H11609

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. n/a

Registry No. H11609

LOCALITY

State Alaska

General Locality Approaches to Cordova, Alaska

Sublocality Sheep Bay

2006

CHIEF OF PARTY

Commander Andrew L. Beaver, NOAA

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

HYDROGRAPHIC TITLE SHEET

H11609

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. n/a

State: Alaska

General Locality: Approaches to Cordova

Sublocality: Sheep Bay

Scale: 1:10,000 Date of Survey: 06 Sep to 20 Sep, 2006

Instructions Dated: 8/4/2006 Project No.: OPR-P158-FA-06

Vessel: FAIRWEATHER S220

Chief of Party: CDR Andrew L. Beaver, NOAA

Surveyed by: FAIRWEATHER Personnel
David Sinson, SST Grant Froelich, LTJG Michael Gonsalves

Soundings taken by echo sounder: Reson 8101

Graphic record scaled by: N/A

Graphic record checked by: N/A

Evaluation by: Matt Andring Automated plot by: N/A

Verification by: Fernando Ortiz

Soundings in: Fathoms and Feet at MLLW

REMARKS: Time in UTC. UTM Projection Zone 6
Revisions and annotations appearing as endnotes were
generated during office processing.
As a result, page numbering may be interrupted or non-sequential.
All separates are filed with the hydrographic data.

Descriptive Report to Accompany Hydrographic Survey H11609

Project OPR-P158-FA-06
Approaches to Cordova, Alaska
Scale 1:10,000
September 2006
NOAA Ship FAIRWEATHER
Chief of Party: Commander Andrew L. Beaver, NOAA

A. AREA SURVEYED

A.1 Survey Limits

The survey area was located in Orca Bay, Alaska within the sub-locality of Sheep Bay. This survey corresponds to the Survey G area designation in the survey layout provided with the Letter Instructions, as shown in Figure 1 below. The survey area is bounded on the Northeast corner at 60°42’30”N, 146° 0' 5" W and the Southwest corner at 60° 36' 35"N, 146°15’30”W.

Data acquisition was conducted from September 6, 2006 to September 20, 2006 (Julian days 250 - 264). This area encompasses 15.87 square nautical miles within the full-coverage survey limits.

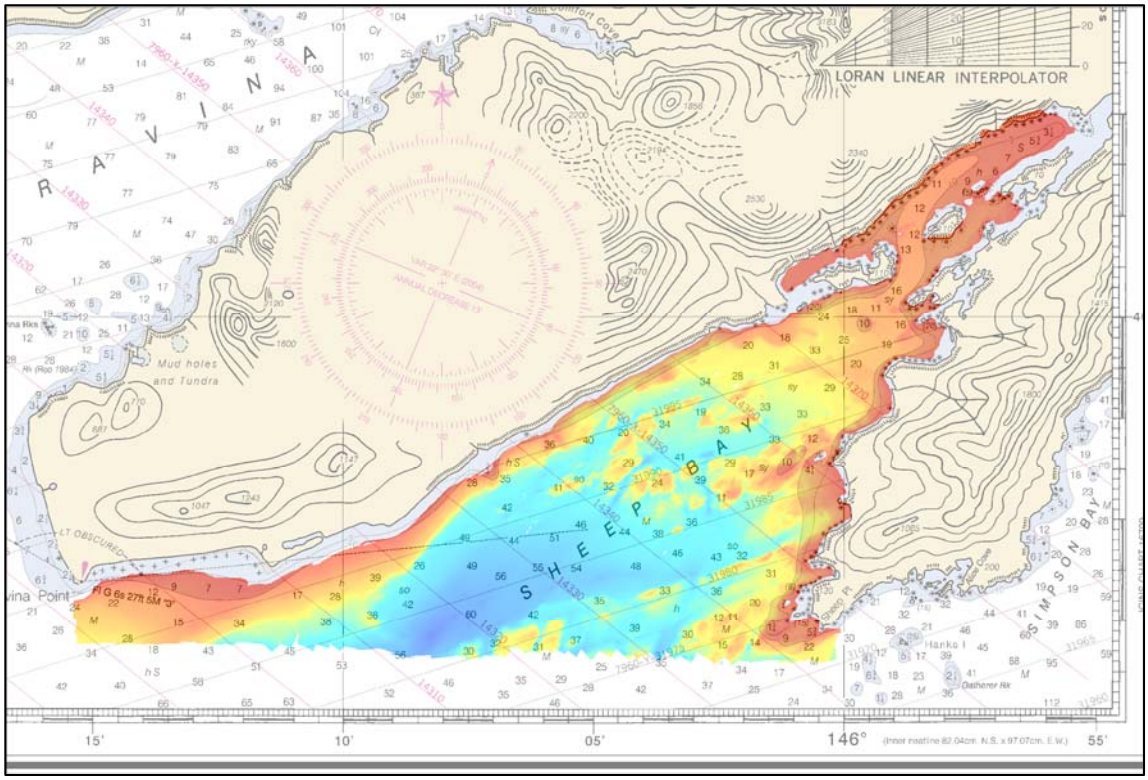


Figure 1: H11609 survey area bathymetry limits (NOAA Chart 16708)

A.2 Area Description

The entrance to Sheep Bay is open to Orca Bay and exposed from the south, east and west; offering little protection. The northern shore of Sheep Bay is straight, steep, rocky and featureless, with occasional shore-face deltas at small streams. The bottom is rocky and there is little anchorage or protection along the northern shore. The southeast shore is broken by many small bays and beaches with good anchorage and shore access for small boats, however, offshore rocks and reefs exist as submerged obstructions and must be navigated with caution. The upper reaches of Sheep Bay offer spectacular views of the Chugach Mountains with good anchorages and safe harbors in protected small bays and inlets. Many recreational and fishing vessels were observed navigating the upper reaches of Sheep Bay during survey operations and the area is a recreational destination for visitors from nearby Cordova during summer months. Clearance depth for access to the northwest upper reach of Sheep Bay is limited by rocks, ledges and reefs oriented across the major channels.

Figure 2: A view of the Chugach Mountains from upper Sheep Bay

A.3 Survey Scope

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-P158-FA[1], dated August 4, 2006 and Change No. 1, dated April 27th, 2006.

A.3.1 Mainscheme Hydrography

One hundred percent multibeam echosounder (MBES) coverage was obtained within the survey area[2] in accordance with the Project Letter Instructions and NOAA Hydrographic Specifications and Deliverables

Manual. MBES coverage was acquired to develop the 8-meter depth curve in near-shore areas or within 64 meters proximity of the RSD CFF MHW coastline.

A.3.2 Shoreline Verification

Limited shoreline verification was performed for H11609 in accordance with the Project Letter Instructions. Refer to section D.4 for a full description of shoreline verification data and procedures.

A.3.3 Survey Statistics

Survey day	Linear nmi
250	13.5
251	40.7
252	24.2
256	36.6
257	51.9
261	73.9
262	17.3
263	8.7
264	28.7

Survey totals:

Survey days	Linear nmi	Square nmi	SVP	Bottom Samples
9	295.5	15.9	23	11

Survey statistics were calculated in Pydro and MapInfo.

A.3.4 Junctions

Survey H11609 junctions with H11499 (2005) at the southern limit at the entrance to Sheep Bay.[3] The area of overlap between the surveys was at least 100 meters. Caris BASE surfaces were reviewed in CARIS HIP/SIPS to compare depths from the two surveys and ensure that adequate coverage was achieved in the junction. Depths are consistent between the two surveys and coverage is complete.

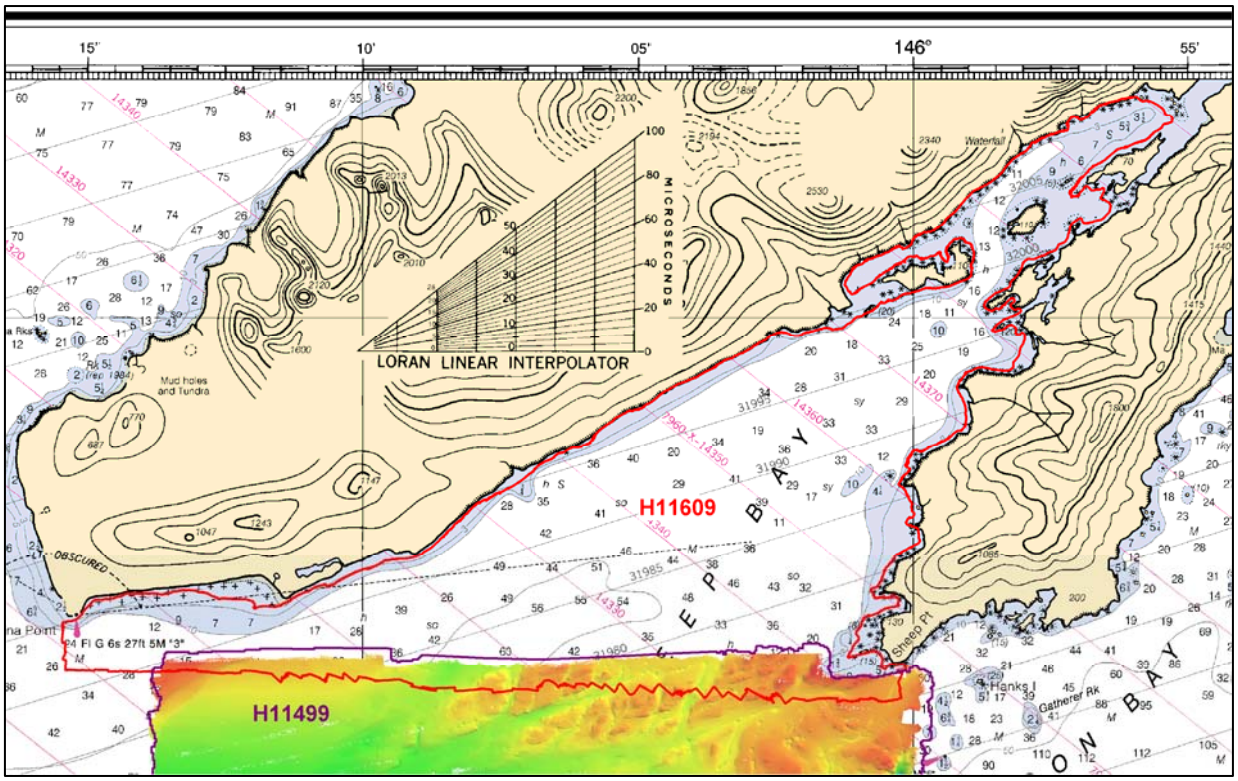


Figure 3: Junction overlap of surveys H11609 and H11499

B. DATA ACQUISTION AND PROCESSING

A complete description of data acquisition/processing systems and survey vessels along with quality control procedures and data processing methods are included and described in the *OPR-P158-FA-06 Data Acquisition and Processing Report* (DAPR)[4], submitted under separate cover. Any differences from the DAPR are discussed in the following sections.

B.1 Equipment and Vessels

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

	Jensen Launch 1010	Jensen Launch 1018	MonArk	Ambar 700
Hull Registration Number	1010	1018	1706	2302
Length Overall	28' 10"	28' 10"	17'	23'
Draft, Maximum	4' 0" DWL	4' 0" DWL	1' 3"	1' 4"
Survey Speed	8 knots	8 knots		
Primary Echosounder	RESON 8101	RESON 8101		
Sound Velocity Equipment	SBE 19plus	SBE19plus		
Attitude & Positioning Equipment	POS/MV V3	POS/MV V3		
Type of operations	MBES	MBES	Shoreline Verification	Shoreline Verification, Bottom Samples

Table 1: Survey acquisition platforms

B.2 Quality Control

Data quality for survey H11609 was evaluated through examination of CUBE and BASE surfaces that were generated from raw soundings. CUBE hypothesis count and strength was used to identify any areas of ambiguity where the surface model required manual review. All areas of high standard deviation were examined in raw soundings to eliminate noise and identify significant shoals. Soundings and surfaces in overlapping coverage and outer beams were reviewed for systematic errors and excessive noise. In general, the data were consistent in comparisons between day-day, vessel-vessel, and line-line coverage with minor errors in water-level and sound-velocity correction observed in the upper areas of Sheep Bay.[5]

B.2.1 Crosslines

Multibeam echosounder crosslines for this survey totaled 15.3 linear nautical miles (lnm), comprising 5.7% of the 267.2 lnm of total mainscheme hydrography. All crosslines were acquired on the final day of data acquisition.

Crossline data were evaluated in Caris standard deviation BASE surfaces. In general, there was very good agreement between crossline and mainscheme data with standard deviation usually less than 0.5 meter.[6] In the upper reaches of Sheep Bay, there were consistent but minor (0.2 meter) variations observed, probably due to tide and sound velocity biases. These biases can be attributed to the constricted

exchange between the main and upper bays. In deeper waters of the Simpson Bay, tide variation was minimal. Outer-beam noise and sound velocity error contributed to minor variations (< 1% of depth) along junctions between lines in deeper waters.

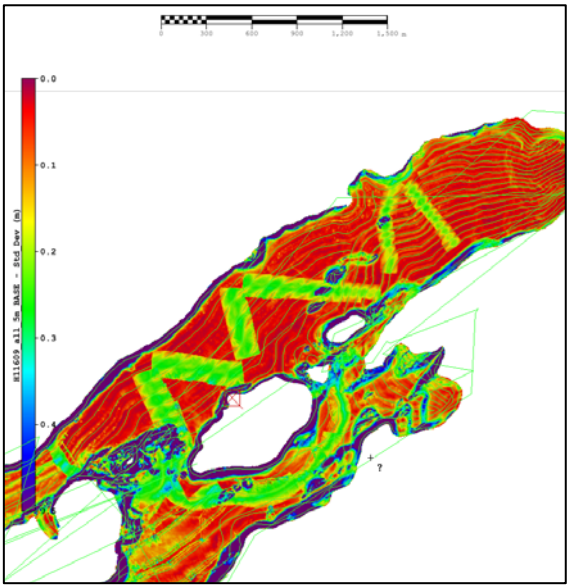


Figure 4: Minor tide and sound velocity bias in upper areas of the bay. Note scale bar on left for standard deviation values (0.0 – 0.5 meters).

B2.2 Coverage Assessment

Very small holidays are displayed in gridded surfaces where modeling resolution was too high for the sounding density, or poor quality soundings and noise were cleaned from the raw data. Raw soundings were reviewed in all holiday areas to assess any indication of shoaling. Coverage assessment was determined using the depth ranges and BASE surface resolutions listed Table 2.

Depth Ranges (m)		Resolution (m)
Low	High	
0	10	0.5
10	20	1
20	40	2
40	130	5

Table 2: Coverage evaluation depth ranges and BASE surface resolutions

B.2.2.1 Areas of incomplete coverage

The extents of a shoal reef in the upper bay was not adequately developed or delineated with multibeam bathymetry. The holiday is approximately 150 meters in diameter around the least depth of the reef in position Lat. 60°41'04.848" N, Lon. -145°57'25.341". The least depth of the shoal was acquired with a visible observation at low tide and attributed as a feature in the Pydro PSS (Disp. Name 225212). The corrected least depth on the reef is -0.32 meters (-0.17 fathom). A private residence and dock exists on the island southwest of the reef, contributing to navigational significance. The shoal depth was reported as a DTON, and at the current chart scale, a submerged rock and danger circle encompass the holiday area on the updated raster nautical chart.

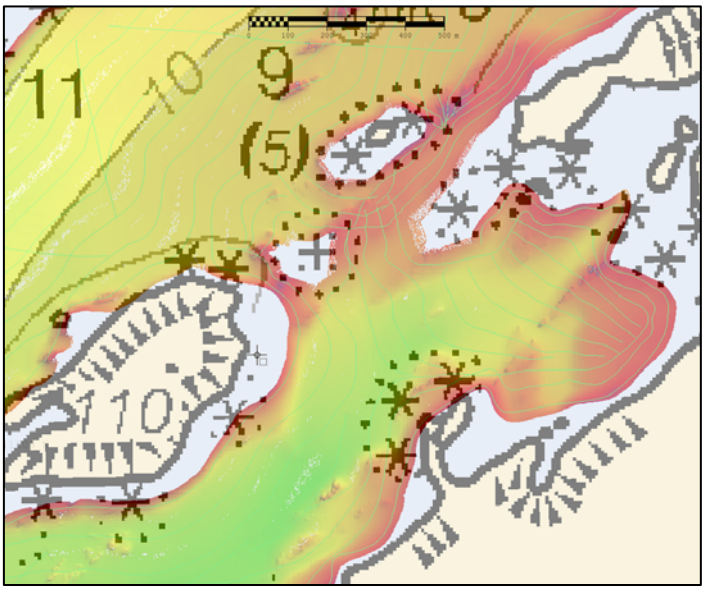


Figure 5: Rock awash and danger radius on Chart 16709 updated with DTON from H11609.

B.2.3 Object Detection and Designated Soundings

Full-density soundings were examined in all areas of high standard deviation and questionable grid coverage to ensure adequate object detection and least-depth determination. Soundings were designated on critical shoals to ensure representation of the least depths in final surface models. Designated soundings on dangerous shoal features were included in the Danger to Navigation Report.

B.3 Vessel Configuration and System Installation

A minor roll bias was observed in overlapping coverage for Survey Launch 1010. The roll correction value was changed from 2.25 to 2.55 degrees and the data were remerged in Caris HIPS. A minor roll bias was observed in overlapping coverage for Survey Launch 1018. The roll correction value was changed from 2.64 to 3.10 degrees and the data were remerged in Caris HIPS. Uncertainty values for sensor alignment were modified after the survey and documented in the DAPR.[7] Final surfaces were created with the updated uncertainty values at the Branch.

B.4 Data Processing

The survey area was divided into 4 fieldsheets to represent physical characteristics of the survey area and to create BASE surface models. H11609_N includes the upper reaches of Sheep Bay. H11609_E includes the eastern coastline of Sheep Bay north from Sheep Point. H11609_C includes the center and approaches to Sheep Bay as well as the northern coastline. H11609_ W includes the coastline from Gravina Point to the middle entrance of Sheep Bay. Refer to Figure 6.[8]

All fieldsheets contain finalized BASE surfaces created from Uncertainty-weighted grids at 0.5, 1, 2, and 5-meter resolutions.[9] 5-meter resolution grids were the coarsest resolution required to demonstrate coverage and represent depths for the entire survey area.

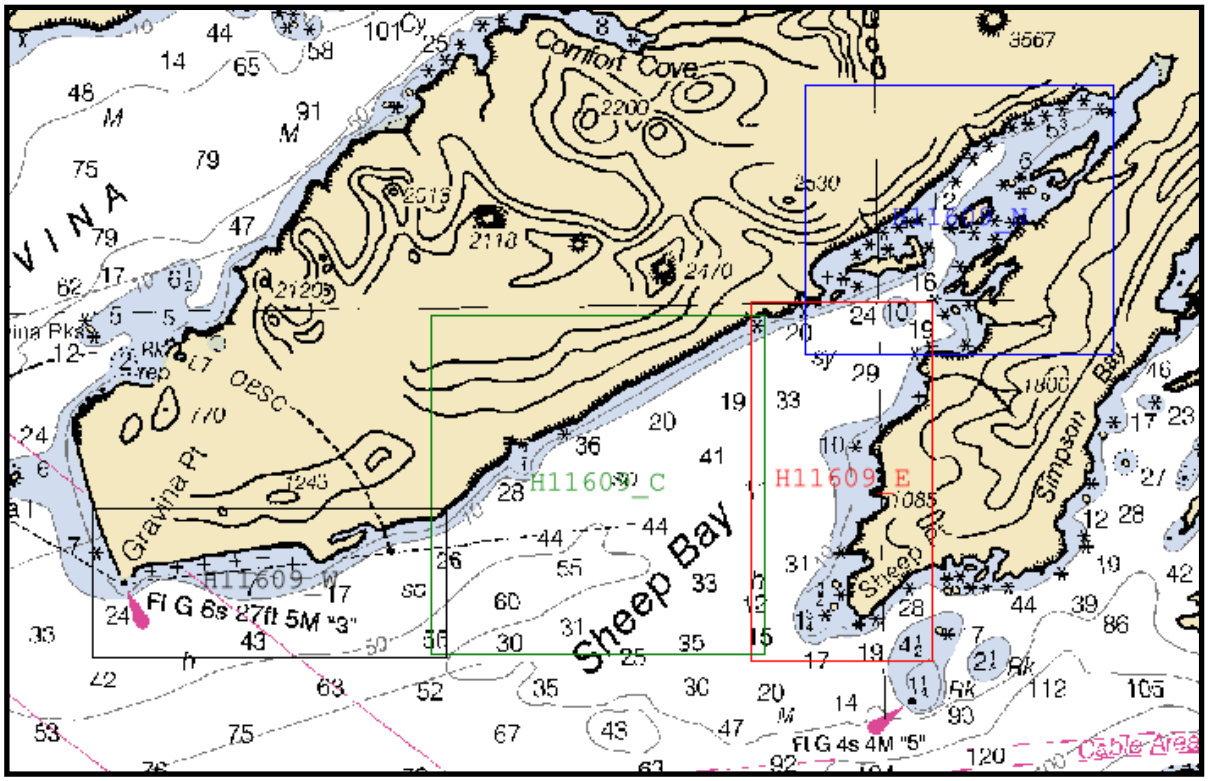


Figure 6. H11609 Fieldsheet layout.

C. HORIZONTAL AND VERTICAL CONTROL

A complete description of horizontal and vertical control for survey H11609 can be found in the *OPR-P158-FA-06 Horizontal and Vertical Control Report*,[10] submitted under separate cover. A summary of horizontal and vertical control for this survey follows.

C.1 Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Differential GPS (DGPS) was the sole method of positioning. Differential corrections came from the U.S. Coast Guard beacons at Cape Hinchinbrook (292 kHz) and Potato Point (298 kHz).

C.2 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 Cordova (945-4050) served as control for datum determination and as the primary source for water level reducers for survey H11609 during acquisition. No tertiary gauges were installed for this survey.

A request for delivery of final approved water level data for survey H11609 was forwarded to N/OPS1 on 16 October 2006. A copy of the request is included in Appendix V.[11]

The Tide Note for H11609 states that preliminary zoning is accepted as the final zoning correctors. Final approved water level data were received on 16 October 2006 for NWLON primary tide station Cordova (945-4050). The Tide Note for Hydrographic Survey H11609 and ancillary correspondence are included in Appendix V.

All data were reduced to MLLW using the final approved water levels from station Cordova (945-4050) by applying tide file 9454050.tid and time and height correctors through the zone corrector file P158FA2006CORP.zdf.

D. RESULTS AND RECOMMENDATIONS

D.1 Chart Comparison

Survey H11609 was compared with electronic raster editions of charts 16708 (26th Ed.; October 2004, 1:79,291), 16709 (23rd Ed.; April 2005, 1:80,000), and 16700 (29th Ed.; July 2004, 1:200,000),[12] provided on the project CD. The Local Notice to Mariners were not reviewed for the chart comparisons, however the latest electronic versions of the charts were reviewed at the Branch.

Chart comparisons were performed in MapInfo, Pydro and Caris HIPS/SIPS using survey depths and feature data. The current charts of the survey area were compiled from extremely limited data originating from reconnaissance lead-line surveys conducted in 1902 (H02501) and 1913 (H03553). Figure 6 is a section of the smoothsheet for survey H02501 and illustrates the sparse coverage used to plot soundings and contours for charts 16708 and 16709. There are numerous areas where charted data are incomplete or disparate from current survey data. The hydrographer recommends that all charted data within the survey area be superseded with depths and features data from this survey.[13]

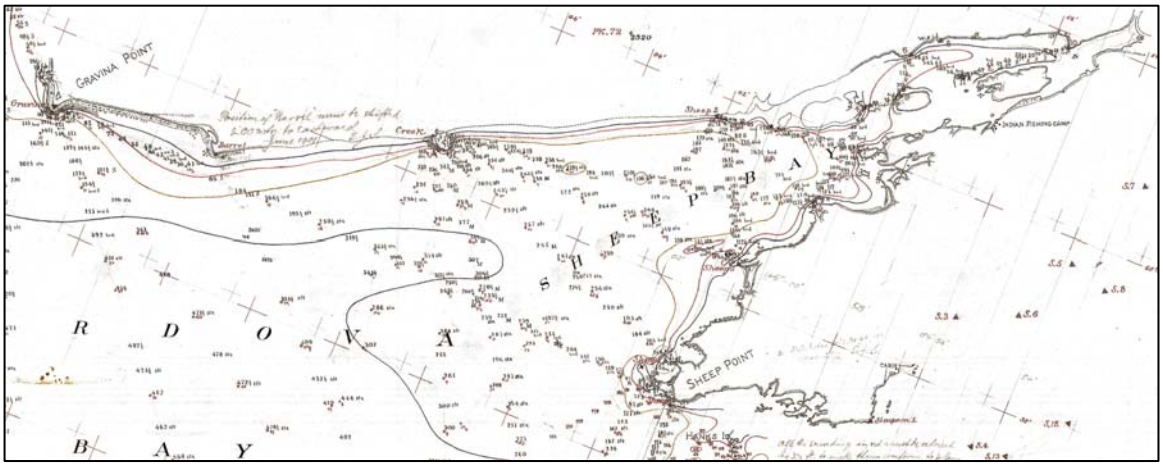


Figure 7: Survey H02510 1902 smooth sheet section of Sheep Bay.

Chart 16708 and 16709

Charts 16708 and 16709 are equivalent scale charts (1:80,000) that overlap in the survey area. Depths from survey H11609 generally agreed with depths on the charts only where lead-line soundings from prior surveys provided localized depths. Modern, high resolution coverage from this survey provides soundings on many features which are not currently depicted on the charts.

- Many uncharted submerged rocks, shoals and pinnacles were detected with full-coverage methods employed for this survey. Fourteen shoal depths and features were reported as DTON.
- Highly variable bathymetry and seafloor geology observed in data from this survey are inadequately represented with charted soundings and contours.
- Uncharted areas in the upper bay offer navigable waters and protected anchorages for fishing, tourism and recreational vessels.
- Many charted rocks along the coastline were not observed during this survey; visibly at low water or in multibeam echosounder data. These rocks may be cartographic representation of features derived from sparse data and descriptive information provided in early reconnaissance surveys. Refer to the H02501 prior survey descriptive report for more information.
    - Many regularly spaced charted rocks along coastline in the upper bay were not observed visibly or in full coverage multibeam ecosounder bathymetry.

D1.2 Chart Comparison Recommendations

The Hydrographer recommends that all charted data be replaced and superseded with data from this hydrographic survey and contemporary Remote Sensing Division photogrammetric shoreline.

D.2 Automated Wreck and Obstruction Information System (AWOIS) Investigations

There were two AWOIS items located within the limits of H11609. All AWOIS items were resolved and are addressed in the Pydro PSS and H11609_Features.pdf, submitted as Appendix II.[14]

D.3 Dangers to Navigation

Fourteen dangers to navigation (DTON) were identified and reported to the Marine Charting Division for submission to the Seventeenth Coast Guard District on September 6, 2006. A copy of the Danger to Navigation Report is included as Appendix 1.[15]

D.4 Shoreline Verification

D.4.1 Shoreline Source

Source shoreline data for this sheet were provided on the project CD from RSD photogrammetric survey AK0402 (NAD 83) GC-10570. Data and metadata for this mapping project are available on the WWW at http://www.ngs.noaa.gov/RSD/shoredata/NGS_Shoreline_Products.htm .

Field plots and a composite source data file were created from the RSD photogrammetric data and NOAA ENC US4AK24M. Notes from field plots and evaluations were recorded in the remarks and recommendations attributes in the H11609_Composite_Source.hob Caris Notebook file.

D.4.2 Shoreline Verification

Limited shoreline verification was conducted within times of predicted low water (MLLW +/- 2.6 feet), in accordance with the Standing Project Instructions and Hydrographic Surveys Technical Directive 2006-2.

Horizontal positions and vertical elevations of rocks and shoals were acquired with direct visual observations and a time stamp during periods of lower-low tides. All vertical measurements were acquired relative to the local water level and corrected to survey datum in Caris HIPS with zoned tide correctors. Least depths and visible high points of rocks, reefs and ledges were determined during post processing with tide-corrected soundings. The reference datum values for MLLW (1.916) and MHW (5.475) were obtained from the CO-OPS WWW page for the primary gauge at Cordova (Station ID: 9454050). The correction for heights relative to MLLW/MHW is +3.56 meters. All soundings below -4.35 meters (MHW + 2.6 ft) were processed as depths in the Pydro PSS and designated for inclusion in the finalized bathymetric surfaces. Heights of significant bare rocks and islets (S-57 LNDARE objects) were measured relative to local water level and can be corrected to MHW heights for application as navigational aids during chart and ENC compilation. These data were attributed in Pydro and formatted as S-57 objects in Caris Notebook for submittal to the processing branch.

Detached positions (DP, with sounding data) and geographic positions (GP, without sounding data) acquired during shoreline verification were recorded in Trimble TerraSync software using a Trimble XRS

Pro DGPS positioning system. Additional annotations recorded during acquisition on paper field plots and feature forms were transcribed to the feature remarks attribute when applicable. Scanned electronic copies of the plots and feature forms are included in the survey Separates.

D.4.3 Shoreline Data Processing

Positions and soundings acquired during shoreline verification operations were imported into Pydro using the Generic GP/DP Import tool. Features were processed as DP when sounding data were associated with horizontal positions. DP soundings were measured relative to local water level and subsequently corrected to the survey datum. GP were processed to verify or survey the horizontal position and extents of observed features.

Significant DPs and GPs were exported from Pydro as an .xml to CARIS Notebook 3.0. Two separate stand alone .hob files were created from the Pydro .xml files. The files are named H11609_Updates.hob and H11609_Disprovals.hob. Remarks and recommendations from Pydro were imported to the "remrks" and "recomd" fields associated with each feature in CARIS Notebook. Additional processing was performed at the Branch in Caris Notebook to create the final survey deliverable data as H11609_Composite_Source.hob, H11609_Updates.hob and H11609_Disprovals.hob files.[16]

D.4.4 Shoreline Recommendations

The Hydrographer recommends that the shoreline and feature data provided in the CARIS Notebook data supersede and complement the RSD source shoreline provided with the Project CD.[17]

D.5 Prior Survey Comparison

A review of prior surveys H02501 and H03553 provided insight into how little data was used to chart this area. Charted depths are based on widely spaced lead-line reconnaissance data. Contours are apparently hand-drawn estimates connecting sparse soundings across wide areas of unknown bathymetry. Shoreline features, mostly rocks awash, are charted with cartographic license from descriptive data.

D.6 Aids to Navigation

There were no Aids to Navigation within the survey limits.[18]

D.7 Bottom Samples

Bottom samples were collected on 12 September 2006 (DN 256) and are included as S-57 seabed classifications (SBDARE objects) in the Pydro PSS and Caris Notebook data.[19] Limited sampling time focused on potential anchoring areas in less than 20 fathoms water depths (30 meters). Additional bottom classification can be assessed from digital terrain models and sonar backscatter intensity.

E. Supplemental Reports

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

Title	Date Sent	Office
Hydrographic Systems Readiness Review 2006	May 18, 2006	N/CS34
OPR-P158-FA-06 Data Acquisition and Processing Report		N/CS34
OPR-P158-FA-06 Horizontal & Vertical Control Report		N/CS34, N/OPS1

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

January 5, 2007

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

FROM: CDR Andrew L. Beaver, NOAA
Commanding Officer

TITLE: Approval of Hydrographic Survey H11609, OPR-P158-FA

As Chief of Party, I have ensured that standard field surveying and processing procedures were adhered to during acquisition and processing of hydrographic survey H11609 in accordance with the Hydrographic Manual, Fourth Edition; Hydrographic Survey Guidelines; Field Procedures Manual, March 2005 Version 1.1; and the NOS Hydrographic Surveys Specifications and Deliverables, as updated for June, 2006. Additional guidance was provided by applicable Hydrographic Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required. All data and reports are respectfully submitted to N/CS34, Pacific Hydrographic Branch.

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

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

David Sinson
Survey Manager

LTJG Michael Gonsalves
Field Operations Officer

CST Grant Froelich
Chief Survey Technician

Attachment

Revisions compiled during office process and certification

[1] Filed with the project records.
[2] Concur.
[3]Concur with clarification. DR does not explained the junctions between survey H11499 and H11610. During compilation both junctions were reviewed to the south with H11499 and to the Northwest with H11610 and data in the junction areas was found to be in agreement.
[4] Filed with the project records.
[5] Concur.
[6] Concur.
[7] Concur.
[8] Concur.
[9] Concur with clarification see Survey Acceptance Review. Checklist filed with hydrographic records.
[10] Filed with the project records.
[11] Tide note is appended to this report.
[12] Concur with clarification. Chart comparison during Hcell compilation was completed using the latest RNCs 16708 (27th Ed.; November 2008, 1:79,291), 16709 (24th Ed.; August 2008, 1:80,000), and 16700 (31st Ed.; January 2009, 1:200,000). Good agreement in general.
[13] Concur.
[14] Concur.
[15] Concur.
[16] Concur.
[17] Concur.
[18] Concur.
[19] Concur.

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : October 18, 2006

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-P158-FA-2006
HYDROGRAPHIC SHEET: H11609

LOCALITY: Sheep Bay, Orca Bay, AK
TIME PERIOD: December 31, 2005
September 7 - 21, 2006
TIDE STATION USED: 945-4050 Cordova, AK
Lat. 60° 33.4'N Long. 145° 45.3' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.559 meters

REMARKS: RECOMMENDED ZONING

Preliminary zoning is accepted as the final zoning for project OPR-P158-FA-2006, H11609, during the time period between December 31, 2005 and September 21, 2006.

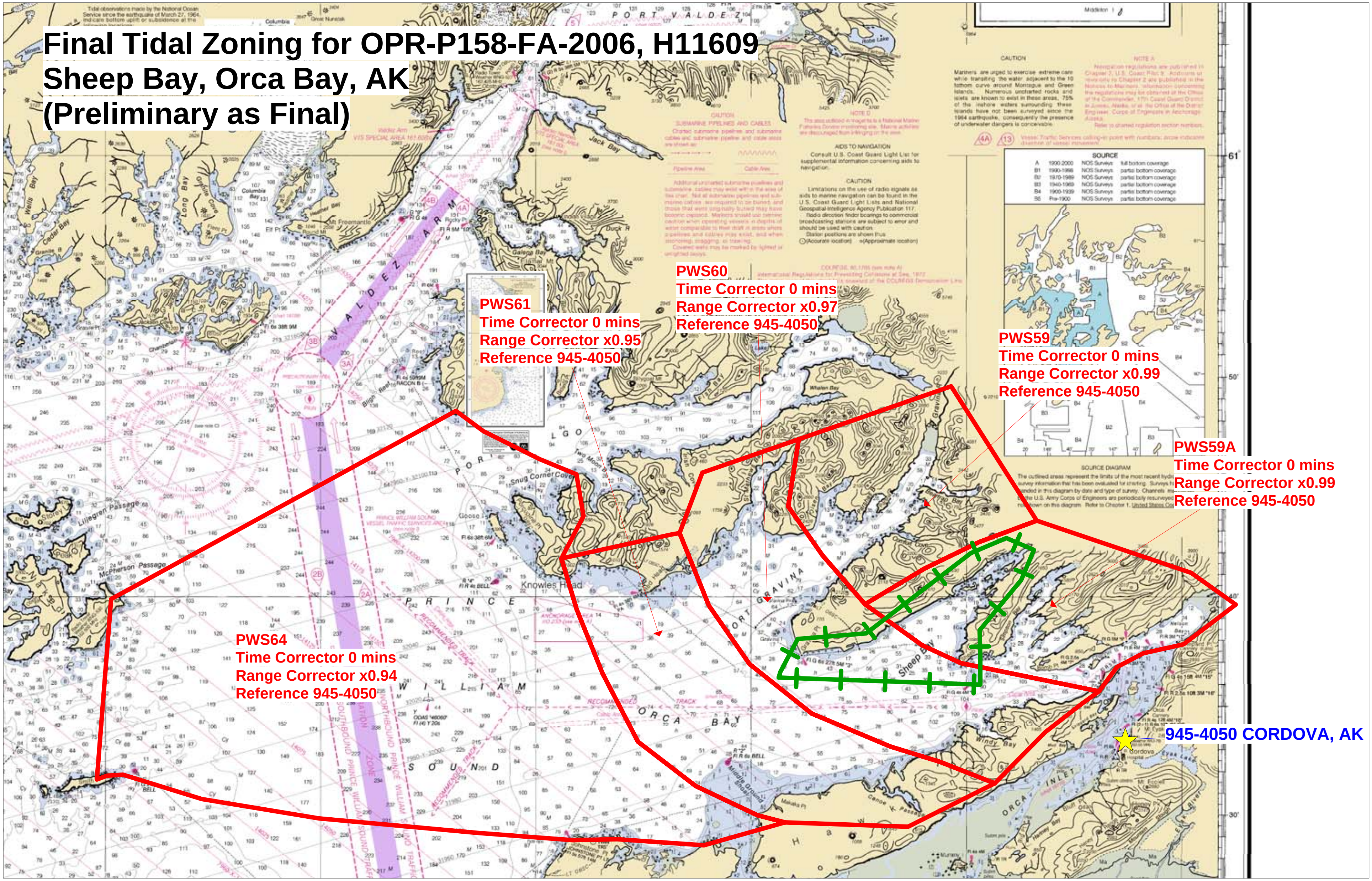
Please use the zoning file "P158FA2006CORP" submitted with the project instructions for OPR-P158-FA-2006. Zones PWS59A and PWS60 are the applicable zones for H11609.

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).

for

CHIEF, PRODUCT AND SERVICES DIVISION


Final Tidal Zoning for OPR-P158-FA-2006, H11609
Sheep Bay, Orca Bay, AK
(Preliminary as Final)
PWS61
Time Corrector 0 mins
Range Corrector x0.95
Reference 945-4050
PWS60
Time Corrector 0 mins
Range Corrector x0.97
Reference 945-4050
PWS59
Time Corrector 0 mins
Range Corrector x0.99
Reference 945-4050
PWS59A
Time Corrector 0 mins
Range Corrector x0.99
Reference 945-4050
PWS64
Time Corrector 0 mins
Range Corrector x0.94
Reference 945-4050
945-4050 CORDOVA, AK

H11609 Features Report

Registry Number: H11609

State: Alaska

Locality: Orca Bay

Sub-locality: Sheep Bay

Project Number: OPR-P158-FA-06

Survey Dates: 9 September 2006 - 21 September 2006

Items for survey H11609 associated with a detached or generic position that needed further discussion were flagged Report in Pydro. Investigation methods and recommendations were provided in the Remarks and Recommendations tabs.

Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
16708	27th	11/01/2008	1:79,291 (16708_1)	USCG LNM: 05/05/2009 (08/18/2009) CHS NTM: None (07/31/2009) NGA NTM: 06/02/2001 (08/29/2009)
16709	24th	08/01/2008	1:80,000 (16709_1)	USCG LNM: 05/05/2009 (08/18/2009) CHS NTM: None (07/31/2009) NGA NTM: 02/10/2007 (08/29/2009)
16700	29th	07/01/2004	1:200,000 (16700_1)	[L]NTM: ?
16013	29th	11/01/2003	1:969,761 (16013_1)	[L]NTM: ?
531	23rd	01/01/2006	1:2,100,000 (531_1)	[L]NTM: ?
500	8th	06/01/2003	1:3,500,000 (500_1)	[L]NTM: ?
50	6th	06/01/2003	1:10,000,000 (50_1)	[L]NTM: ?

* Correction(s) - *source: last correction applied (last correction reviewed--"cleared date")*

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude
1.1	12513	Rock	-0.40 m	60° 36' 59.6" N	146° 01' 08.5" W
1.2	12515	Rock	0.04 m	60° 37' 10.4" N	146° 01' 12.6" W
1.3	12518	Rock	-0.34 m	60° 37' 46.4" N	146° 00' 28.8" W
1.4	12519	Rock	-1.37 m	60° 38' 34.8" N	146° 00' 32.5" W
1.5	12111	Rock	-2.55 m	60° 38' 47.6" N	146° 00' 00.5" W
1.6	225201	Rock	-1.88 m	60° 39' 52.2" N	145° 58' 05.6" W

Generated by Pydro v9.9 (r2712) on Thu Oct 29 17:37:47 2009 [UTC]

1.7	225203	Rock	-0.89 m	60° 39' 53.7" N	145° 58' 31.8" W
1.8	225204	Rock	-0.74 m	60° 40' 05.7" N	145° 58' 25.8" W
1.9	225205	Rock	-1.62 m	60° 40' 30.1" N	145° 57' 55.9" W
1.10	225206	Rock	-1.77 m	60° 40' 59.7" N	145° 56' 20.2" W
1.11	225207	Rock	-3.19 m	60° 41' 16.8" N	145° 56' 17.9" W
1.12	225208	Rock	-0.18 m	60° 41' 17.8" N	145° 56' 16.7" W
1.13	225209	Rock	-0.84 m	60° 41' 10.7" N	145° 56' 55.2" W
1.14	225210	Rock	0.37 m	60° 41' 11.1" N	145° 56' 56.5" W
1.15	225211	Rock	-0.33 m	60° 41' 06.7" N	145° 57' 02.9" W
1.16	225213	Rock	-0.12 m	60° 41' 13.0" N	145° 57' 19.6" W
1.17	225214	Rock	0.87 m	60° 41' 16.0" N	145° 57' 05.5" W
1.18	225215	Rock	0.32 m	60° 41' 41.9" N	145° 55' 23.0" W
1.19	225216	Rock	1.36 m	60° 41' 42.0" N	145° 57' 17.3" W
1.20	1290/38	Rock	1.30 m	60° 36' 52.3" N	146° 00' 35.9" W
1.21	569/52	Rock	4.46 m	60° 37' 17.2" N	146° 01' 01.1" W
1.22	932/101	Rock	2.18 m	60° 37' 13.6" N	146° 01' 02.4" W
1.23	296/1	Rock	4.86 m	60° 37' 00.2" N	146° 01' 14.7" W
1.24	1674/1	Rock	0.49 m	60° 37' 09.8" N	146° 01' 02.5" W
1.25	4205/82	Rock	5.59 m	60° 37' 30.3" N	146° 00' 45.8" W
1.26	737/36	Rock	3.33 m	60° 37' 40.6" N	146° 00' 39.0" W
1.27	76/91	Rock	3.99 m	60° 37' 40.2" N	146° 00' 42.2" W
1.28	426/3	Rock	5.57 m	60° 38' 30.4" N	146° 01' 02.0" W
1.29	444/101	Rock	5.45 m	60° 38' 31.7" N	146° 00' 43.5" W
1.30	1463/2	Rock	0.47 m	60° 41' 16.7" N	145° 57' 01.7" W
1.31	2784/13	Rock	7.32 m	60° 41' 36.9" N	145° 56' 57.6" W
1.32	682/2	Rock	7.66 m	60° 41' 22.1" N	145° 57' 25.0" W
1.33	1084/87	Rock	5.09 m	60° 41' 19.0" N	145° 57' 27.3" W
1.34	485/97	Rock	3.17 m	60° 39' 00.2" N	145° 59' 18.6" W
1.35	80/84	Rock	4.33 m	60° 39' 50.5" N	145° 58' 20.4" W
1.36	4975/10	Rock	4.97 m	60° 38' 48.9" N	146° 05' 58.6" W
1.37	200/82	Shoal	14.21 m	60° 38' 45.8" N	146° 00' 18.7" W
1.38	25115-UWTROC_SVY	Rock	-0.18 m	60° 36' 56.8" N	146° 00' 28.0" W
1.39	25214-UWTROC_SVY	Rock	-3.43 m	60° 37' 05.1" N	146° 00' 58.6" W
1.40	25120-UWTROC_SVY	Rock	-2.42 m	60° 37' 20.3" N	146° 00' 36.0" W
1.41	25213-LNDARE_SVY	Rock	-7.43 m	60° 37' 22.4" N	146° 00' 32.2" W
1.42	25212-UWTROC_SVY	Rock	0.56 m	60° 37' 22.6" N	146° 00' 24.1" W

1.43	25209-UWTROC_SVY	Rock	-1.48 m	60° 37' 43.6" N	146° 00' 23.9" W
1.44	25211-UWTROC_SVY	Rock	-3.00 m	60° 37' 34.8" N	146° 00' 43.2" W
1.45	25210-LNDARE_SVY	Rock	-4.53 m	60° 37' 40.1" N	146° 00' 30.4" W
1.46	25207-UWTROC_SVY	Rock	-1.06 m	60° 37' 46.6" N	146° 00' 25.8" W
1.47	25208-LNDARE_SVY	Rock	-5.57 m	60° 37' 46.3" N	146° 00' 21.5" W
1.48	25206-UWTROC_SVY	Rock	-2.25 m	60° 38' 30.9" N	146° 00' 13.1" W
1.49	25205-UWTROC_SVY	Rock	-1.77 m	60° 38' 33.9" N	146° 00' 09.5" W
1.50	25204-LNDARE_SVY	Rock	-5.21 m	60° 38' 48.1" N	145° 59' 46.3" W
1.51	25203-UWTROC_SVY	Rock	-3.51 m	60° 39' 23.7" N	145° 59' 09.4" W
1.52	25319-UWTROC_SVY	Rock	-3.52 m	60° 39' 30.8" N	145° 59' 00.8" W
1.53	25320-UWTROC_CFF	Rock	-3.06 m	60° 38' 49.9" N	146° 06' 18.0" W
1.54	25314-UWTROC_SVY	Rock	-3.23 m	60° 41' 04.6" N	145° 56' 19.1" W
1.55	25315-LNDARE_SVY	Rock	-5.22 m	60° 41' 05.8" N	145° 56' 32.3" W
1.56	25316-LNDARE_SVY	Rock	-4.65 m	60° 41' 08.4" N	145° 56' 58.5" W
1.57	25313-UWTROC_SVY	Rock	-3.76 m	60° 41' 51.0" N	145° 55' 05.1" W
1.58	25311-LNDARE_SVY	Rock	-6.77 m	60° 41' 57.3" N	145° 55' 18.4" W
1.59	25312-UWTROC_SVY	Rock	-3.81 m	60° 41' 51.3" N	145° 55' 12.2" W
1.60	25301-UWTROC_SVY	Rock	-0.59 m	60° 40' 10.6" N	146° 00' 18.0" W
1.61	25302-UWTROC_SVY	Rock	-0.61 m	60° 40' 11.9" N	146° 00' 12.7" W
1.62	25303-UWTROC_SVY	Rock	-1.44 m	60° 40' 13.8" N	146° 00' 24.7" W
1.63	25304-UWTROC_SVY	Rock	-0.25 m	60° 40' 17.7" N	146° 00' 43.8" W
1.64	25310-LNDARE_SVY	Rock	-4.46 m	60° 40' 45.7" N	145° 58' 20.3" W
1.65	25305-UWTROC_SVY	Rock	1.50 m	60° 40' 19.9" N	146° 00' 37.4" W
1.66	25306-LNDARE_SVY	Rock	-4.62 m	60° 40' 27.7" N	146° 00' 18.7" W
1.67	25307-UWTROC_SVY	Rock	-0.85 m	60° 40' 30.5" N	146° 00' 02.6" W
1.68	25308-UWTROC_SVY	Rock	-2.29 m	60° 40' 42.3" N	145° 59' 06.4" W
1.69	25309-UWTROC_SVY	Rock	-3.80 m	60° 40' 34.5" N	145° 58' 52.5" W
1.70	25318-LNDARE_SVY	Rock	-9.08 m	60° 40' 12.8" N	145° 58' 29.1" W
1.71	25317-LNDARE_SVY	Rock	-6.15 m	60° 40' 22.0" N	145° 58' 07.2" W
1.72	26301-UWTROC_SVY	Rock	-2.77 m	60° 40' 00.6" N	145° 58' 16.8" W
1.73	26302-LNDARE_SVY	Rock	-6.81 m	60° 40' 13.3" N	145° 58' 12.7" W
1.74	26303-LNDARE_SVY	Rock	-6.82 m	60° 40' 07.9" N	145° 58' 26.0" W
1.75	26401-UWTROC_SVY	Rock	-1.22 m	60° 40' 20.8" N	146° 01' 14.8" W
1.76	26421_SVY_UWTROC	Rock	-3.80 m	60° 40' 39.4" N	146° 00' 08.7" W
1.77	26402-UWTROC_SVY	Rock	-2.13 m	60° 40' 48.0" N	145° 59' 46.3" W
1.78	26403-UWTROC_SVY	Rock	-1.96 m	60° 40' 52.0" N	145° 59' 29.0" W

1.79	26404-UWTROC_SVY	Rock	-1.58 m	60° 40' 33.2" N	145° 59' 41.8" W
1.80	26405-LNDARE_SVY	Shoal	-5.68 m	60° 40' 15.1" N	146° 00' 03.6" W
1.81	Verified_SVY_LNDARE	GP	[None]	60° 38' 19.5" N	145° 59' 55.8" W
1.82	Verified_SVY_LNDARE	GP	[None]	60° 38' 10.8" N	146° 00' 04.5" W
1.83	Verified_SVY_OBSTRN	Obstruction	[None]	60° 37' 38.0" N	146° 00' 30.1" W
1.84	Verified_CFF_LNDARE	GP	[None]	60° 37' 17.2" N	146° 00' 52.9" W
1.85	Modify_SVY_OBSTRN	Obstruction	[None]	60° 37' 03.8" N	146° 00' 35.0" W
1.86	Verified_CFF_LNDARE	GP	[None]	60° 37' 02.5" N	146° 00' 58.2" W
1.87	Verified_SVY_LNDARE	GP	[None]	60° 38' 30.8" N	146° 00' 11.1" W
1.88	Verified_SVY_LNDARE	GP	[None]	60° 40' 14.4" N	146° 00' 04.0" W
1.89	Verified_SVY_LNDARE	GP	[None]	60° 40' 59.4" N	145° 58' 05.9" W
1.90	Verified_SVY_OBSTRN	Obstruction	[None]	60° 42' 01.0" N	145° 56' 01.2" W
1.91	Verified_SVY_LNDARE	GP	[None]	60° 41' 56.8" N	145° 55' 14.1" W
1.92	Modify_SVY_OBSTRN	Obstruction	[None]	60° 39' 54.7" N	145° 58' 24.6" W
2.1	12110	Rock	-0.23 m	60° 38' 36.8" N	146° 00' 26.5" W
2.2	OBSTRUCTION	AWOIS	[no data]	[no data]	[no data]
3.1	12511	Rock	0.27 m	60° 36' 52.5" N	146° 00' 30.0" W
3.2	225212	Rock	-0.32 m	60° 41' 04.8" N	145° 57' 25.3" W
3.3	225219	Rock	-0.60 m	60° 40' 46.5" N	145° 58' 49.9" W
3.4	383/10	Rock	1.25 m	60° 36' 52.5" N	146° 01' 22.8" W
3.5	1294/97	Rock	3.98 m	60° 38' 29.1" N	146° 01' 10.5" W
3.6	892/84	Rock	5.27 m	60° 40' 49.4" N	145° 58' 47.3" W
3.7	3533/96	Rock	4.69 m	60° 40' 51.3" N	145° 58' 42.3" W
3.8	1444/14	Shoal	6.87 m	60° 40' 51.5" N	145° 58' 33.0" W
3.9	4660/99	Rock	1.43 m	60° 41' 25.5" N	145° 57' 18.5" W
3.10	1145/1	Rock	0.78 m	60° 39' 45.2" N	145° 58' 47.0" W
3.11	925/90	Shoal	10.74 m	60° 39' 53.8" N	145° 59' 24.5" W
3.12	1090/33	Shoal	7.52 m	60° 40' 02.0" N	145° 58' 53.7" W
3.13	847/85	Rock	3.87 m	60° 38' 49.6" N	146° 05' 46.2" W
3.14	67/89	Rock	5.88 m	60° 40' 31.4" N	145° 58' 49.5" W

1 - New Features

1.1) 12513

Survey Summary

Survey Position: 60° 36' 59.6" N, 146° 01' 08.5" W

Least Depth: -0.40 m (= -1.32 ft = -0.219 fm = 0 fm 4.68 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:16:17.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / tb1251_g.mdb

Profile/Beam: 3/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/tb1251_g.mdb	3/1	0.00	000.0	Primary
TB1251_G.mdb	1	17.14	174.6	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

-.4m (500_1, 50_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 6:foul area

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.401 m

	VERDAT - 12:Mean lower low water
	WATLEV - 5:awash
Geo object 2:	Underwater rock / awash rock (UWTROC)
Attributes:	STATUS - 1:permanent
	TECSOU - 12:found by levelling
	VALSOU - -0.401 m
	VERDAT - 12:Mean lower low water
	WATLEV - 5:awash

Office Notes

Chart rock according to this survey.

1.2) 12515

Survey Summary

Survey Position: 60° 37' 10.4" N, 146° 01' 12.6" W

Least Depth: 0.04 m (= 0.11 ft = 0.019 fm = 0 fm 0.11 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:39:51.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / tb1251_g.mdb

Profile/Beam: 4/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/tb1251_g.mdb	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 0ft (531_1)

.0m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060908

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - 0.035 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart rock according to this survey.

1.3) 12518

Survey Summary

Survey Position: 60° 37' 46.4" N, 146° 00' 28.8" W

Least Depth: -0.34 m (= -1.12 ft = -0.186 fm = 0 fm 4.88 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:20:50.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / tb1251_g.mdb

Profile/Beam: 6/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk sme new reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/tb1251_g.mdb	6/1	0.00	000.0	Primary
TB1251_G.mdb	2	22.55	159.0	Secondary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

-.3m (500_1, 50_1)

S-57 Data

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

Attributes:

QUASOU - 1:depth known

RECDAT - 20060908

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.340 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart rock according to this survey.

1.4) 12519

Survey Summary

Survey Position: 60° 38' 34.8" N, 146° 00' 32.5" W

Least Depth: -1.37 m (= -4.49 ft = -0.748 fm = 0 fm 1.51 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:23:28.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / tb1251_g.mdb

Profile/Beam: 7/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk is sme new reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/tb1251_g.mdb	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 4ft (531_1)

-1.4m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060908

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.368 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart rock that covers and uncovers as a high point of reef with least depth of -0.7 fathoms.

1.5) 12111

Survey Summary

Survey Position: 60° 38' 47.6" N, 146° 00' 00.5" W

Least Depth: -2.55 m (= -8.37 ft = -1.395 fm = -1 fm 2.37 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:38:40.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / tb1251_g.mdb

Profile/Beam: 9/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk is hp new ldg

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/tb1251_g.mdb	9/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 2ft (531_1)

-2.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060908

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -2.551 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart rock that covers and uncovers according to this survey.

1.6) 225201

Survey Summary

Survey Position: 60° 39' 52.2" N, 145° 58' 05.6" W

Least Depth: -1.88 m (= -6.16 ft = -1.027 fm = -1 fm 0.16 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.15:39:14.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 1/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk is hp reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 0ft (531_1)

-1.9m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.878 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart new rock according to this survey.

1.7) 225203

Survey Summary

Survey Position: 60° 39' 53.7" N, 145° 58' 31.8" W

Least Depth: -0.89 m (= -2.92 ft = -0.487 fm = 0 fm 3.08 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.15:51:50.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 2/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk sme obstrn foul

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 3ft (531_1)

-.9m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.891 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart new rock that covers and uncovers as a high point of a foul area with the least depth of -0.5 fathoms.

1.8) 225204

Survey Summary

Survey Position: 60° 40' 05.7" N, 145° 58' 25.8" W

Least Depth: -0.74 m (= -2.44 ft = -0.407 fm = 0 fm 3.56 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:02:44.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 3/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 2ft (531_1)

-.7m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.744 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Do not chart rock because of other rocks and islets in the area.

1.9) 225205

Survey Summary

Survey Position: 60° 40' 30.1" N, 145° 57' 55.9" W

Least Depth: -1.62 m (= -5.32 ft = -0.886 fm = 0 fm 0.68 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:12:27.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 4/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 5ft (531_1)

-1.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.621 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart new rock that covers and uncovers with least depth of -0.9 fathoms.

1.10) 225206

Survey Summary

Survey Position: 60° 40' 59.7" N, 145° 56' 20.2" W

Least Depth: -1.77 m (= -5.79 ft = -0.966 fm = 0 fm 0.21 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:27:07.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 5/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash is hp reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 0ft (531_1)

-1.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.766 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart new rock that covers and uncovers with least depth of -1.0 fathoms.

1.11) 225207

Survey Summary

Survey Position: 60° 41' 16.8" N, 145° 56' 17.9" W

Least Depth: -3.19 m (= -10.46 ft = -1.744 fm = -1 fm 4.46 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:38:06.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 6/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk is sme of ledge

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 4ft (531_1)

-3.2m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.189 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new rock that covers and uncovers as a high point of a ledge with least depth of -1.7 fathoms.

1.12) 225208

Survey Summary

Survey Position: 60° 41' 17.8" N, 145° 56' 16.7" W

Least Depth: -0.18 m (= -0.60 ft = -0.100 fm = 0 fm 5.40 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:39:15.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 7/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 0ft (531_1)

-.2m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.182 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart new rock awash with least depth of -0.1 fathoms.

1.13) 225209

Survey Summary

Survey Position: 60° 41' 10.7" N, 145° 56' 55.2" W

Least Depth: -0.84 m (= -2.75 ft = -0.458 fm = 0 fm 3.25 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:48:09.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 8/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	8/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 2ft (531_1)

-.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.838 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Do not chart rock because of the scale

1.14) 225210

Survey Summary

Survey Position: 60° 41' 11.1" N, 145° 56' 56.5" W

Least Depth: 0.37 m (= 1.21 ft = 0.202 fm = 0 fm 1.21 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:50:37.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 9/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	9/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

.4m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - 0.370 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart rock according to this survey.

1.15) 225211

Survey Summary

Survey Position: 60° 41' 06.7" N, 145° 57' 02.9" W

Least Depth: -0.33 m (= -1.07 ft = -0.178 fm = 0 fm 4.93 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:52:24.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 10/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash is sme foul

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	10/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

-.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.326 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart new rock awash with the least depth of -0.2 fathoms.

1.16) 225213

Survey Summary

Survey Position: 60° 41' 13.0" N, 145° 57' 19.6" W

Least Depth: -0.12 m (= -0.39 ft = -0.065 fm = 0 fm 5.61 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:00:48.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 12/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash ext ledge

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	12/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 0ft (531_1)

-.1m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.119 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart rock according to this survey.

1.17) 225214

Survey Summary

Survey Position: 60° 41' 16.0" N, 145° 57' 05.5" W

Least Depth: 0.87 m (= 2.87 ft = 0.478 fm = 0 fm 2.87 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:05:20.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 13/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new sub rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	13/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 3ft (531_1)

.9m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - 0.874 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with a least depth of 0.5 fathoms.

1.18) 225215

Survey Summary

Survey Position: 60° 41' 41.9" N, 145° 55' 23.0" W

Least Depth: 0.32 m (= 1.06 ft = 0.176 fm = 0 fm 1.06 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:17:31.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 14/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk is sme ext ledge

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	14/1	0.00	000.0	Primary

Hydrographer Recommendations

revise MLLW to ext of rk position

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

.3m (500_1, 50_1)

S-57 Data

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

Attributes: RECDAT - 20060909

VALSOU - 0.322 m

WATLEV - 3:always under water/submerged

Office Notes

Chart rock at survey position

1.19) 225216

Survey Summary

Survey Position: 60° 41' 42.0" N, 145° 57' 17.3" W

Least Depth: 1.36 m (= 4.45 ft = 0.741 fm = 0 fm 4.45 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:49:05.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 15/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	15/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 4ft (531_1)

1.4m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - 1.355 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with the least depth of 0.7 fathoms.

1.20) 1290/38

Survey Summary

Survey Position: 60° 36' 52.3" N, 146° 00' 35.9" W

Least Depth: 1.30 m (= 4.25 ft = 0.709 fm = 0 fm 4.25 ft)

TPU (±1.96σ): **THU (TPEh)** ±0.982 m ; **TVU (TPEv)** ±0.153 m

Timestamp: 2006-257.17:40:27.488 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1736

Profile/Beam: 1290/38

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

least depth on rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1736	1290/38	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 4ft (531_1)

1.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 1.296 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not chart because of scale.

1.21) 569/52

Survey Summary

Survey Position: 60° 37' 17.2" N, 146° 01' 01.1" W

Least Depth: 4.46 m (= 14.63 ft = 2.438 fm = 2 fm 2.63 ft)

TPU (±1.96σ): **THU (TPEh)** ±0.987 m ; **TVU (TPEv)** ±0.153 m

Timestamp: 2006-257.18:15:35.873 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1812

Profile/Beam: 569/52

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

least depth on rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1812	569/52	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 2ft (531_1)

4.5m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 4.459 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with the least depth of 2.4 fathoms.

1.22) 932/101

Survey Summary

Survey Position: 60° 37' 13.6" N, 146° 01' 02.4" W

Least Depth: 2.18 m (= 7.15 ft = 1.191 fm = 1 fm 1.15 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.016 m ; **TVU (TPEv)** ±0.200 m

Timestamp: 2006-257.18:28:04.062 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1824

Profile/Beam: 932/101

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

least depth on rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1824	932/101	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

1fm 1ft (531_1)

2.2m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 2.179 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new rock that covers and uncovers with the least depth of 1.2 fathoms.

1.23) 296/1

Survey Summary

Survey Position: 60° 37' 00.2" N, 146° 01' 14.7" W

Least Depth: 4.86 m (= 15.94 ft = 2.656 fm = 2 fm 3.94 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.242 m ; **TVU (TPEv)** ±0.423 m

Timestamp: 2006-257.18:31:39.991 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1829

Profile/Beam: 296/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

sounding is least depth on rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1829	296/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 4ft (531_1)

4.9m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 4.857 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with the least depth of 2.7 fathoms.

1.24) 1674/1

Survey Summary

Survey Position: 60° 37' 09.8" N, 146° 01' 02.5" W

Least Depth: 0.49 m (= 1.59 ft = 0.266 fm = 0 fm 1.59 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.002 m ; **TVU (TPEv)** ±0.180 m

Timestamp: 2006-257.18:33:28.968 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1829

Profile/Beam: 1674/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

sounding is least depth on rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1829	1674/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

.5m (500_1, 50_1)

S-57 Data

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

Attributes:

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 0.486 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart rock according to this survey.

1.25) 4205/82

Survey Summary

Survey Position: 60° 37' 30.3" N, 146° 00' 45.8" W

Least Depth: 5.59 m (= 18.35 ft = 3.058 fm = 3 fm 0.35 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.001 m ; **TVU (TPEv)** ±0.173 m

Timestamp: 2006-257.19:53:12.616 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1939

Profile/Beam: 4205/82

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

least depth on subm rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1939	4205/82	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

3fm (16708_1, 16709_1, 16700_1, 16013_1)

3fm 0ft (531_1)

5.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 5.593 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with the least depth of 3.1 fathoms.

1.26) 737/36

Survey Summary

Survey Position: 60° 37' 40.6" N, 146° 00' 39.0" W

Least Depth: 3.33 m (= 10.94 ft = 1.823 fm = 1 fm 4.94 ft)

TPU (±1.96σ): **THU (TPEh)** ±0.985 m ; **TVU (TPEv)** ±0.154 m

Timestamp: 2006-257.19:58:10.844 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1954

Profile/Beam: 737/36

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

least depth on subm rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1954	737/36	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

1fm 5ft (531_1)

3.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 3.333 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not chart the submerged rock because of the scale.

1.27) 76/91

Survey Summary

Survey Position: 60° 37' 40.2" N, 146° 00' 42.2" W

Least Depth: 3.99 m (= 13.10 ft = 2.184 fm = 2 fm 1.10 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.004 m ; **TVU (TPEv)** ±0.180 m

Timestamp: 2006-257.20:02:25.349 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1959-1

Profile/Beam: 76/91

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

sounding is least depth on rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1959-1	76/91	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 1ft (531_1)

4.0m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 3.994 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with the least depth of 2.2 fathoms.

1.28) 426/3

Survey Summary

Survey Position: 60° 38' 30.4" N, 146° 01' 02.0" W

Least Depth: 5.57 m (= 18.26 ft = 3.044 fm = 3 fm 0.26 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.171 m ; **TVU (TPEv)** ±0.362 m

Timestamp: 2006-257.21:55:47.348 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-2152

Profile/Beam: 426/3

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

shoal depth on subm rock; revise depth curve

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-2152	426/3	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

3fm (16708_1, 16709_1, 16700_1, 16013_1)

3fm 0ft (531_1)

5.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 5.566 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not chart submerged rock due to scale.

1.29) 444/101

Survey Summary

Survey Position: 60° 38' 31.7" N, 146° 00' 43.5" W

Least Depth: 5.45 m (= 17.89 ft = 2.982 fm = 2 fm 5.89 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.105 m ; **TVU (TPEv)** ±0.302 m

Timestamp: 2006-257.22:14:33.892 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-2211

Profile/Beam: 444/101

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

shoal depth on subm rock; revise sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-2211	444/101	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

3fm (16708_1, 16709_1, 16700_1, 16013_1)

1fm 0ft (531_1)

5.5m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 5.453 m

VERDAT - 12:Mean lower low water

Office Notes

Chart new submerged rock with the least depth of 3.0 fathoms.

1.30) 1463/2

Survey Summary

Survey Position: 60° 41' 16.7" N, 145° 57' 01.7" W

Least Depth: 0.47 m (= 1.54 ft = 0.256 fm = 0 fm 1.54 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.018 m ; **TVU (TPEv)** ±0.204 m

Timestamp: 2006-261.18:37:20.844 (09/18/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-261 / 261-1833

Profile/Beam: 1463/2

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

see "office notes" tab

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-261/261-1833	1463/2	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

.5m (500_1, 50_1)

S-57 Data

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

Attributes: STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 0.468 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart shoal sounding as rock awash with least depth of 0.3 fathoms.

1.31) 2784/13

Survey Summary

Survey Position: 60° 41' 36.9" N, 145° 56' 57.6" W

Least Depth: 7.32 m (= 24.02 ft = 4.003 fm = 4 fm 0.02 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.083 m ; **TVU (TPEv)** ±0.265 m

Timestamp: 2006-261.19:41:22.349 (09/18/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-261 / 261-1933

Profile/Beam: 2784/13

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on submerged rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-261/261-1933	2784/13	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

4fm (16708_1, 16709_1, 16700_1, 16013_1)

4fm 0ft (531_1)

7.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 7.320 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with least depth of 4.0 fathoms.

1.32) 682/2

Survey Summary

Survey Position: 60° 41' 22.1" N, 145° 57' 25.0" W

Least Depth: 7.66 m (= 25.14 ft = 4.190 fm = 4 fm 1.14 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.406 m ; **TVU (TPEv)** ±0.543 m

Timestamp: 2006-261.22:35:31.351 (09/18/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-261 / 261-2232

Profile/Beam: 682/2

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

shoal sounding on submerged rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-261/261-2232	682/2	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

4 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

4fm 1ft (531_1)

7.7m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 7.663 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not chart because of scale. Chart according to Hcell.

1.33) 1084/87

Survey Summary

Survey Position: 60° 41' 19.0" N, 145° 57' 27.3" W

Least Depth: 5.09 m (= 16.71 ft = 2.784 fm = 2 fm 4.71 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.013 m ; **TVU (TPEv)** ±0.190 m

Timestamp: 2006-261.22:56:53.615 (09/18/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-261 / 261-2252

Profile/Beam: 1084/87

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

shoal depth on subm rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-261/261-2252	1084/87	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 4ft (531_1)

5.1m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 5.092 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with least depth of 2.8 fathoms.

1.34) 485/97

Survey Summary

Survey Position: 60° 39' 00.2" N, 145° 59' 18.6" W

Least Depth: 3.17 m (= 10.41 ft = 1.735 fm = 1 fm 4.41 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.009 m ; **TVU (TPEv)** ±0.189 m

Timestamp: 2006-263.17:38:04.974 (09/20/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-263 / 263-1734

Profile/Beam: 485/97

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

shoal depth on subm rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-263/263-1734	485/97	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

1fm 4ft (531_1)

3.2m (500_1, 50_1)

S-57 Data

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

Attributes:

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 3.173 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with least depth of 3.0 fathoms.

1.35) 80/84

Survey Summary

Survey Position: 60° 39' 50.5" N, 145° 58' 20.4" W

Least Depth: 4.33 m (= 14.21 ft = 2.368 fm = 2 fm 2.21 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.000 m ; **TVU (TPEv)** ±0.173 m

Timestamp: 2006-263.18:38:28.327 (09/20/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-263 / 263-1835

Profile/Beam: 80/84

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

shoal sounding on submerged rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-263/263-1835	80/84	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 2ft (531_1)

4.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 4.330 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Chart new submerged rock with least depth of 2.4 fathoms.

1.36) 4975/10

Survey Summary

Survey Position: 60° 38' 48.9" N, 146° 05' 58.6" W

Least Depth: 4.97 m (= 16.32 ft = 2.720 fm = 2 fm 4.32 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.260 m ; **TVU (TPEv)** ±0.473 m

Timestamp: 2006-261.21:09:52.333 (09/18/2006)

Survey Line: h11609 / fa_1018_reson8101 / 2006-261 / 261-2059-1

Profile/Beam: 4975/10

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

shoal depth on subm rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1018_reson8101/2006-261/261-2059-1	4975/10	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 4ft (531_1)

5.0m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 4.974 m

VERDAT - 12:Mean lower low water

Office Notes

Do not chart due to scale.

1.37) 200/82

Survey Summary

Survey Position: 60° 38' 45.8" N, 146° 00' 18.7" W

Least Depth: 14.21 m (= 46.61 ft = 7.768 fm = 7 fm 4.61 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.406 m ; **TVU (TPEv)** ±0.508 m

Timestamp: 2006-261.23:06:49.824 (09/18/2006)

Survey Line: h11609 / fa_1018_reson8101 / 2006-261 / 261-2306

Profile/Beam: 200/82

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

shoal sounding on a sumbmerged rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1018_reson8101/2006-261/261-2306	200/82	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

7 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

7fm 4ft (531_1)

14.2m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: EXPSOU - 2:shoaler than range of depth of the surrounding depth area

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VERDAT - 12:Mean lower low water

Office Notes

Chart submerged rock according to this survey.

1.38) 25115-UWTROC_SVY

Survey Summary

Survey Position: 60° 36' 56.8" N, 146° 00' 28.0" W

Least Depth: -0.18 m (= -0.59 ft = -0.098 fm = 0 fm 5.41 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.15:36:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 1/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	1/1	0.00	000.0	Primary

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 0ft (531_1)

-.2m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.180 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart new rock awash at survey position. remove charted rock closest to new rock

1.39) 25214-UWTROC_SVY

Survey Summary

Survey Position: 60° 37' 05.1" N, 146° 00' 58.6" W

Least Depth: -3.43 m (= -11.27 ft = -1.878 fm = -1 fm 5.27 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:04:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 2/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 5ft (531_1)

-3.4m (500_1, 50_1)

S-57 Data

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

Attributes:

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.434 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart new rock that covers and uncovers with least depth of -1.9 fathoms.

1.40) 25120-UWTROC_SVY

Survey Summary

Survey Position: 60° 37' 20.3" N, 146° 00' 36.0" W

Least Depth: -2.42 m (= -7.93 ft = -1.322 fm = -1 fm 1.93 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:30:07.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 3/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

chd rk is rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 2ft (531_1)

-2.4m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -2.418 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Do not chart, falls within foul area.

1.41) 25213-LNDARE_SVY

Survey Summary

Survey Position: 60° 37' 22.4" N, 146° 00' 32.2" W

Least Depth: -7.43 m (= -24.37 ft = -4.061 fm = -4 fm 0.37 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:32:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 4/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-4fm (16708_1, 16709_1, 16700_1, 16013_1)

-4fm 0ft (531_1)

-7.4m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Attributes: STATUS - 1:permanent

Office Notes

Do not chart, falls withing foul area. Chart area according to this survey.

1.42) 25212-UWTROC_SVY

Survey Summary

Survey Position: 60° 37' 22.6" N, 146° 00' 24.1" W

Least Depth: 0.56 m (= 1.85 ft = 0.308 fm = 0 fm 1.85 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:34:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 5/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 2ft (531_1)

.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - 0.564 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Do not chart, falls withing foul area. Chart area according to this survey.

1.43) 25209-UWTROC_SVY

Survey Summary

Survey Position: 60° 37' 43.6" N, 146° 00' 23.9" W

Least Depth: -1.48 m (= -4.87 ft = -0.811 fm = 0 fm 1.13 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:43:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 6/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 5ft (531_1)

-1.5m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.483 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock that covers and uncovers at survey position.

1.44) 25211-UWTROC_SVY

Survey Summary

Survey Position: 60° 37' 34.8" N, 146° 00' 43.2" W

Least Depth: -3.00 m (= -9.84 ft = -1.640 fm = -1 fm 3.84 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:45:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 7/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 4ft (531_1)

-3.0m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.000 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock that covers and uncovers with a least depth of -0.4 fathoms.

1.45) 25210-LNDARE_SVY

Survey Summary

Survey Position: 60° 37' 40.1" N, 146° 00' 30.4" W

Least Depth: -4.53 m (= -14.85 ft = -2.474 fm = -2 fm 2.85 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:48:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 8/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	8/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 3ft (531_1)

-4.5m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Attributes: STATUS - 1:permanent

Office Notes

Chart islet at survey position.

1.46) 25207-UWTROC_SVY

Survey Summary

Survey Position: 60° 37' 46.6" N, 146° 00' 25.8" W

Least Depth: -1.06 m (= -3.47 ft = -0.579 fm = 0 fm 2.53 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:52:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 9/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	9/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 3ft (531_1)

-1.1m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.058 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Do not chart rock because of foul area and other rocks and islets in the area.

1.47) 25208-LNDARE_SVY

Survey Summary

Survey Position: 60° 37' 46.3" N, 146° 00' 21.5" W

Least Depth: -5.57 m (= -18.26 ft = -3.044 fm = -3 fm 0.26 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:53:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 10/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	10/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-3fm (16708_1, 16709_1, 16700_1, 16013_1)

-3fm 0ft (531_1)

-5.6m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Attributes: STATUS - 1:permanent

Office Notes

Chart islet according to this survey.

1.48) 25206-UWTROC_SVY

Survey Summary

Survey Position: 60° 38' 30.9" N, 146° 00' 13.1" W

Least Depth: -2.25 m (= -7.39 ft = -1.231 fm = -1 fm 1.39 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:12:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 12/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	12/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 1ft (531_1)

-2.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -2.252 m

VERDAT - 12:Mean lower low water

Office Notes

Chart islet and height according to this survey.

1.49) 25205-UWTROC_SVY

Survey Summary

Survey Position: 60° 38' 33.9" N, 146° 00' 09.5" W

Least Depth: -1.77 m (= -5.81 ft = -0.969 fm = 0 fm 0.19 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:14:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 13/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	13/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

1fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 0ft (531_1)

-1.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 1:found by echo-sounder

VALSOU - -1.772 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock that covers and uncovers at survey position.

1.50) 25204-LNDARE_SVY

Survey Summary

Survey Position: 60° 38' 48.1" N, 145° 59' 46.3" W

Least Depth: -5.21 m (= -17.10 ft = -2.851 fm = -2 fm 5.10 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:51:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 14/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	14/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 5ft (531_1)

-5.2m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet and height as positioned by this survey.

1.51) 25203-UWTROC_SVY

Survey Summary

Survey Position: 60° 39' 23.7" N, 145° 59' 09.4" W

Least Depth: -3.51 m (= -11.52 ft = -1.920 fm = -1 fm 5.52 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.18:10:00.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / h11609_sl_points_dn251.mid

Profile/Beam: 15/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/h11609_sl_points_dn251.mid	15/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 5ft (531_1)

-3.5m (500_1, 50_1)

S-57 Data

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

Attributes:

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.512 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock that cover and uncovers at survey position. Delete charted rock nearest to new rock.

1.52) 25319-UWTROC_SVY

Survey Summary

Survey Position: 60° 39' 30.8" N, 145° 59' 00.8" W

Least Depth: -3.52 m (= -11.53 ft = -1.922 fm = -1 fm 5.53 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.15:30:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 1/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 5ft (531_1)

-3.5m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.515 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock according to this survey.

1.53) 25320-UWTROC_CFF

Survey Summary

Survey Position: 60° 38' 49.9" N, 146° 06' 18.0" W

Least Depth: -3.06 m (= -10.06 ft = -1.676 fm = -1 fm 4.06 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:01:05.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 2/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 4ft (531_1)

-3.1m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Geo object 2: Underwater rock / awash rock (UWTROC)

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.065 m

VERDAT - 12:Mean lower low water

Office Notes

Chart rock according to this survey.

1.54) 25314-UWTROC_SVY

Survey Summary

Survey Position: 60° 41' 04.6" N, 145° 56' 19.1" W

Least Depth: -3.23 m (= -10.60 ft = -1.766 fm = -1 fm 4.60 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:32:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 3/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 4ft (531_1)

-3.2m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.230 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock according to this survey. Remove rock closest to new rock

1.55) 25315-LNDARE_SVY

Survey Summary

Survey Position: 60° 41' 05.8" N, 145° 56' 32.3" W

Least Depth: -5.22 m (= -17.14 ft = -2.856 fm = -2 fm 5.14 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:33:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 4/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 5ft (531_1)

-5.2m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet at survey position.

1.56) 25316-LNDARE_SVY

Survey Summary

Survey Position: 60° 41' 08.4" N, 145° 56' 58.5" W

Least Depth: -4.65 m (= -15.25 ft = -2.542 fm = -2 fm 3.25 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:45:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 5/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 3ft (531_1)

-4.6m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey. remove charted rock nearest to new islet.

1.57) 25313-UWTROC_SVY

Survey Summary

Survey Position: 60° 41' 51.0" N, 145° 55' 05.1" W

Least Depth: -3.76 m (= -12.32 ft = -2.054 fm = -2 fm 0.32 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:29:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 6/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 0ft (531_1)

-3.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.756 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart islet according to this survey. remove rock closest to new islet.

1.58) 25311-LNDARE_SVY

Survey Summary

Survey Position: 60° 41' 57.3" N, 145° 55' 18.4" W

Least Depth: -6.77 m (= -22.21 ft = -3.702 fm = -3 fm 4.21 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:31:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 7/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-3 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-3fm 4ft (531_1)

-6.8m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey. remove rock closest to new islet.

1.59) 25312-UWTROC_SVY

Survey Summary

Survey Position: 60° 41' 51.3" N, 145° 55' 12.2" W

Least Depth: -3.81 m (= -12.51 ft = -2.084 fm = -2 fm 0.51 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:36:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 8/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	8/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 0ft (531_1)

-3.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.812 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock according to this survey. remove rock closest to new rock.

1.60) 25301-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 10.6" N, 146° 00' 18.0" W

Least Depth: -0.59 m (= -1.94 ft = -0.323 fm = 0 fm 4.06 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:25:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 9/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	9/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 2ft (531_1)

-.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12,13:found by levelling,swept by side-scan sonar

VALSOU - -0.591 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

Chart rock according to this survey.

1.61) 25302-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 11.9" N, 146° 00' 12.7" W

Least Depth: -0.61 m (= -1.99 ft = -0.331 fm = 0 fm 4.01 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:26:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 10/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	10/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 2ft (531_1)

-.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.606 m

VERDAT - 12:Mean lower low water

Office Notes

DP position conflicts with multibeam coverage, chart rock at ENC position with DP height.

1.62) 25303-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 13.8" N, 146° 00' 24.7" W

Least Depth: -1.44 m (= -4.71 ft = -0.785 fm = 0 fm 1.29 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:28:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 11/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	11/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 4ft (531_1)

-1.4m (500_1, 50_1)

S-57 Data

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

Attributes:

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.435 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock according to this survey. remove rock closest to new rock.

1.63) 25304-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 17.7" N, 146° 00' 43.8" W

Least Depth: -0.25 m (= -0.82 ft = -0.137 fm = 0 fm 5.18 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:29:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 12/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	12/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

-.2m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.250 m

VERDAT - 12:Mean lower low water

Office Notes

Chart rock awash at survey position.

1.64) 25310-LNDARE_SVY

Survey Summary

Survey Position: 60° 40' 45.7" N, 145° 58' 20.3" W

Least Depth: -4.46 m (= -14.65 ft = -2.441 fm = -2 fm 2.65 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:30:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 13/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	13/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 2ft (531_1)

-4.5m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey.

1.65) 25305-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 19.9" N, 146° 00' 37.4" W

Least Depth: 1.50 m (= 4.94 ft = 0.823 fm = 0 fm 4.94 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:32:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 14/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

subm rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	14/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 5ft (531_1)

1.5m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - 1.505 m

VERDAT - 12:Mean lower low water

Office Notes

Chart submerged rock at survey position.

1.66) 25306-LNDARE_SVY

Survey Summary

Survey Position: 60° 40' 27.7" N, 146° 00' 18.7" W

Least Depth: -4.62 m (= -15.16 ft = -2.526 fm = -2 fm 3.16 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:40:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 15/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	15/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 3ft (531_1)

-4.6m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet at survey position.

1.67) 25307-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 30.5" N, 146° 00' 02.6" W

Least Depth: -0.85 m (= -2.80 ft = -0.466 fm = 0 fm 3.20 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:42:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 16/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	16/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 3ft (531_1)

-.9m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.853 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Retain charted rock at 60-40-31.68 N, 146-00-05.03W. Do not chart this rock.

1.68) 25308-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 42.3" N, 145° 59' 06.4" W

Least Depth: -2.29 m (= -7.50 ft = -1.249 fm = -1 fm 1.50 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:50:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 17/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	17/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 1ft (531_1)

-2.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -2.285 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock that covers and uncovers at survey position. Remove charted rock closest to new rock.

1.69) 25309-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 34.5" N, 145° 58' 52.5" W

Least Depth: -3.80 m (= -12.47 ft = -2.079 fm = -2 fm 0.47 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:51:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 18/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	18/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 0ft (531_1)

-3.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.802 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart 1.2 submerged rock at 60-40-32.718N, 145-58-51.336W. Remove charted rock at 60-40-32.35N, 145-58-55.33W

1.70) 25318-LNDARE_SVY

Survey Summary

Survey Position: 60° 40' 12.8" N, 145° 58' 29.1" W

Least Depth: -9.08 m (= -29.78 ft = -4.963 fm = -4 fm 5.78 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.19:07:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 19/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	19/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-3fm (16708_1, 16709_1, 16700_1, 16013_1)

-5fm 0ft (531_1)

-9.1m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet at survey position.

1.71) 25317-LNDARE_SVY

Survey Summary

Survey Position: 60° 40' 22.0" N, 145° 58' 07.2" W

Least Depth: -6.15 m (= -20.18 ft = -3.363 fm = -3 fm 2.18 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.19:11:00.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-252 / h11609_sl_points_dn252.mid

Profile/Beam: 20/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_points_dn252.mid	20/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-3 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

-3fm 2ft (531_1)

-6.1m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet at survey position.

1.72) 26301-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 00.6" N, 145° 58' 16.8" W

Least Depth: -2.77 m (= -9.09 ft = -1.516 fm = -1 fm 3.09 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-263.19:25:00.000 (09/20/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-263 / h11609_sl_points_dn263.mid

Profile/Beam: 1/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

chd rk is rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-263/h11609_sl_points_dn263.mid	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 3ft (531_1)

-2.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -2.772 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Remove charted rock and chart rock positioned by this survey.

1.73) 26302-LNDARE_SVY

Survey Summary

Survey Position: 60° 40' 13.3" N, 145° 58' 12.7" W

Least Depth: -6.81 m (= -22.35 ft = -3.725 fm = -3 fm 4.35 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-263.19:29:00.000 (09/20/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-263 / h11609_sl_points_dn263.mid

Profile/Beam: 2/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

chd rk is rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-263/h11609_sl_points_dn263.mid	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-3 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-3fm 4ft (531_1)

-6.8m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet positioned by this survey.

1.74) 26303-LNDARE_SVY

Survey Summary

Survey Position: 60° 40' 07.9" N, 145° 58' 26.0" W

Least Depth: -6.82 m (= -22.38 ft = -3.730 fm = -3 fm 4.38 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-263.19:30:00.000 (09/20/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-263 / h11609_sl_points_dn263.mid

Profile/Beam: 3/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

chd rk is rk bare

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-263/h11609_sl_points_dn263.mid	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-3 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

-3fm 4ft (531_1)

-6.8m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet positioned by this survey.

1.75) 26401-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 20.8" N, 146° 01' 14.8" W

Least Depth: -1.22 m (= -4.01 ft = -0.669 fm = 0 fm 1.99 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-264.17:55:00.000 (09/21/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-264 / h11609_sl_points_dn264.mid

Profile/Beam: 1/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-264/h11609_sl_points_dn264.mid	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 4ft (531_1)

-1.2m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.223 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock as positioned by this survey.

1.76) 26421_SVY_UWTROC

Survey Summary

Survey Position: 60° 40' 39.4" N, 146° 00' 08.7" W

Least Depth: -3.80 m (= -12.46 ft = -2.077 fm = -2 fm 0.46 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-264.18:00:00.000 (09/21/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-264 / h11609_sl_points_dn264.mid

Profile/Beam: 2/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF rk bare is visual, visual reference for shoal across bay

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-264/h11609_sl_points_dn264.mid	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2fm (16708_1, 16709_1, 16700_1, 16013_1)

-2fm 0ft (531_1)

-3.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -3.798 m

VERDAT - 12:Mean lower low water

Office Notes

Chart rock that covers and uncovers at survey position.

1.77) 26402-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 48.0" N, 145° 59' 46.3" W

Least Depth: -2.13 m (= -6.98 ft = -1.163 fm = -1 fm 0.98 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-264.18:08:00.000 (09/21/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-264 / h11609_sl_points_dn264.mid

Profile/Beam: 3/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-264/h11609_sl_points_dn264.mid	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 1ft (531_1)

-2.1m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -2.126 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock that covers and uncovers at survey position.

1.78) 26403-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 52.0" N, 145° 59' 29.0" W

Least Depth: -1.96 m (= -6.42 ft = -1.070 fm = -1 fm 0.42 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-264.18:10:00.000 (09/21/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-264 / h11609_sl_points_dn264.mid

Profile/Beam: 4/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-264/h11609_sl_points_dn264.mid	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1fm (16708_1, 16709_1, 16700_1, 16013_1)

-1fm 0ft (531_1)

-2.0m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.957 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock that covers and uncovers at survey position.

1.79) 26404-UWTROC_SVY

Survey Summary

Survey Position: 60° 40' 33.2" N, 145° 59' 41.8" W

Least Depth: -1.58 m (= -5.19 ft = -0.866 fm = 0 fm 0.81 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-264.18:18:00.000 (09/21/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-264 / h11609_sl_points_dn264.mid

Profile/Beam: 5/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk covers/uncovers

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-264/h11609_sl_points_dn264.mid	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 5ft (531_1)

-1.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -1.583 m

VERDAT - 12:Mean lower low water

WATLEV - 4:covers and uncovers

Office Notes

Chart rock that covers and uncovers at survey position.

1.80) 26405-LNDARE_SVY

Survey Summary

Survey Position: 60° 40' 15.1" N, 146° 00' 03.6" W

Least Depth: -5.68 m (= -18.63 ft = -3.105 fm = -3 fm 0.63 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-264.19:00:00.000 (09/21/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-264 / h11609_sl_points_dn264.mid

Profile/Beam: 6/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

islet verified; chart cff and add height

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-264/h11609_sl_points_dn264.mid	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-3fm (16708_1, 16709_1, 16700_1, 16013_1)

-3fm 0ft (531_1)

-5.7m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet as position by this survey.

1.81) Verified_SVY_LNDARE

Survey Summary

Survey Position: 60° 38' 19.5" N, 145° 59' 55.8" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:08:06.000 (09/08/2006)

GP Dataset: H11609_SL_Lines_areas_dn251.MID

GP No.: 1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

islet looks like native sculpture

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn251.MID	1	0.00	000.0	Primary
h11609/fa_trimble_dpne_2/2006-251/h11609_sl_lines_pt_dn251.mid	6/1	1.49	334.1	Secondary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet as position by this survey.

1.82) Verified_SVY_LNDARE

Survey Summary

Survey Position: 60° 38' 10.8" N, 146° 00' 04.5" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:04:04.000 (09/08/2006)

GP Dataset: H11609_SL_Lines_areas_dn251.MID

GP No.: 2

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

islet verified, no height recorded

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn251.MID	2	0.00	000.0	Primary
h11609/fa_trimble_dpne_2/2006-251/h11609_sl_lines_pt_dn251.mid	5/1	0.00	000.0	Secondary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet as position by this survey.

1.83) Verified_SVY_OBSTRN

Survey Summary

Survey Position: 60° 37' 38.0" N, 146° 00' 30.1" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:50:02.000 (09/08/2006)

GP Dataset: H11609_SL_Lines_areas_dn251.MID

GP No.: 3

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

foul with rocks at MLLW

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn251.MID	3	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 6:foul area

TECSOU - 12:found by levelling

VERDAT - 12:Mean lower low water

Office Notes

Chart foul area according to this survey.

1.84) Verified_CFF_LNDARE

Survey Summary

Survey Position: 60° 37' 17.2" N, 146° 00' 52.9" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.16:14:09.000 (09/08/2006)

GP Dataset: H11609_SL_Lines_areas_dn251.MID

GP No.: 4

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

verified CFF islet.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn251.MID	4	0.00	000.0	Primary
h11609/fa_trimble_dpne_2/2006-251/h11609_sl_lines_pt_dn251.mid	3/1	2.84	169.0	Secondary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey.

1.85) Modify_SVY_OBSTRN

Survey Summary

Survey Position: 60° 37' 03.8" N, 146° 00' 35.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.15:40:09.000 (09/08/2006)

GP Dataset: H11609_SL_Lines_areas_dn251.MID

GP No.: 5

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

extend foul area with rocks

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn251.MID	5	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 6:foul area

QUASOU - 2:depth unknown

TECSOU - 12:found by levelling

VERDAT - 12:Mean lower low water

Office Notes

Chart foul area as depicted in the Hcell.

1.86) Verified_CFF_LNDARE

Survey Summary

Survey Position: 60° 37' 02.5" N, 146° 00' 58.2" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.15:52:05.000 (09/08/2006)

GP Dataset: H11609_SL_Lines_areas_dn251.MID

GP No.: 6

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF islet verified

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn251.MID	6	0.00	000.0	Primary
h11609/fa_trimble_dpne_2/2006-251/h11609_sl_lines_pt_dn251.mid	2/1	2.23	243.4	Secondary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey.

1.87) Verified_SVY_LNDARE

Survey Summary

Survey Position: 60° 38' 30.8" N, 146° 00' 11.1" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:51:08.000 (09/08/2006)

GP Dataset: H11609_SL_Lines_areas_dn251.MID

GP No.: 7

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF islet verified

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn251.MID	7	0.00	000.0	Primary
h11609/fa_trimble_dpne_2/2006-251/h11609_sl_lines_pt_dn251.mid	7/1	0.00	000.0	Secondary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey

1.88) Verified_SVY_LNDARE

Survey Summary

Survey Position: 60° 40' 14.4" N, 146° 00' 04.0" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:23:00.000 (09/09/2006)

GP Dataset: H11609_SL_Lines_areas_dn252.MID

GP No.: 1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

cff islet verified. add height from secondary point

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn252.MID	1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey.

1.89) Verified_SVY_LNDARE

Survey Summary

Survey Position: 60° 40' 59.4" N, 145° 58' 05.9" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-000.18:31:31.000 (00/30/2006)

GP Dataset: H11609_SL_Lines_areas_dn252.MID

GP No.: 2

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

cff islet verified; add height from secondary

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn252.MID	2	0.00	000.0	Primary
h11609/fa_trimble_dpne_1/2006-252/h11609_sl_lines_pt_dn252.mid	1/1	0.00	000.0	Secondary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey.

1.90) Verified_SVY_OBSTRN

Survey Summary

Survey Position: 60° 42' 01.0" N, 145° 56' 01.2" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:40:05.000 (09/09/2006)

GP Dataset: H11609_SL_Lines_areas_dn252.MID

GP No.: 3

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

foul with rocks at MLLW

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn252.MID	3	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes:

CATOBS - 6:foul area

NATCON - 3:loose boulders

QUASOU - 2:depth unknown

STATUS - 1:permanent

TECSOU - 12:found by levelling

VERDAT - 12:Mean lower low water

Office Notes

Chart foul area according to this survey.

1.91) Verified_SVY_LNDARE

Survey Summary

Survey Position: 60° 41' 56.8" N, 145° 55' 14.1" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.17:30:03.000 (09/09/2006)

GP Dataset: H11609_SL_Lines_areas_dn252.MID

GP No.: 4

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

cff islet verified; add height from secondary

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn252.MID	4	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Chart islet according to this survey.

1.92) Modify_SVY_OBSTRN

Survey Summary

Survey Position: 60° 39' 54.7" N, 145° 58' 24.6" W

Least Depth: [None]

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.19:00:04.000 (09/09/2006)

GP Dataset: H11609_SL_Lines_areas_dn252.MID

GP No.: 5

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

extend foul area and MLLW

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_SL_Lines_areas_dn252.MID	5	0.00	000.0	Primary
TR2_252.mdb	1	37.03	038.2	Secondary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: CATOBS - 6:foul area

TECSOU - 12:found by levelling

Office Notes

Chart foul area according to this survey

2 - AWOIS Features

2.1) 12110

Primary Feature for AWOIS Item #53490

Search Position: 60° 38' 38.6" N, 146° 00' 27.6" W

Historical Depth: [None]

Search Radius: 100

Search Technique: VS, VB, MB, S2

Technique Notes: CONDUCT SEARCH WITHIN THE LIMITS OF THE SURVEY.

History Notes:

T3649/1916--A ROCK IN POSITION LAT. 60/38/38.6N LONG. 146/00/27.6W (NAD 83) WAS IDENTIFIED AS COVERING AT HIGH TIDE. ENTERED 8/2006 BY JCA■■H11609/2006--A rock covering/uncovering with a least depth of -1.23 meters and the extents of a reef were surveyed in position 60°38'36.809" N , 146°00'26.529" W

Survey Summary

Survey Position: 60° 38' 36.8" N, 146° 00' 26.5" W

Least Depth: -0.23 m (= -0.74 ft = -0.123 fm = 0 fm 5.26 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.17:36:36.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / tb1251_g.mdb

Profile/Beam: 8/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

rk is hp new reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/tb1251_g.mdb	8/1	0.00	000.0	Primary
H11609_AWOIS	AWOIS # 53490	57.67	163.8	Secondary

Hydrographer Recommendations

Chart rock covers/uncovers with extents of reef

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 0ft (531_1)

-.2m (500_1, 50_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	QUASOU - 1:depth known
	RECDAT - 20060908
	STATUS - 1:permanent
	TECSOU - 12:found by levelling
	VALSOU - -0.225 m
	VERDAT - 12:Mean lower low water
	WATLEV - 4:covers and uncovers

Office Notes

Chart rock awash as a high point of a reef with least depth of -0.1 fathoms.

2.2) AWOIS #53496 - OBSTRUCTION

No Primary Survey Feature for this AWOIS Item

Search Position: 60° 40' 52.6" N, 145° 59' 01.5" W

Historical Depth: [None]

Search Radius: 75

Search Technique: VS, VB, MB, S2

Technique Notes: CONDUCT SEARCH WITHIN THE LIMITS OF THE SURVEY.

History Notes:

CHARTED POSITION LAT. 60/40/52.6N LONG. 145/59/01.5W (NAD83) OF ROCK AWASH IS OFFSET FROM SOURCE POSITION. CONDUCT SEARCH TO VERIFY OR DISPROVE CHARTED ROCK. (ENTERED 8/2006 BY ■■H11609/2006-- The AWOIS item and charted rock symbol were disproved with 100% multibeam echosounder coverage for the area. A dangerous rock awash with a least depth of -0.41 meters was discovered 264.3m 137.7° T at position 60°40'46.497" N, 145°58'49.887" W. The rock awash is the least depth of a shoal reef of rocks which extends across the entrance to Upper Sheep Bay.

Survey Summary

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

AWOIS at reported position disproved with 100% multibeam. Refer to feature 225219 for dangerous rk awash found 269.5m SE bearing 137.6°.

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11609_AWOIS	AWOIS # 53496	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

[None]

Office Notes

Awois 53496 was dissaproved with 100% multibeam coverage.

3 - Dangers to Navigation

3.1) 12511

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 36' 52.5" N, 146° 00' 30.0" W

Least Depth: 0.27 m (= 0.88 ft = 0.146 fm = 0 fm 0.88 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-251.15:39:39.000 (09/08/2006)

DP Dataset: h11609 / fa_trimble_dpne_1 / 2006-251 / tb1251_g.mdb

Profile/Beam: 1/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_1/2006-251/tb1251_g.mdb	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060908

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - 0.267 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

DTON has been applied to the chart.

3.2) 225212

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 41' 04.8" N, 145° 57' 25.3" W

Least Depth: -0.32 m (= -1.05 ft = -0.174 fm = 0 fm 4.95 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.16:56:27.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 11/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash is high point of reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	11/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart rk awash and danger circle

Cartographically-Rounded Depth (Affected Charts):

0fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 1ft (531_1)

-.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.319 m

VERDAT - 12:Mean lower low water

WATLEV - 5:awash

Office Notes

DTON has been applied to the chart.

3.3) 225219

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 40' 46.5" N, 145° 58' 49.9" W

Least Depth: -0.60 m (= -1.97 ft = -0.329 fm = 0 fm 4.03 ft)

TPU (±1.96σ): **THU (TPEh)** [None] ; **TVU (TPEv)** [None]

Timestamp: 2006-252.18:25:42.000 (09/09/2006)

DP Dataset: h11609 / fa_trimble_dpne_2 / 2006-252 / tr2_252.mdb

Profile/Beam: 16/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

new rk awash is hp of reef in charted channel

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_trimble_dpne_2/2006-252/tr2_252.mdb	16/1	0.00	000.0	Primary
TR2_252.mdb	2	8.29	151.0	Secondary

Hydrographer Recommendations

Chart rk awash and danger circle

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 2ft (531_1)

-.6m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

RECDAT - 20060909

STATUS - 1:permanent

TECSOU - 12:found by levelling

VALSOU - -0.601 m

WATLEV - 5:awash

Office Notes

DTON has been applied to the chart.

3.4) 383/10

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 36' 52.5" N, 146° 01' 22.8" W

Least Depth: 1.25 m (= 4.10 ft = 0.684 fm = 0 fm 4.10 ft)

TPU (±1.96σ): **THU (TPEh)** ±0.993 m ; **TVU (TPEv)** ±0.166 m

Timestamp: 2006-257.17:46:37.743 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-1743

Profile/Beam: 383/10

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on submerged rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-1743	383/10	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 4ft (531_1)

1.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 1.250 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

DTON has been applied to the chart.

3.5) 1294/97

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 38' 29.1" N, 146° 01' 10.5" W

Least Depth: 3.98 m (= 13.07 ft = 2.179 fm = 2 fm 1.07 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.025 m ; **TVU (TPEv)** ±0.211 m

Timestamp: 2006-257.21:53:31.625 (09/14/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-257 / 257-2147

Profile/Beam: 1294/97

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on submerged rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-257/257-2147	1294/97	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 1ft (531_1)

4.0m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 3.985 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

DTON has been applied to the chart.

3.6) 892/84

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 40' 49.4" N, 145° 58' 47.3" W

Least Depth: 5.27 m (= 17.30 ft = 2.883 fm = 2 fm 5.30 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.011 m ; **TVU (TPEv)** ±0.185 m

Timestamp: 2006-261.22:20:54.236 (09/18/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-261 / 261-2216

Profile/Beam: 892/84

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is shoal depth on rock reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-261/261-2216	892/84	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 5ft (531_1)

5.3m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 5.272 m

WATLEV - 3:always under water/submerged

Office Notes

This feature was no applied to the chart due to scale and other features.

3.7) 3533/96

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 40' 51.3" N, 145° 58' 42.3" W

Least Depth: 4.69 m (= 15.39 ft = 2.566 fm = 2 fm 3.39 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.047 m ; **TVU (TPEv)** ±0.236 m

Timestamp: 2006-261.22:42:21.236 (09/18/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-261 / 261-2232

Profile/Beam: 3533/96

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is shoal depth on rock reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-261/261-2232	3533/96	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ½fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 3ft (531_1)

4.7m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VERDAT - 12:Mean lower low water

Geo object 2:	Underwater rock / awash rock (UWTROC)
Attributes:	QUASOU - 1:depth known
	STATUS - 1:permanent
	TECSOU - 3:found by multi-beam
	VALSOU - 4.692 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

DTON has been applied to the chart.

3.8) 1444/14

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 40' 51.5" N, 145° 58' 33.0" W

Least Depth: 6.87 m (= 22.54 ft = 3.757 fm = 3 fm 4.54 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.054 m ; **TVU (TPEv)** ±0.236 m

Timestamp: 2006-261.22:47:30.479 (09/18/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-261 / 261-2242

Profile/Beam: 1444/14

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is shoal depth on rock reef

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-261/261-2242	1444/14	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

3 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

3fm 4ft (531_1)

6.9m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: EXPSOU - 2:shoaler than range of depth of the surrounding depth area

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VERDAT - 12:Mean lower low water

Office Notes

DTON has been applied to the chart.

3.9) 4660/99

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 41' 25.5" N, 145° 57' 18.5" W

Least Depth: 1.43 m (= 4.68 ft = 0.780 fm = 0 fm 4.68 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.004 m ; **TVU (TPEv)** ±0.183 m

Timestamp: 2006-261.22:54:26.065 (09/18/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-261 / 261-2242

Profile/Beam: 4660/99

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on submerged rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-261/261-2242	4660/99	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 4ft (531_1)

1.4m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 1.426 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

DTON has been applied to the chart.

3.10) 1145/1

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 39' 45.2" N, 145° 58' 47.0" W

Least Depth: 0.78 m (= 2.57 ft = 0.429 fm = 0 fm 2.57 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.021 m ; **TVU (TPEv)** ±0.207 m

Timestamp: 2006-263.18:16:24.524 (09/20/2006)

Survey Line: h11609 / fa_1010_reson8101 / 2006-263 / 263-1812

Profile/Beam: 1145/1

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on dangerous submerged rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1010_reson8101/2006-263/263-1812	1145/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart rk awash and danger circle

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

0fm 2ft (531_1)

.8m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 0.784 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

DTON has been applied to the chart.

3.11) 925/90

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 39' 53.8" N, 145° 59' 24.5" W

Least Depth: 10.74 m (= 35.23 ft = 5.871 fm = 5 fm 5.23 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.356 m ; **TVU (TPEv)** ±0.536 m

Timestamp: 2006-257.21:26:42.192 (09/14/2006)

Survey Line: h11609 / fa_1018_reson8101 / 2006-257 / 257-2122

Profile/Beam: 925/90

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on shoal rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1018_reson8101/2006-257/257-2122	925/90	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

5 ¾fm (16708_1, 16709_1, 16700_1, 16013_1)

5fm 5ft (531_1)

10.7m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: EXPSOU - 2:shoaler than range of depth of the surrounding depth area

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VERDAT - 12:Mean lower low water

Office Notes

DTON has been applied to the chart.

3.12) 1090/33

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 40' 02.0" N, 145° 58' 53.7" W

Least Depth: 7.52 m (= 24.68 ft = 4.113 fm = 4 fm 0.68 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.076 m ; **TVU (TPEv)** ±0.221 m

Timestamp: 2006-257.21:48:24.155 (09/14/2006)

Survey Line: h11609 / fa_1018_reson8101 / 2006-257 / 257-2145

Profile/Beam: 1090/33

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on submerged rock

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1018_reson8101/2006-257/257-2145	1090/33	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

4fm (16708_1, 16709_1, 16700_1, 16013_1)

4fm 0ft (531_1)

7.5m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: EXPSOU - 2:shoaler than range of depth of the surrounding depth area

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VERDAT - 12:Mean lower low water

Office Notes

DTON has been applied to the chart.

3.13) 847/85

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 38' 49.6" N, 146° 05' 46.2" W

Least Depth: 3.87 m (= 12.70 ft = 2.116 fm = 2 fm 0.70 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.072 m ; **TVU (TPEv)** ±0.276 m

Timestamp: 2006-261.20:47:53.795 (09/18/2006)

Survey Line: h11609 / fa_1018_reson8101 / 2006-261 / 261-2044

Profile/Beam: 847/85

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on submerged rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1018_reson8101/2006-261/261-2044	847/85	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2fm (16708_1, 16709_1, 16700_1, 16013_1)

2fm 0ft (531_1)

3.9m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 3.870 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

DTON has been applied to the chart.

3.14) 67/89

DANGER TO NAVIGATION

Survey Summary

Survey Position: 60° 40' 31.4" N, 145° 58' 49.5" W

Least Depth: 5.88 m (= 19.28 ft = 3.213 fm = 3 fm 1.28 ft)

TPU (±1.96σ): **THU (TPEh)** ±1.167 m ; **TVU (TPEv)** ±0.379 m

Timestamp: 2006-262.19:15:58.390 (09/19/2006)

Survey Line: h11609 / fa_1018_reson8101 / 2006-262 / 262-1915

Profile/Beam: 67/89

Charts Affected: 16708_1, 16709_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Sounding is least depth on submerged rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11609/fa_1018_reson8101/2006-262/262-1915	67/89	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

3 ¼fm (16708_1, 16709_1, 16700_1, 16013_1)

3fm 1ft (531_1)

5.9m (500_1, 50_1)

S-57 Data

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

Attributes: QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 5.876 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

DTON has been applied to the chart.

H11609 HCell Report

Fernando Ortiz, Hydrographic Contractor
Pacific Hydrographic Branch

Introduction

The primary purpose of the HCell is to provide new survey information in International Hydrographic Organization (IHO) format S-57 to update the largest scale ENCs and RNCs in the region: NOAA ENCs US4AK24M.000, and NOAA RNCs 16700, 16708 and 16709.

HCell compilation of survey H11609 used Office of Coast Survey HCell Specifications Version 3.1 with approved modifications to better align with PHB's HCell process and to meet MCD needs.

1. Compilation Scale

Depths for HCell H11609 were compiled to the largest scale chart in the region, 16708 (1:79,291). The density and distribution of soundings from H11609 were selected to emulate the distribution on these charts. Non-bathymetric features have been generalized to chart scale.

2. Soundings

A survey-scale sounding (SOUNDG) feature object layer was built from the 5.0-meter finalized surface, **H11609_Final_Combined_all_5m.hns**, in CARIS BASE Editor. A shoal-biased selection was made at 1:15,000 scale for the 16708 chart. These shoal-based selections were made using a Radius Table file with values shown in the table, below . The resultant sounding layer contains 26,297 depths ranging from 0 to 115.3 meters.

Upper limit (m)	Lower limit (m)	Radius (mm)
0	20	2.5
20	200	3.0
200	800	3.5

In CARIS BASE Editor soundings were manually selected from the high density sounding layers and imported into a new layer created to accommodate chart density depths. Manual selection was used to accomplish a density and distribution that closely represents the seafloor morphology.

3. Depth Areas and Depth Contours

3.1 Depth Areas

The extents of the highest resolution BASE Surface together with the extents of the soundings layer were used to digitize the hydrographic extents, which were then used to create the single, all encompassing depth area (DEPARE). One depth range, from 0 to 115.3 meters, was used for depth area objects. Upon conversion to NOAA charting units, the depth ranges are 0 to 63 Fathoms.

3.2 Depth Contours

Depth contours at the intervals on the largest scale chart are included in the H11609_SS HCell for MCD raster charting division to use for guidance in creating chart contours. The generalized metric and fathom equivalent contour values are shown in the table below.

Chart Contours in Fathoms	Metric Equivalent of Chart Contours	Metric Equivalent of Chart Contours NOAA Rounded	Actual Value of Chart Contours
3	5.4864	5.715	3.125
10	18.288	18.5166	10.125
50	91.44	92.8116	50.75

Contours delivered in the H11609_SS file have not been deconflicted against soundings and hydrography as all other features in the H11609_CS file and soundings in the H11609_SS have been. This results in conflicts between the H11609_SS file contours and HCell features at or near the survey limits. Conflicts with M_COVR, M_QUAL, and DEPARE objects with DEPCNT objects representing MLLW, should be expected.

4. Meta Areas

The following Meta object areas are included in HCell 11609:

M_QUAL
M_COVR

Meta area objects were constructed on the basis of the limits of the hydrography. (See 3.1 *Depth Areas*.)

5. Features

Shoreline features for H11609 were delivered from the field in 3 S57 files defining new features, modification to GC or charted features.

All features delivered in survey H11609 are included in H11609_CS.000.

11 bottom samples were collected during H11609. All charted bottom samples are included in the H11609 HCell.

There were 2 AWOIS items assigned to the survey. Refer to the AWOIS report.

There were 14 DTONs. All DTONS have been verified and applied to the latest charts. Refer to the Feature report.

The source of all features included in the H11609 HCell can be determined by the SORIND field.

6. S-57 Objects and Attributes

The *_CS HCell contains the following Objects:

$CSYMB	Blue notes
SLCONS	Shoreline Construction
DEPARE	All-encompassing depth area and intertidal areas
DEPCNT	Zero meter contours
LNDARE	Land Area
LNDELV	Land Elevation
M_COVR	Data coverage Meta object
M_QUAL	Data quality Meta object
OBSTRN	Obstructions
SBDARE	Bottom samples and rocky seabed areas
SOUNDG	Chart scale soundings
UWTROC	Rocks

The *_SS HCell contains the following Objects:

SOUNDG	Soundings at the survey scale density
DEPCNT	NOAA rounded contours at chart scale intervals

All S-57 Feature Objects in the *_CS HCell have been attributed as fully as possible based on information provided by the Hydrographer and in accordance with current guidance and the OCS HCell Specifications.

7. Blue Notes

Notes to the RNC and ENC chart compilers are included in the HCell as $CSYMB features with the Blue Note information located in the INFORM field. The NINFOM field is populated with the charting disposition.

8. Spatial Framework

8.1 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.

8.2 Horizontal and Vertical Units

DUNI, HUNI and PUNI are used to define units for depth, height and horizontal position in the chart units HCell, as shown below.

Chart Unit Base Cell Units:

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

During creation of the HCell in CARIS BASE Editor and CARIS S-57 Composer, all soundings and features are maintained in metric units with as high precision as possible. Depth units for soundings measured with sonar maintain millimeter precision. Depths on rocks above MLLW and heights on islets above MHW are typically measured with range finder, and therefore have lower precision. Units and precision are shown below.

BASE Editor and S-57 Composer Units:

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

- All depths deeper or equal to 11 fathoms display as whole fathoms.
- All depth units between 0 fathoms (MLLW) and 11 fathoms display as fathoms and whole feet.
- All depth units above MLLW (0 fathoms) to 2.0 feet above MHW display in feet for values that round to 5 feet or less, and in fathoms and feet above that.
- All height units (HUNI) which have been converted to charting units, and that are 2.0 feet above MHW and greater, are shown in feet.

In an ENC viewer fathoms and feet depth units (DUNI) display in the format X.YZZZ, where X is fathoms, Y is feet, and ZZZ is decimals of the foot. In an ENC viewer, heights (HUNI) display as whole feet.

9. Data Processing Notes

9.1 Junctions

Refer to section B.2 of the Descriptive Report for information on junction surveys.

10. QA/QC and ENC Validation Checks

H11609 was subjected to QA checks in S-57 Composer prior to exporting to the HCell base cell (000) file. The millimeter precision metric S-57 HCell was converted to a chart units and NOAA rounding applied. dKart Inspector was then used to further check the data set for conformity with the S-58 ver. 2 standard (formerly Appendix B.1 Annex C of the S-57 standard). All tests were run and warnings and errors investigated and corrected unless they have been approved by MCD as inherent to and acceptable for HCells.

11. Products

11.1 HSD, MCD and CGTP Deliverables

- H11609_CS, Chart Units, Soundings compiled to 1:79,291
- H11609_SS, Chart Units, Soundings compiled to 1:15,000
- H11609 Descriptive Report including end notes compiled during office processing and certification, the HCell Report, and supplemental items
- H11609 Survey Outline to populate SURDEX

11.2 File Naming Conventions

- Chart units base cell file, chart scale soundings — H11609_CS.000
- Chart units base cell file, survey scale soundings — H11609_SS.000
- Descriptive Report package — H11609_DR.pdf
- Survey outline — H11609_Outline.gml & *xsd

11.3 Software

CARIS HIPS Ver. 6.1	Inspection of Combined BASE Surfaces
CARIS BASE Editor Ver. 2.1	Creation of soundings and bathy-derived features, creation of the depth area, meta area objects, and Blue Notes; Survey evaluation and verification; Initial HCell assembly.
CARIS S-57 Composer Ver. 2.0	Final compilation of the HCell, correct geometry and build topology, apply final attributes, export the HCell, and QA.
CARIS GIS 4.4a	Setting the sounding rounding variable for conversion of the metric HCell to NOAA charting units with NOAA rounding.
CARIS HOM Ver. 3.3	Perform conversion of the metric HCell to NOAA charting units with NOAA rounding.
HydroService AS, dKart Inspector Ver. 5.1	Validation of the base cell file.
Newport Systems, Inc., Fugawi View ENC Ver.1.0.0.3	Independent inspection of final HCells using a COTS viewer.

12. Contacts

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

Fernando Ortiz, Hydrographic Contractor, PHB, Seattle, WA; 206-526-6883; Fernando.ortiz@noaa.gov.

APPROVAL SHEET
H11609

Initial Approvals:

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

2009.11.03
14:37:30
-08'00'

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.

Digitally signed by Charles R. Davies
DN: cn=Charles R. Davies, o=Pacific Hydrographic Branch, ou=NOAA,NOS,OCS, email=Russ.Davies@NOAA.GOV, c=US
Date: 2009.11.04 07:33:15 -08'00'

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

Gary C. Nelson
2009.11.04
08:07:50 -08'00'

J. Corey Allen
AWOIS and SURF Check Complete
2009.11.05 08:40:26 -05'00'