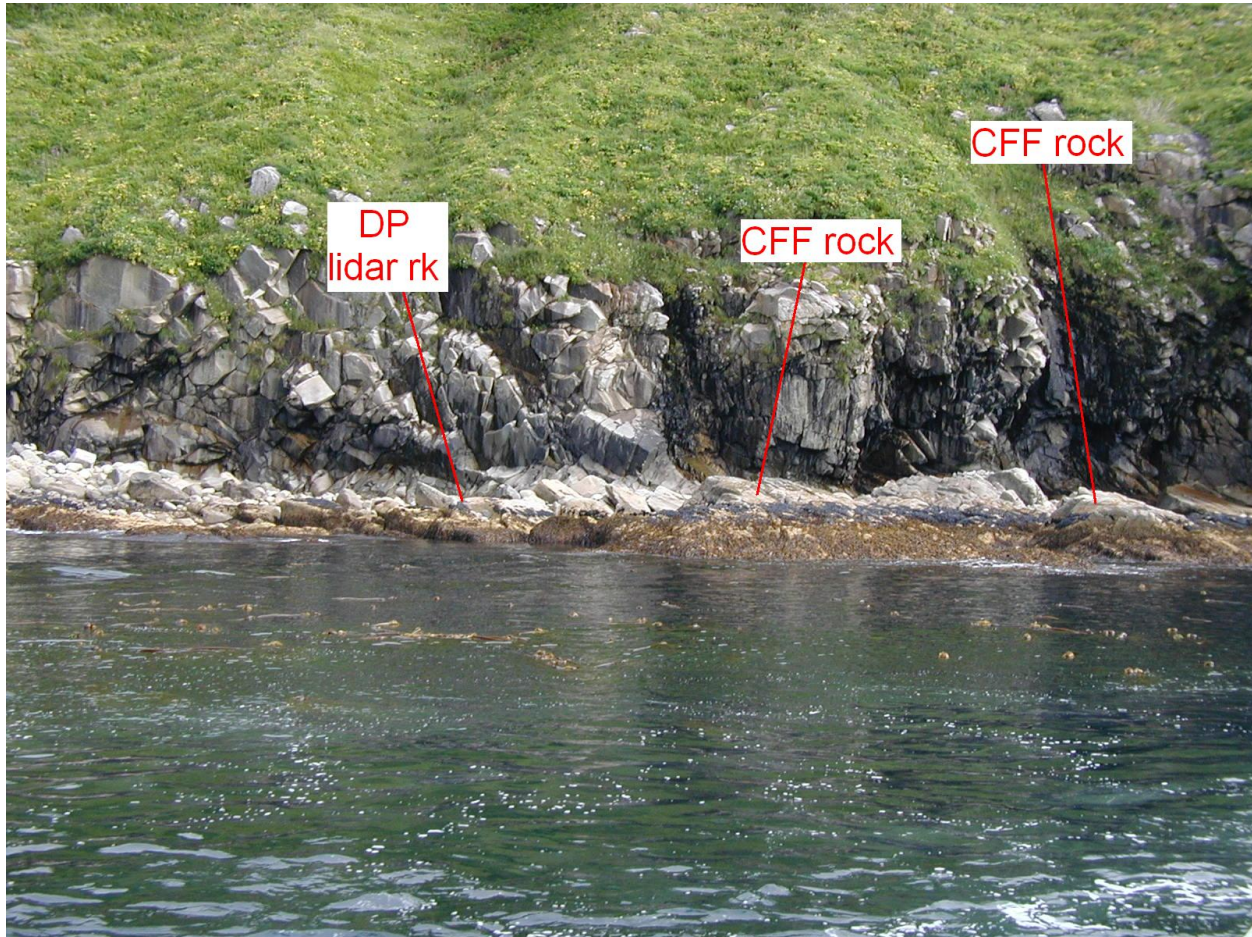


Figure 2.27.1

2.28) Profile/Beam - 18/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 49' 15.505" N, 158° 52' 35.348" W
Least Depth: -0.05 m
Timestamp: 2005-217.19:01:48.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 18/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK
 QUA: GPSmode=2, SVs=8, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	18/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -.1m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: INFORM - NEW RK
 VALSOU - -0.046 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.28.1

2.29) Profile/Beam - 19/1 from h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 48' 59.479" N, 158° 50' 48.067" W
Least Depth: -21.01 m
Timestamp: 2005-217.19:15:47.000 (08/05/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 19/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK IS ISLET

QUA: GPSmode=2, SVs=8, HDOP=1.50

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-217/dp_1101_217	19/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-11 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-21.0m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -21.009 m

Office Notes

Chart field verified islet.

Feature Images



Figure 2.29.1

2.30) Profile/Beam - 2/1 from h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 50' 45.335" N, 158° 48' 03.367" W
Least Depth: 12.35 m
Timestamp: 2005-217.15:49:08.000 (08/05/2005)
DP Dataset: h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 2/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK DISPROVAL

QUA: GPSmode=2, SVs=7, HDOP=1.40

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_echosounder_dp/2005-217/dp_1101_217	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

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

Attributes: VALSOU - 12.349 m

Office Notes

Chd (16561) rock disproved with 100% MBES. Remove Chd rock.

2.31) Profile/Beam - 5/1 from h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217

Survey Summary

Survey Position: 055° 52' 00.637" N, 158° 48' 53.266" W
Least Depth: 12.73 m
Timestamp: 2005-217.16:39:37.000 (08/05/2005)
DP Dataset: h11479 / 1101_echosounder_dp / 2005-217 / dp_1101_217
Profile/Beam: 5/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR POSITION DIPROVAL
 QUA: GPSmode=2, SVs=8, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_echosounder_dp/2005-217/dp_1101_217	5/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	17	31.02	185.2	Secondary (grouped)

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)
Attributes: INFORM - LIDAR POSITION DIPROVAL

Office Notes

No LIDAR features at this position. No action required.

2.32) Profile/Beam - 1/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 49' 10.003" N, 158° 53' 48.072" W
Least Depth: -0.93 m
Timestamp: 2005-217.15:33:34.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 1/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED
 QUA: GPSmode=2, SVs=8, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	1/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	8	6.99	193.9	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 0fm 3ft (16556_1)
 -1.0m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - -0.930 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.32.1

2.33) Profile/Beam - 2/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 47' 21.311" N, 158° 53' 14.870" W
Least Depth: -2.18 m
Timestamp: 2005-217.16:07:01.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 2/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK IS LDG

QUA: GPSmode=2, SVs=5, HDOP=2.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	2/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	19	51.09	143.3	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-1fm 1ft (16556_1)

-2.2m (500_1, 50_1)

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATSUR - 9:rock

Office Notes

This position is inshore of CFF MHW. Ledge not delineated by field. Chart new foul area delineated by field.

Feature Images



Figure 2.33.1

2.34) Profile/Beam - 3/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 47' 16.594" N, 158° 53' 10.289" W
Least Depth: -8.65 m
Timestamp: 2005-217.16:13:20.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 3/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

Top of Island Extends over the water line, making lidar rk appear inside MHW line

QUA: GPSmode=2, SVs=4, HDOP=2.80

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	3/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	20	76.11	170.8	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-4 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-4fm 4ft (16556_1)

-8.7m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -8.646 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified islet.

Feature Images



Figure 2.34.1

2.35) Profile/Beam - 4/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 46' 31.224" N, 158° 53' 52.300" W
Least Depth: -1.94 m
Timestamp: 2005-217.16:52:07.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 4/1
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

QUA: GPSmode=2, SVs=8, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	4/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	26	33.47	178.2	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-1fm 0ft (16556_1)

-2.0m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -1.936 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images

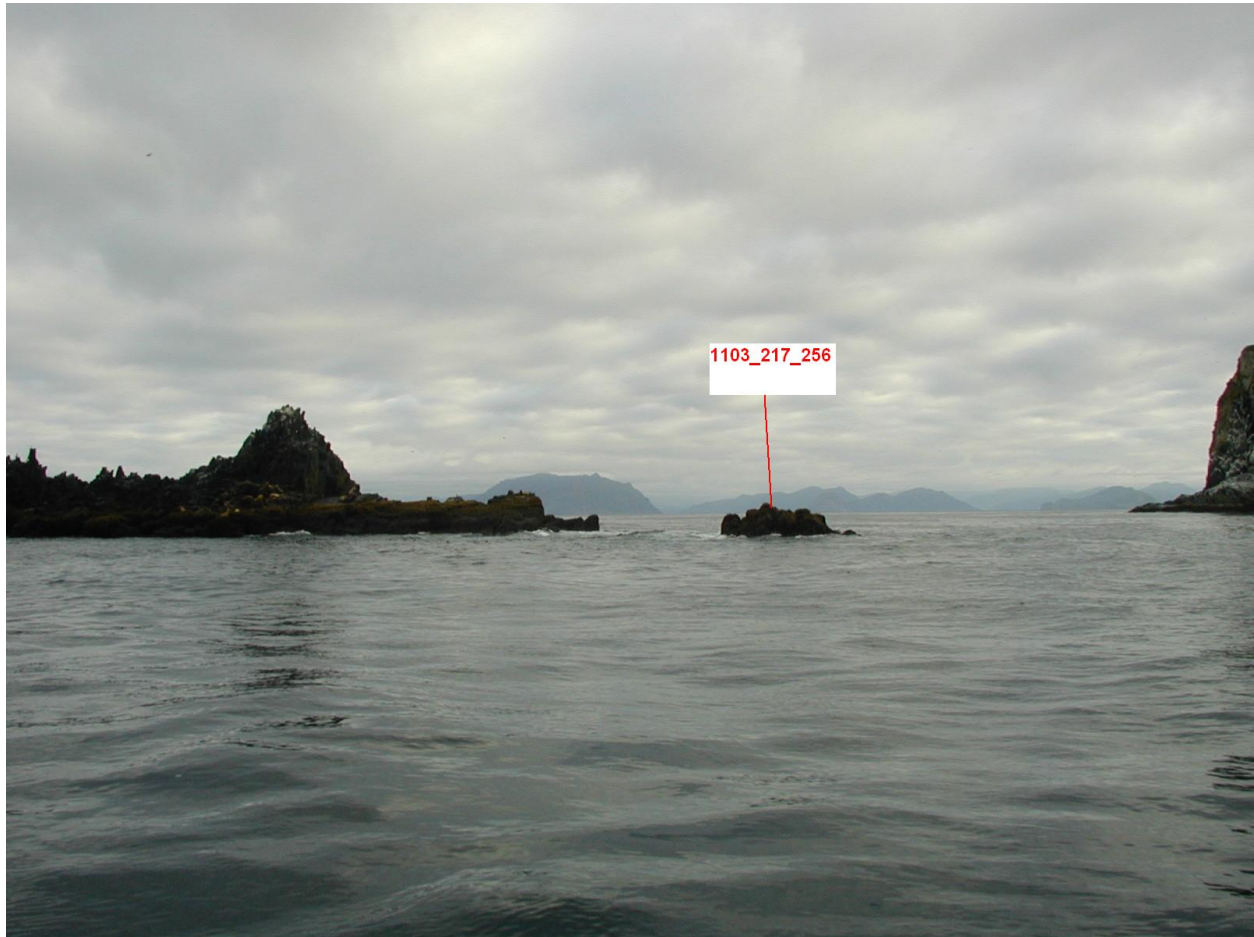


Figure 2.35.1

2.36) Profile/Beam - 7/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 48' 26.060" N, 158° 51' 29.486" W
Least Depth: 0.20 m
Timestamp: 2005-217.18:11:46.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 7/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF RK VERIFIED

QUA: GPSmode=2, SVs=7, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

.2m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 0.200 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.36.1

2.37) Profile/Beam - 9/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 48' 29.142" N, 158° 51' 05.398" W
Least Depth: -0.13 m
Timestamp: 2005-217.18:27:04.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 9/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

NEW RK
 QUA: GPSmode=2, SVs=8, HDOP=1.10

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	9/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -.1m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - -0.125 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.37.1

2.38) Profile/Beam - 10/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 48' 28.047" N, 158° 51' 09.299" W
Least Depth: -0.84 m
Timestamp: 2005-217.18:32:14.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 10/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

QUA: GPSmode=2, SVs=8, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	10/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	11	7.90	170.9	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-.9m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -0.838 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.38.1

2.39) Profile/Beam - 11/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 48' 33.300" N, 158° 50' 37.014" W
Least Depth: -2.36 m
Timestamp: 2005-217.18:37:56.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 11/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR/ CFF RK VERIFIED
 QUA: GPSmode=2, SVs=8, HDOP=1.20

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	11/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	22	2.48	173.3	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -2.4m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - -2.357 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.39.1

2.40) Profile/Beam - 12/1 from h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a

Survey Summary

Survey Position: 055° 48' 53.608" N, 158° 50' 23.567" W
Least Depth: 0.10 m
Timestamp: 2005-217.18:49:25.000 (08/05/2005)
DP Dataset: h11479 / 1103_nonechosounder_dp / 2005-217 / dp_1103_217_a
Profile/Beam: 12/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

INVESTIGATION NOT NEEDED, THIS DP IS ASSOCIATED WITH LIDAR INVESTIGATION SHOAL #AW41

QUA: GPSmode=2, SVs=6, HDOP=2.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1103_nonechosounder_dp/2005-217/dp_1103_217_a	12/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

.1m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 0.103 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.40.1

2.41) GP No. - 5 from H11265_LidarInvestigations1.xls

Survey Summary

Survey Position: 055° 51' 14.826" N, 158° 52' 36.471" W
Least Depth: [None]
Timestamp: 1990-001.11:60:00.000 (01/01/1990)
GP Dataset: H11265_LidarInvestigations1.xls
GP No.: 5
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

RA UNABLE TO ADDRESS DUE TO FOUL AREA LIDAR/ CHD (16561) RK IS 30M SOUTH OF CFF RK AND 40M NORTH OF NEW RK

OFFICE NOTES: Area of kelp. Unable to disprove.;If possible verify charted rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11265_LidarInvestigations1.xls	5	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)
Attributes: INFORM - Retain Lidar Rock

Office Notes

Chart adjacent field verified rock at 55-51-13.144N, 158-52-36.328W with least depth -1.53m. See DP 1103_213_86.

2.42) GP No. - 7 from H11265_LidarInvestigations1.xls

Survey Summary

Survey Position: 055° 51' 00.348" N, 158° 52' 57.078" W
Least Depth: [None]
Timestamp: 1990-001.11:60:00.000 (01/01/1990)
GP Dataset: H11265_LidarInvestigations1.xls
GP No.: 7
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

100% SWMB acquired, no features found
 OFFICE NOTES: On edge of kelp area. Unable to disprove.;If possible verify charted rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11265_LidarInvestigations1.xls	7	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

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

Office Notes

Retain adjacent Chd (16561) rock.

2.43) GP No. - 12 from H11265_LidarInvestigations1.xls

Survey Summary

Survey Position: 055° 48' 34.871" N, 158° 50' 21.911" W
Least Depth: [None]
Timestamp: 1990-001.11:60:00.000 (01/01/1990)
GP Dataset: H11265_LidarInvestigations1.xls
GP No.: 12
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

RA UNABLE TO ADDRESS DUE TO FOUL AREA

OFFICE NOTES: Charted drying rock not detected or seen on the video. In kelp area. Unable to disprove.;Verify charted rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11265_LidarInvestigations1.xls	12	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Cartographic symbol (\$CSYMB)
Attributes: INFORM - Retain Lidar Rock

Office Notes

Chart area as foul. Remove Chd (16561)rock and chart nearby field verified CFF rock at 55-48-31.784N, 158-50-20.962W with least depth -0.91m.

2.44) GP No. - 14 from H11265_LidarInvestigations1.xls

Survey Summary

Survey Position: 055° 51' 13.688" N, 158° 50' 50.816" W
Least Depth: 6.16 m
Timestamp: 1990-001.11:60:00.000 (01/01/1990)
GP Dataset: H11265_LidarInvestigations1.xls
GP No.: 14
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

100% SWMB acquired, no single features found

OFFICE NOTES: Possible Rk in kelp. Note: Rocks and islets inshore.; Verify least depth on submerged rock in kelp

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11265_LidarInvestigations1.xls	14	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 6.16 m

Office Notes

Chart field verified submerged rock found by multibeam with least depth 6.16m.

2.45) GP No. - 21 from H11265_LidarInvestigations1.xls

Survey Summary

Survey Position: 055° 48' 25.561" N, 158° 51' 54.668" W
Least Depth: 11.29 m
Timestamp: 1990-001.11:60:00.000 (01/01/1990)
GP Dataset: H11265_LidarInvestigations1.xls
GP No.: 21
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

no dangerous rk found, 100% SWMB coverage

OFFICE NOTES: Possible Rk in kelp. Note: Islets to N.; Verify least depth on possible rock in kelp

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11265_LidarInvestigations1.xls	21	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 11.29 m

Office Notes

No rock found with 100% MBES. No action required.

2.46) Profile/Beam - 3/1 from h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233

Survey Summary

Survey Position: 055° 48' 31.784" N, 158° 50' 20.962" W
Least Depth: -0.91 m
Timestamp: 2005-233.17:40:49.000 (08/21/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233
Profile/Beam: 3/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

CFF rk verified

QUA: GPSmode=2, SVs=9, HDOP=1.00

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-233/dp_1101_233	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

-.9m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - CFF rk verified

VALSOU - -0.906 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

Feature Images



Figure 2.46.1

2.47) Profile/Beam - 4/1 from h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233

Survey Summary

Survey Position: 055° 51' 33.933" N, 158° 49' 48.862" W
Least Depth: 0.50 m
Timestamp: 2005-233.18:20:17.000 (08/21/2005)
DP Dataset: h11479 / 1101_nonechosounder_dp / 2005-233 / dp_1101_233
Profile/Beam: 4/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

New RK

QUA: GPSmode=2, SVs=7, HDOP=1.70

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_nonechosounder_dp/2005-233/dp_1101_233	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

.5m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - New RK

VALSOU - 0.496 m

WATLEV - 4:covers and uncovers

Office Notes

Chart adjacent field verified rock located at 55-51-33.988N, 158-49-48.977W with least depth 0.41m. See DP 1101_217_1283.

Feature Images



Figure 2.47.1

2.48) Profile/Beam - 1239/18 from h11479 / 1016_reson8125_hvf / 2005-213 / 232_1655

Survey Summary

Survey Position: 055° 48' 23.102" N, 158° 51' 21.425" W
Least Depth: 4.52 m
Timestamp: 2005-213.16:59:04.601 (08/01/2005)
Survey Line: h11479 / 1016_reson8125_hvf / 2005-213 / 232_1655
Profile/Beam: 1239/18
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Rk in kelp
 correlate with lidar investigation

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1016_reson8125_hvf/2005-213/232_1655	1239/18	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	10	8.85	158.0	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

4.5m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 4.519 m
 WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

2.49) Profile/Beam - 530/200 from h11479 / 1016_reson8125_hvf / 2005-233 / 025_1829

Survey Summary

Survey Position: 055° 50' 49.154" N, 158° 51' 18.902" W
Least Depth: 4.35 m
Timestamp: 2005-233.18:30:00.028 (08/21/2005)
Survey Line: h11479 / 1016_reson8125_hvf / 2005-233 / 025_1829
Profile/Beam: 530/200
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Rk in kelp
 correlate with lidar investigation

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1016_reson8125_hvf/2005-233/025_1829	530/200	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	13	0.39	083.3	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

4.3m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 4.346 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

2.50) Profile/Beam - 161/1 from h11479 / 1101_singlebeam_hvf / 2005-217 / 000_1803

Survey Summary

Survey Position: 055° 50' 56.350" N, 158° 51' 12.026" W
Least Depth: 3.98 m
Timestamp: 2005-217.18:03:40.716 (08/05/2005)
Survey Line: h11479 / 1101_singlebeam_hvf / 2005-217 / 000_1803
Profile/Beam: 161/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Rk in kelp

correlate with lidar investigation UNABLE TO CONDUCT FULL SWMB SERCH DUE TO FOUL AREA

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1101_singlebeam_hvf/2005-217/000_1803	161/1	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	24	20.07	324.0	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

4.0m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 3.985 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

2.51) Profile/Beam - 151/83 from h11479 / 1006_reson8101_hvf / 2005-231 / 017_2134

Survey Summary

Survey Position: 055° 46' 37.159" N, 158° 53' 53.741" W
Least Depth: 6.86 m
Timestamp: 2005-231.21:34:32.614 (08/19/2005)
Survey Line: h11479 / 1006_reson8101_hvf / 2005-231 / 017_2134
Profile/Beam: 151/83
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Rk in kelp correlate with lidar investigation

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1006_reson8101_hvf/2005-231/017_2134	151/83	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	27	10.66	062.8	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

3 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

3fm 4ft (16556_1)

6.8m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 6.863 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock found by multibeam at 55-46-38.113N, 158-53-53.001W with least depth 6.313m.

2.52) Profile/Beam - 322/14 from h11479 / 1016_reson8125_hvf / 2005-211 / 080_2006

Survey Summary

Survey Position: 055° 46' 49.486" N, 158° 53' 37.889" W
Least Depth: 8.34 m
Timestamp: 2005-211.20:07:06.152 (07/30/2005)
Survey Line: h11479 / 1016_reson8125_hvf / 2005-211 / 080_2006
Profile/Beam: 322/14
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Rk in kelp correlate with lidar investigation

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1016_reson8125_hvf/2005-211/080_2006	322/14	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	28	6.42	263.4	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

4 ½fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

4fm 3ft (16556_1)

8.3m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 8.337 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

2.53) Profile/Beam - 200/9 from h11479 / 1006_reson8101_hvf / 2005-231 / 081_2208

Survey Summary

Survey Position: 055° 46' 54.996" N, 158° 53' 37.782" W
Least Depth: 2.13 m
Timestamp: 2005-231.22:09:18.821 (08/19/2005)
Survey Line: h11479 / 1006_reson8101_hvf / 2005-231 / 081_2208
Profile/Beam: 200/9
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

shoalest sounding
 correlate with lidar investigation

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1006_reson8101_hvf/2005-231/081_2208	200/9	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	33	18.98	046.8	Secondary
H11265_LidarInvestigations1.xls	29	122.70	128.6	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 1fm 1ft (16556_1)
 2.1m (500_1, 50_1)

S-57 Data

Geo object 1: Underwater rock / awash rock (UWTROC)
Attributes: VALSOU - 2.128 m
 WATLEV - 3:always under water/submerged

Office Notes

Chart field verified rock.

2.54) Profile/Beam - 311/83 from h11479 / 1006_reson8101_hvf / 2005-231 / 079_2229

Survey Summary

Survey Position: 055° 46' 51.714" N, 158° 53' 45.997" W
Least Depth: 6.93 m
Timestamp: 2005-231.22:29:57.791 (08/19/2005)
Survey Line: h11479 / 1006_reson8101_hvf / 2005-231 / 079_2229
Profile/Beam: 311/83
Charts Affected: 16556_1, 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Rk in kelp correlate with lidar investigation

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1006_reson8101_hvf/2005-231/079_2229	311/83	0.00	000.0	Primary
H11265_LidarInvestigations1.xls	30	6.86	201.7	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

3 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

3fm 4ft (16556_1)

6.9m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 6.930 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock found by multibeam at 55-46-51.530N, 158-53-45.561W with least depth 6.33m.

2.55) Profile/Beam - 1/1 from h11479 / 1016_reson8125 / 2005-233 / 08212005_a

Survey Summary

Survey Position: 055° 51' 24.914" N, 158° 50' 23.613" W
Least Depth: 1.63 m
Timestamp: 2005-233.19:15:08.000 (08/21/2005)
DP Dataset: h11479 / 1016_reson8125 / 2005-233 / 08212005_a
Profile/Beam: 1/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

QUA: GPSmode=2, SVs=7, HDOP=1.70

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1016_reson8125/2005-233/08212005_a	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

1.6m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 1.634 m

WATLEV - 4:covers and uncovers

Office Notes

Chart field verified rock.

2.56) Profile/Beam - 2/1 from h11479 / 1016_reson8125 / 2005-233 / 08212005_a

Survey Summary

Survey Position: 055° 51' 24.913" N, 158° 50' 23.600" W
Least Depth: 3.37 m
Timestamp: 2005-233.19:34:37.000 (08/21/2005)
DP Dataset: h11479 / 1016_reson8125 / 2005-233 / 08212005_a
Profile/Beam: 2/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

LIDAR RK VERIFIED

QUA: GPSmode=2, SVs=7, HDOP=1.80

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11479/1016_reson8125/2005-233/08212005_a	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)

3.3m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - LIDAR RK VERIFIRD

VALSOU - 3.369 m

WATLEV - 4:covers and uncovers

Office Notes

Chart adjacent field verified rock at 55-51-24.914N, 158-50-23.613W with least depth 1.63m. See DP 1016_233_3491.



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : January 10, 2006

HYDROGRAPHIC BRANCH: Pacific Hydrographic Branch

HYDROGRAPHIC PROJECT: OPR-P182-RA-2005

HYDROGRAPHIC SHEET: H11479

LOCALITY: West Mitrofanina Island, AK

TIME PERIOD: July 19 to August 21, 2005

TIDE STATION USED: Sand Point, AK 945-9450

Lat. 55 19.9' N Long. 160 30.3' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.988 meters

TIDE STATION USED: Mitrofanina Island, AK 945-9016

Lat. 55 53.4' N Long. 158 49.2' W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.121 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: SWA181

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-P182-RA-2005, H11479

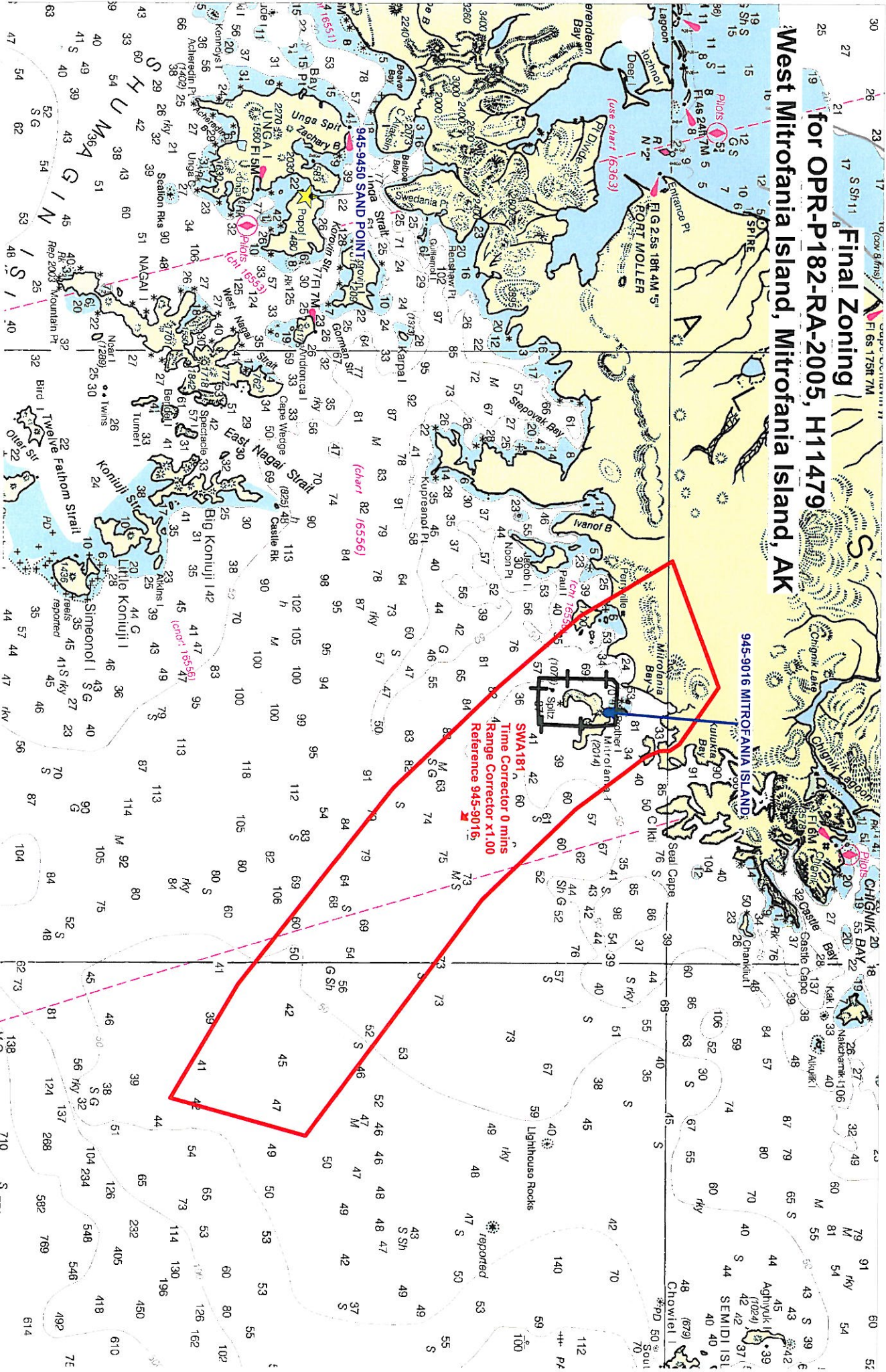
Format: Tide Station (in recommended order of use)
 Average Time Correction (in minutes)
 Range Correction
 Longitude in decimal degrees (negative value denotes Longitude West),
 Latitude in decimal degrees

	Tide Station Order	AVG Time Correction	Range Correction
Zone SWA181	945-9016	0	1.00
-157.434421 55.337217	945-9450	-6	1.10
-157.556936 55.084911			
-157.930575 55.210466			
-158.571047 55.495877			
-158.907942 55.693171			
-159.13617 55.839591			
-159.223754 55.922913			
-159.31513 56.008739			
-158.902585 56.094928			
-158.717544 56.023546			
-158.695693 56.005184			
-158.695213 55.986881			
-158.689734 55.980967			
-158.680795 55.968157			
-158.673346 55.9598			
-158.504524 55.833366			
-158.207958 55.662824			
-157.434421 55.337217			

Final Zoning

for OPR-P182-RA-2005, H11479

West Mitrofanina Island, Mitrofanina Island, AK



H11479 HCell Report
Katie Reser, Physical Scientist
Pacific Hydrographic Branch

Introduction

The primary purpose of the HCell is to directly update NOAA ENC's with new survey information in International Hydrographic Organization (IHO) format S-57. HCell compilation of survey H11479 utilized Office of Coast Survey HCell Specifications Version 3.0, May 2008 and HCell User Guide Version 1.1, June 2008. HCell H11479 will be used to update charts 16561, 1:80,000 (3rd Ed.; March 2007, NM 2/7/2009), 16556, 1:80,000 (5th Ed.; April 2006, NM 2/14/2009), 16013, 1:969,761 (30th Ed.; July 2006, NM 2/7/2009), 16011, 1:1,023,188 (37th Ed.; November 2007, NM 2/7/2009), 16006, 1:1,534,076 (35th Ed.; April 2008, NM 2/7/2009) and US4AK59M.

HCell H11479 contains a portion of LIDAR surveys H11264 and H11265 (figure 1). Seven soundings were digitized from the LIDAR smooth sheets. In areas where the LIDAR surveys are overlapped by H11479, only coincident soundings with shoaler depths from LIDAR are included H11479 HCell.

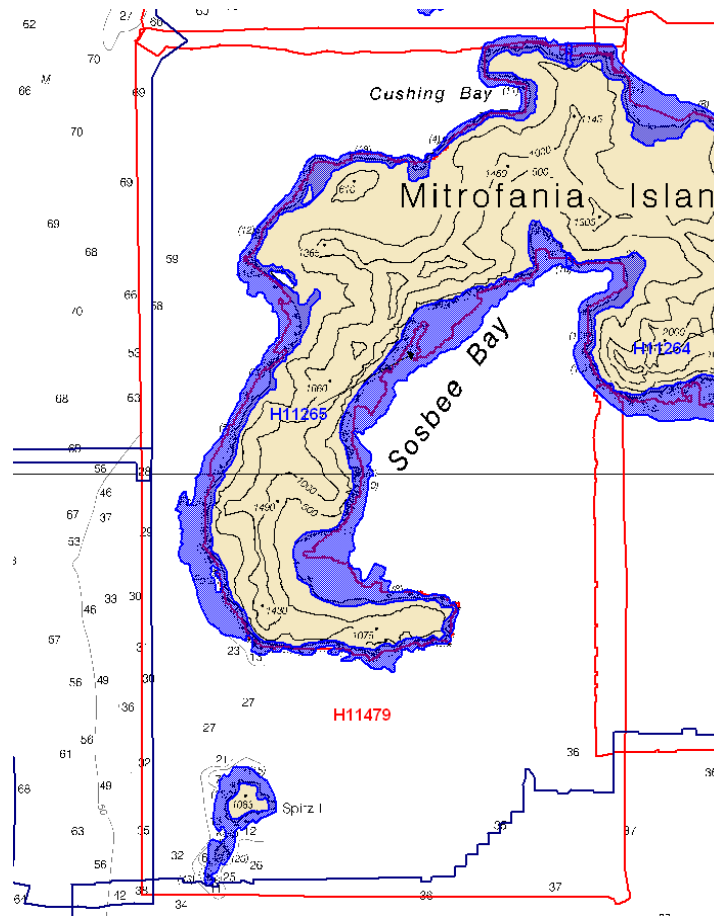


Figure 1. H11264, H11265 and H11479 survey coverage

1. Compilation Scale

The density of soundings in the HCell is compiled as appropriate to emulate those soundings of chart 16561, 1:80,000. Position and density of non-bathymetric features included in the HCell have not been generalized from the scales of the hydrographic surveys H11479, H11264 and H11265, 1:10,000.

2. Soundings

2.1 Source Data

A 5-meter resolution Combined BASE surface, **H11479_Combined_5m**, was used as the basis for HCell production following Branch certification.

A survey-scale sounding (SOUNDG) feature object source layer was built from the **H11479_Combined_5m** surface in CARIS BASE Editor. A shoal-biased selection was made at 1:15,000 scale using a radius table with values shown in **Table 1**.

Upper limit (m)	Lower limit (m)	Radius (mm)
0 10		3
10 20		4
20 50		4.5
50 150		5

Table 1

For the portions of H11264 and H11265 that are included in the survey, Smooth Sheets AW and AV were used as the basis for HCell production following Branch certification.

2.2 Sounding Feature Objects

In CARIS BASE Editor soundings were manually selected from the high density sounding layers from H11479 and imported into a new layer created to accommodate chart density depths. Manual selection was used to accomplish a density and distribution that more closely represents the seafloor morphology and that emulates density and distribution of soundings on chart 16561 than is possible using automated methods. See section 10.1, Data Processing Notes, for details about the use of manual sounding selection for H11479. The sounding feature object source layer was imported into the **H11479_HCell_Features.hob** file, which was used as a template to create the S-57 Composer product **H11479_CS.prd**.

3. Depth Areas

3.1 Source Data

Using the combined BASE surface **H11479_Combined_5m** one depth area was generated. Additional depth contours at the intervals on the largest scale chart were

delivered per latest guidance from the 2009 Field Procedures Workshop. The depth contours are included in the **US411479_SS.000** file.

3.2 Depth Area Feature Objects

One depth range, 0 meters to 150 meters, was used for all depth area objects. Upon conversion to NOAA charting units, this depth range is 0 fathoms to 82.0 fathoms.

4. Meta Areas

The following Meta object areas are included in HCell 11479:

M_QUAL
M_COVR

Meta area objects were constructed on the basis of perimeter lines delineating the surveyed limits and extents of data gaps inside the survey area. These perimeters were first used to create the Skin of The Earth (SOTE) layer, then were duplicated to the Meta object layers and attributed per the H-Cell Specifications, ver. 3.0 and HCell User Guide ver. 1.1.

5. Survey Features

No DTONs were reported from H11479 or H11264.

The one DTON reported from H11265 does not fall within the bounds of H11479.

H11479 contains no AWOIS items.

Ten bottom samples were collected with H11479 and are included in the HCell. There were no charted bottom samples within the H11479 survey area.

The source of all features included in the H11479 HCell can be determined by the **SORIND** or **SORDAT** field. For the rock/islet determination, the Tide Note value for MHW (-2.121 meters) was used. LIDAR data cannot be used to disprove charted features since it cannot meet the object detection requirements in the NOS Hydrographic Surveys Specifications and Deliverables. Only multibeam data and shoreline verification were used to disprove charted features. All features to be included in the HCell were addressed and de-conflicted in BASE Editor and imported into the **H11479_HCell_Features.hob** file, which was used as a template to create the S-57 Composer product **H11479_CS.prd**.

Shoreline Features

Shoreline features for H11479 were delivered in nine MapInfo tables and a Pydro PSS. There is some redundancy of features between the files.

- H11479_AY_CFF_Shoreline.tab (Features to be retained as depicted in the source shoreline file)
- H11479_AY_CFF_RKS.tab (Rocks to be retained as depicted in the source shoreline file)
- H11479_AY_CHD_Shoreline.tab (Charted shoreline used for reference or when source data was not available)
- H11479_AY_CHD_Rocks.tab (Charted rocks used for reference or when source data was not available)
- H11479_AY_LIDAR_Shoreline.tab (LIDAR shoreline used for reference)
- H11479_AY_LIDAR_Rocks.tab (LIDAR rocks used for reference)
- H11479_PSSFEATURES.tab (New shoreline features or modified source features)
- H11479_SHORELINE_UPDATES.tab (New shoreline features or modified source features)
- H11479_SHORELINE_NOTES.tab (Field notes about source features, charted features and verified features)

Shoreline point features in Pydro were given S-57 attribution and exported to an xml file. The xml files were imported into CARIS Notebook via the Pydro Data Import utility. H11479_Pydro_Add.hob and H11479_Pydro_Delete.hob were generated from this process and used to update and de-conflict shoreline data.

Shoreline line/area features were derived from the MapInfo tables described above. The tables were exported to dxf files and opened in CARIS Base Editor. The line/area features to be included in the HCell were digitized from the dxf files.

6. Shoreline / Tide Delineation

Depth areas (DEPARE) were created for all SOTE features.

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 HCell User Guide ver. 1.1.

8. Layout

8.1 CARIS S-57 Composer Scheme

SOUNDG	Chart scale soundings
DEPARE	Group 1 objects (Skin of the Earth)
COALNE	CFF mean high water line
LNDARE	Islet features
LNDELV	Height attribute for point islet features
UWTROC	Rock features
OBSTRN	Foul areas
WEDKLP	Kelp features
SBDARE	Bottom samples and rocky seabed areas
M_COVR	Data coverage meta object
M_QUAL	Data quality meta object
\$CSYMB	Blue notes

8.2 Blue Notes

Notes regarding data sources are in S-57 Composer as a \$CSYMB feature with the blue note located in the INFORM field and the survey registry number, chart number, chart edition and edition date located in the NINFOM field. The blue notes are included in the HCell when it is exported to .000. The blue notes are also included as a separate ASCII file **H11479_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 in CARIS BASE Editor, and creation of the HCell in CARIS S-57 Composer, 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.

A CARIS environment variable, `uslXsounding_round`, controls the depth at which rounding occurs. Setting this variable to NOAA fathoms and feet displays all soundings from 0 to equal to or greater than 11 fathoms as whole units.

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. Drying heights are in feet and are rounded using arithmetic methods. In an ENC viewer, heights greater than 6 feet will register in fathoms and feet using the above stated rules.

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 (or fathoms and feet above 6 feet)
Positional Units (PUNI):	Meters

10. QA/QC

10.1 Data Processing Notes

Manual chart scale sounding selections were made for this survey. Experience has shown that in areas where bathymetry is steep sided, as in the case of this extremely steep edged fjord, automated sounding selection is impractical. None of the default sounding suppression options offered in CARIS BASE Editor or S-57 Composer yields an acceptable density and distribution of depths, generally bunching soundings nearshore with too sparse coverage seaward. While the customized options are more practical for this type of terrain, an inordinate amount of time must be spent in experimentation with variations on the algebraic terms in order to devise the most suitable formula, and manual adjustments are still required to the resulting sounding set.

10.2 ENC Validation Checks

H11479 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 converted to a chart unit 000 file. dKart Inspector 5.1 was then used to further check the data set for conformity using the S-58 ver. 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 HSD, MCD and CGTP Deliverables

- H11479 Base Cell File, Chart Units, Soundings compiled to 1:80,000
- H11479 Base Cell File, Chart Units, Soundings compiled to 1:15,000
- H11479 Descriptive Report including end notes compiled during office processing and certification
- H11479 HCell Supplemental Report
- H11479 Blue Notes ASCII file

11.2 File Naming Conventions

S-57 Composer Product prefix: *H11479_CS.prd and H11479_SS.prd*

MCD Chart units base cell file: *US411479_CS.000*

MCD Chart units base cell file, survey scale soundings: *US411479_SS.000*

11.3 Software

HIPS 6.1:	Management and inspection of Combined BASE surfaces
BASE Editor 2.1: S-57	Combination of Product Surfaces and initial creation of the bathymetry-derived features
CARIS Notebook 3.0:	Management and inspection of shoreline files
S-57 Composer 2.0:	Assembly of the HCell, S-57 products export, QA
HOM 3.3:	Assembly of the HCell, S-57 products unit conversion and sounding rounding
GIS 4.4a:	Setting the sounding rounding variable
Pydro v7.3 (r2252)	Creation of Feature and DTON reports
dKart Inspector 5.1:	Validation of the base cell file

12. Contacts

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

Katie Reser, Physical Scientist, PHB, Seattle, WA; 206-526-6864;
Katie.Reser@noaa.gov.

APPROVAL SHEET
H11479

Initial Approvals:

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

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.

I have reviewed the HCell, 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.