H11350

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. RA-10-18-05

Registry No. H11350

LOCALITY

State Alaska

General Locality Eastern Prince Willliam Sound

Sublocality Galena Bay

2005

CHIEF OF PARTY
CDR Guy T. Noll, NOAA

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DATE

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

H11350

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The hydrographic sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the office.

FIELD NO.
RA-10-18-05

State: Alaska

General Locality: Eastern Prince William Sound

Sublocality: Galena Bay

Scale: 1:10,000

Date of Survey: Sep 3 2005-Oct 3, 2005

Instructions Dated: 8/3/2005

Project No.: OPR-P132-RA-05

Vessel: Vessels 1006, 1015, 1016, 1101, 1103, 817

Chief of Party: CDR Guy T. Noll, NOAA

Surveyed by: Rainier personnel

Soundings taken by echo sounder: Reson SeaBat 8101, 8125, Seabeam/Elac 1180, Knudsen 320M, Ross

Graphic record scale: Rainier personnel

Graphic record checked by: Rainier personnel

Evaluation by: M. Foss

Automated plot by: HP Designjet 1050C

Verification by: M. Foss, R. Davies, K. Reser

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 H11350

Project OPR-P132-RA-05
Eastern Prince William Sound, AK
Galena Bay
Scale 1:10,000
September- October 2005
NOAA Ship RAINIER (s221)
Chief of Party: Commander Guy T. Noll, NOAA

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-P132-RA-05 dated August 3, 2005 and all other applicable direction[1], with the exception of deviations noted in this report. The survey area is Galena Bay, Prince William Sound, AK. This survey corresponds to sheet "G" in the sheet layout provided with the Letter Instructions. Parts of this area were designated Critical Priority 1 in the *2004 NOAA Hydrographic Survey Priorities*.

Except as noted below, one hundred percent multi-beam echosounder (MBES) coverage was obtained in the survey area in waters 8 meters and deeper. In depths less than 8 meters additional MBES coverage was obtained to acquire least depths over significant features or shoals, as appropriate for this survey. Vertical-beam echo sounder (VBES) data were acquired in depths from 4 to 20 meters to define the navigable area limit, aid in the planning of SWMB data acquisition, and provide inshore bathymetry in navigationally significant areas.

There are numerous areas around the shore of the bay where MBES coverage does not extend to the 8-meter contour. The shoreline of Galena Bay is generally very steep and rocky, the 8-meter contour is very close to shore, and it was not considered safe to extend coverage further inshore.[1]

Limited Shoreline Verification was performed for the survey.

Data acquisition was conducted from September 3 to October 3, 2005 (DN246 to 276).

[1] Standing Instructions for Hydrographic Surveys (March 2004), NOS Hydrographic Surveys Specifications and Deliverables (March 2004), OCS Field Procedures Manual for Hydrographic Surveying (March 2005), and all Hydrographic Surveys Technical Directives issued through November 2005.

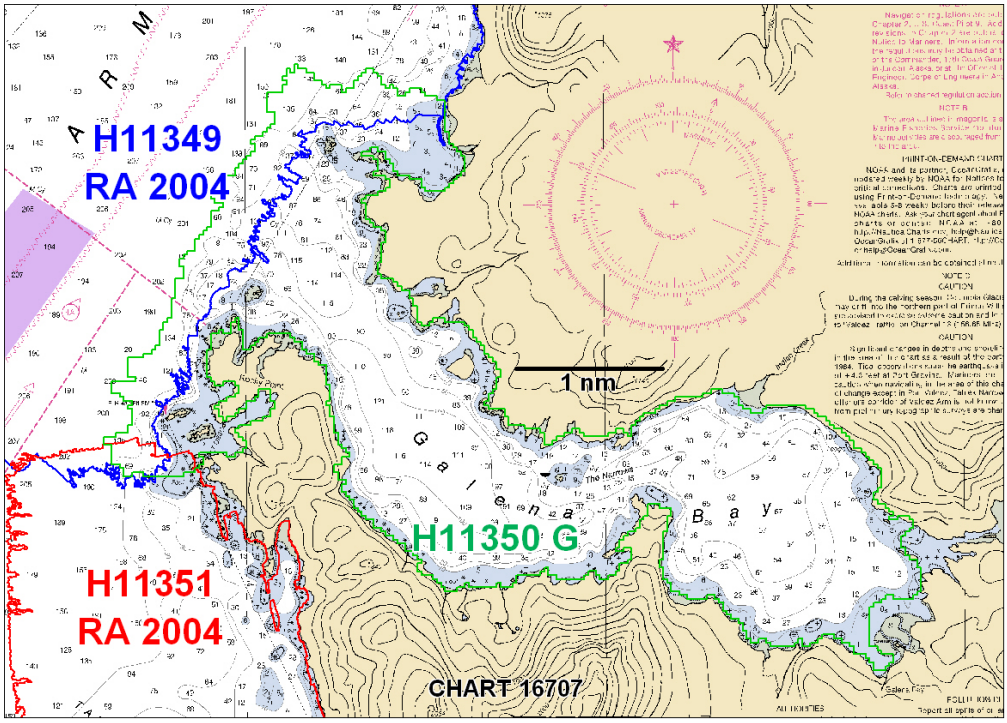


Figure 1. H11350 Survey Limits

B. DATA ACQUISTION AND PROCESSING

A complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods can be found in the *OP-P132-RA-05 Data Acquisition and Processing Report* (DAPR), submitted under separate cover.[2] Items specific to this survey, and any deviations from the aforementioned report are discussed in the following sections.

Final Approved Water Levels have been applied to this survey. See Section C. for additional information. [3]

B1. Equipment and Vessels

Data for this survey were acquired by the following vessels:

Hull Number	Name	Acquisition Type
1101 RA-1		Vertical-Beam Echosounder Detached Positions
1103 RA-2		Vertical-Beam Echosounder Detached Positions Bottom Samples
1016 RA-4		Multi-Beam Echosounder
1006 RA-5		Multi-Beam Echosounder
1015 RA-6		Multi-Beam Echosounder
817 RA-7		Vertical-Beam Echosounder Detached Positions

Table 1. Data Acquisition Vessels for H11350.

No unusual vessel configurations were used for data acquisition.[4]

B2. Quality Control

Crosslines

Shallow-Water Multibeam (SWMB) and Vertical Beam Echo Sounder (VBES) crosslines, excluding buffer and inshore developments, totaled 22.43 nautical miles, comprising 12% of SWMB hydrography. The main scheme bathymetry was manually compared to the XL nadir beams in CARIS subset mode and agreed well with differences generally less than a meter.

A statistical Quality Control Report has been conducted on data representative data collected with each system used on this survey and is included in the *OPR-P132-RA-05 DAPR*.

Junctions

The following contemporary surveys junction with H11350 (See Figure 1):

Registry #	Scale	Date	Junction side
H11349	1:10,000	2004	Northwest
H11351	1:10,000	2004	Southwest

Survey H11350 junctions well with these surveys. [5] A cursory comparison of the data using CARIS subset mode indicates good qualitative agreement, with no discernable vertical offset between the data sets. The survey junctions were also inspected using the MapInfo PSS tables. The junctions are primarily in depths over 150 meters. Differences are generally less than one meter. [6]

Data Quality Factors

The data acquired during this was generally of good quality and was processed in accordance with the procedures specified in the DAPR. There are limited instances of sound velocity issues, non-standard processing, and horizontal offset errors.

Refraction Artifacts

Selected lines from 1016_Dn260 (lns 382_2213, 380_2209, 383_2217, 381_2206) showed refraction errors and were filtered to exclude beams past 45 degrees from nadir. These lines were two miles from the cast site in a small bay. A closer (but over four hours distant) cast was applied but produced no improvement, and the original cast was reapplied.

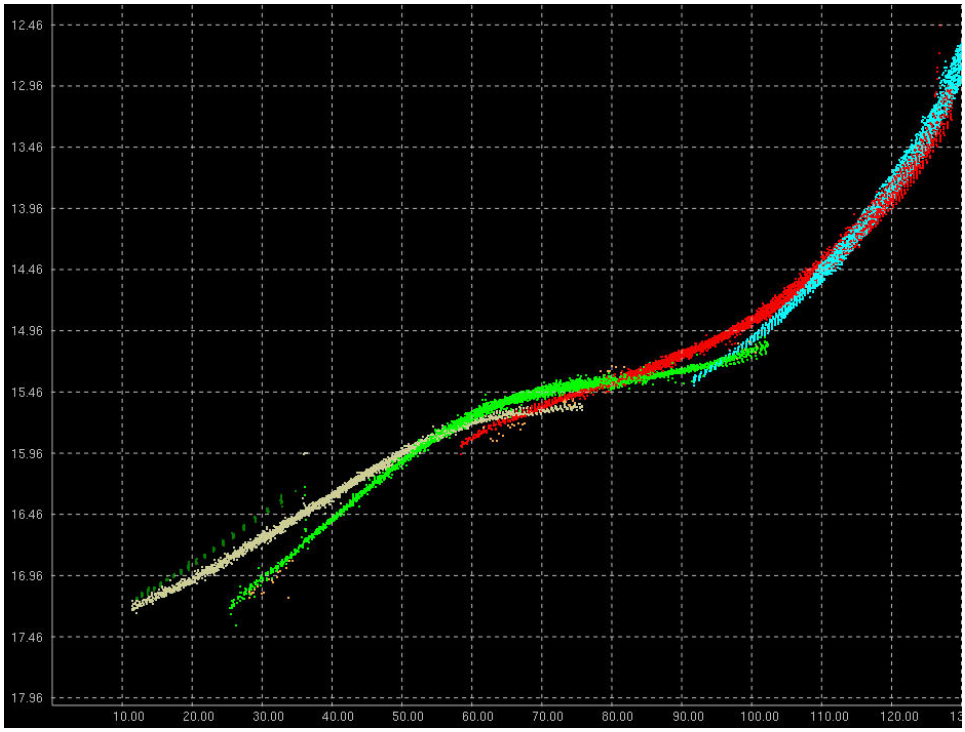


Figure 2. Sound velocity refraction errors in 1016_Dn260 before 45/45 filtering

There was heavy rain on the morning of September 28 (Dn271). The data from launch 1016 (RA-4) showed refraction errors of approximately 1 meter at the outer beams near the Millard Creek alluvial fan at the southeast corner of Galena Bay. The contemporary cast from launch 1006 (RA5) was applied to the 1016 data with some improvement. Selected lines from 1016_DN271 (lns: 316_2122, 317_2053, 318_2057, 319_2114, 328_2127) had substantial overlap and were further filtered to exclude beams past 50 degrees from nadir.

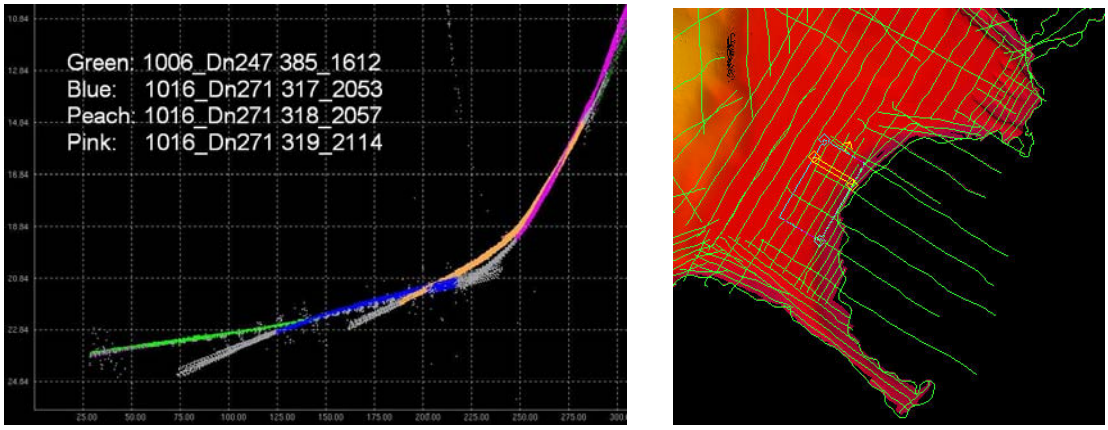


Figure 3. Sound velocity errors in launch 1016 (RA4) Dn271. 1006 (RA5) SV Cast data has been applied and beams filtered 50/50. Rejected data is shown in grey.

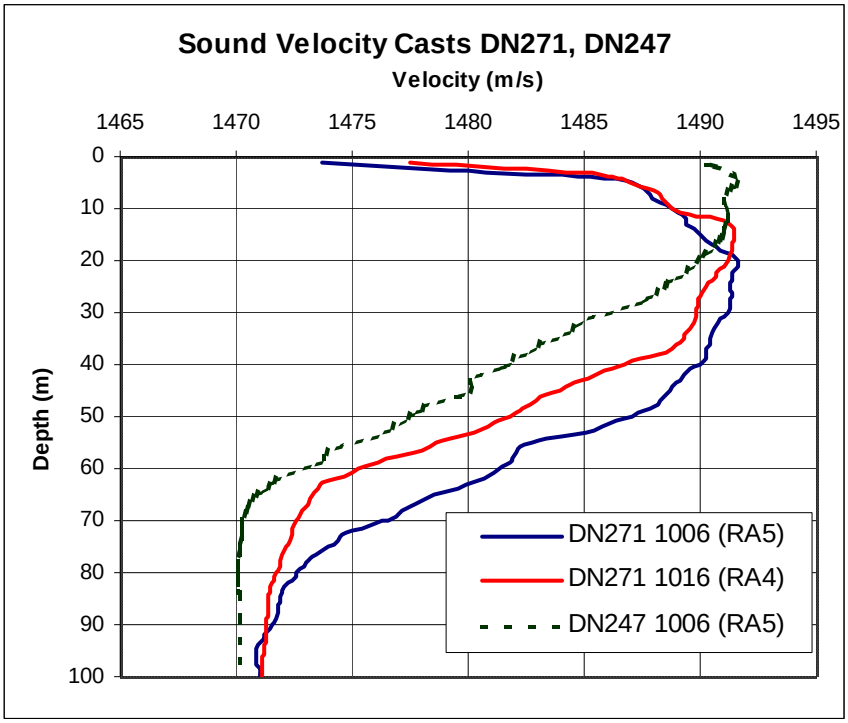


Figure 4. Sound velocity casts for DN271. Note the surface layer of low velocity fresh water from the heavy morning rains. DN247 data, acquired on an overcast day of light rains, is included for comparison.

Outer Beam Reacceptance

In three areas of steep topography, data from outer beams (past 60 degrees from nadir) were accepted on upslope cliff faces. These areas were located at: 60° 58’ 39.5” N 146° 43’ 17.9” W, 60° 58’ 39.3” N, 146° 43” 17.9” W, and 60° 58’ 15.3” N 146° 43’ 34.8” W.

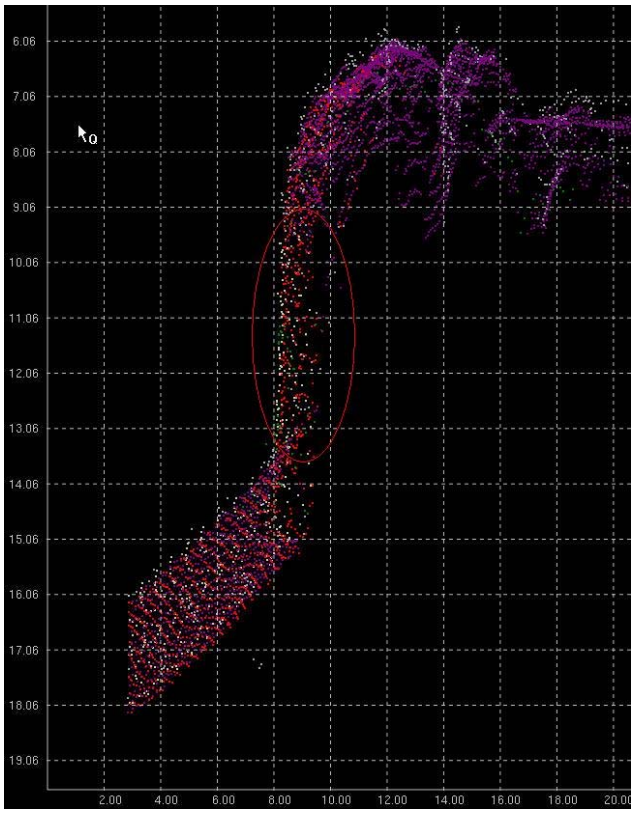


Figure 5. An example of accepted outer beams on upslope cliff face

VBES Operator Error

On September 5 (Dn248), all singlebeam echosounder data acquired by launch 1101 (RA1) were not recorded electronically. Selected soundings from the paper trace records were manually entered to capture the general trend of the seafloor. These VBES lines were used to define the navigable area and plan for multi-beam acquisition. In the area near the outlet of The Lagoon at the eastern extent of Galena Bay, this VBES bathymetry is the only available bathymetric source. If greater sounding density is desired in this area, additional soundings will need to be digitized from the paper trace. [7]

Horizontal Positioning Error

There is a horizontal offset error of approximately two to four meters observed in some of the data acquired by launch 1016 (RA4) on September 5 (Dn248), in the southwest corner of the sheet at position 60° 57' 07.4" N, 146° 45' 44.9" W. The lines shown below were run sequentially, but are nearly orthogonal. Line 227_2329 is the only one with a discernable offset with its neighbors. It is necessary for coverage however, and has been left in the data set despite the apparent horizontal positioning error. [8]

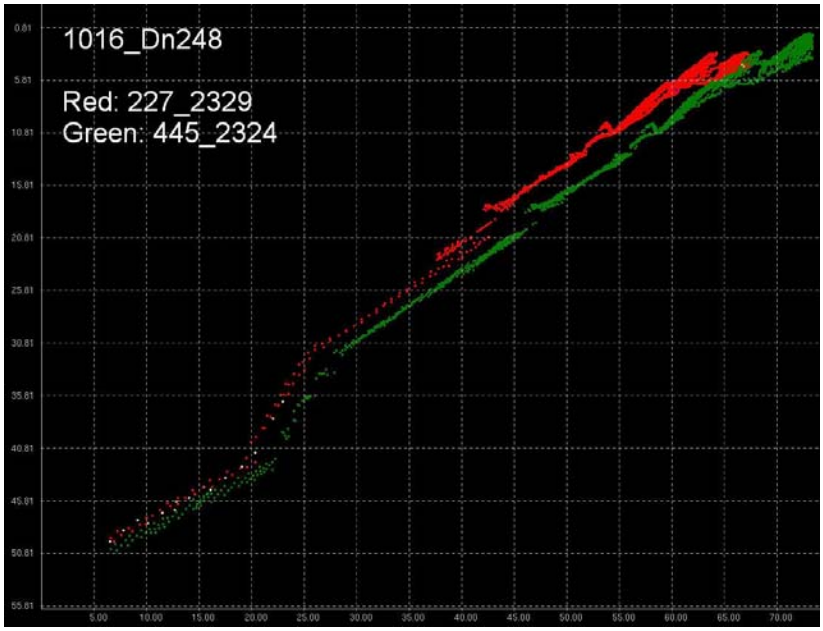


Figure 6. Horizontal offset of approximately four meters

B3. Data Reduction

Data reduction procedures for survey H11350 conform to those detailed in the *OPR-P132-RA-05 DAPR.*

B4. Data Representation

Though many BASE surfaces were used for the processing of H11350, the final submission is shown in figures 7 and 8.[9] The submission field sheets have fewer than $25x10^6$ nodes. An effort was made to avoid placing field sheet boundaries over areas of navigational interest. Eight half meter resolution field sheet were created to completely cover the 0-15m region of the survey. As the bathymetry is generally deep with steeply sloped shoreline, some of this area is a narrow strip along the shore.

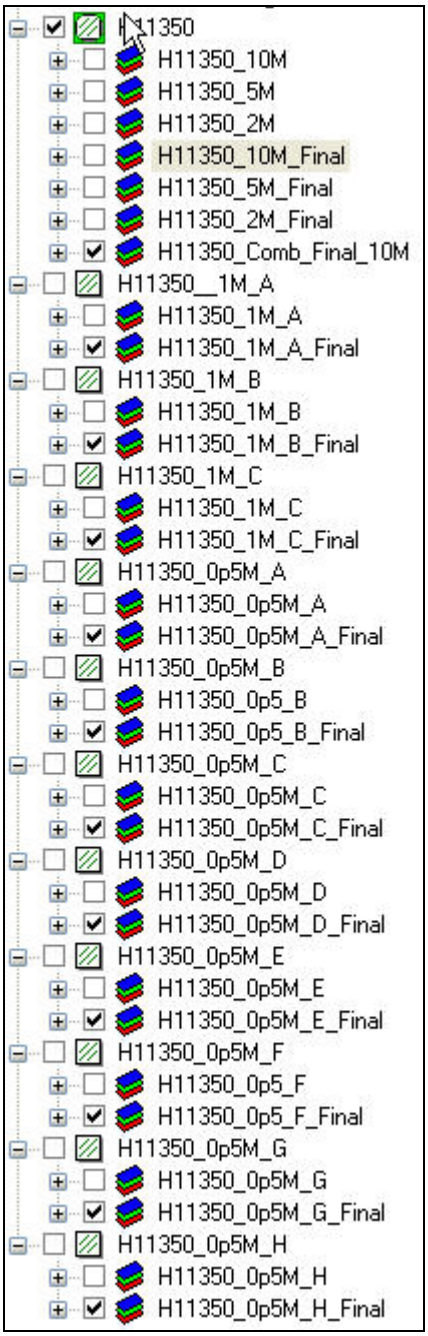


Figure 7. Field sheets and BASE surfaces submitted with H11350

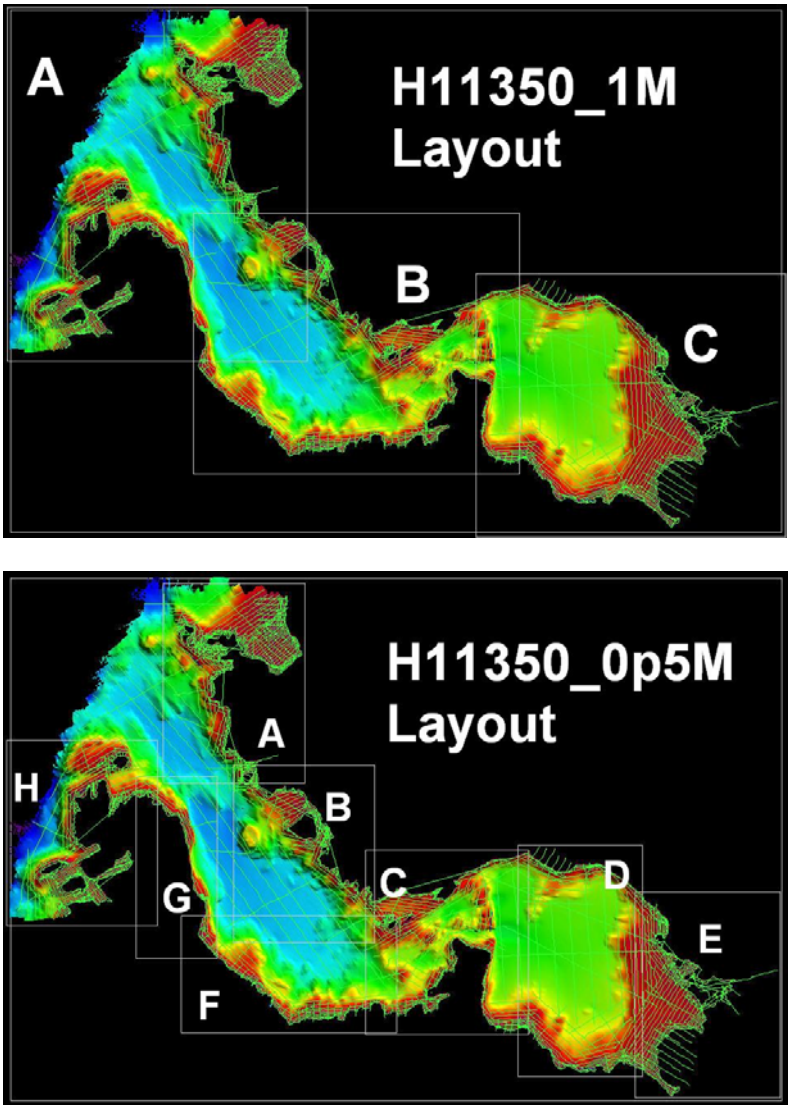


Figure 8. Layout of field sheets, BASE surfaces, and their resolutions for H11350 The 10, 5, and 2 meter field sheet and surface cover the entire survey area.

C. VERTICAL AND HORIZONTAL CONTROL

A complete description of horizontal and vertical control for survey H11350 can be found in the *OPR-P132-RA-05 Vertical Control Report*, submitted under separate cover.[10] A summary of horizontal and vertical control for this survey follows.

Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Differential GPS (DGPS) was the sole method of positioning. The differential corrector beacons utilized for this survey are given in Table 2.

Location	Frequency	Custodian	Distance	Priority
Cape Hinchinbrook	292 kHz	USCG	45nm	Primary
Potato Point	298 kHz	USCG	5nm	Backup

Table 2. Differential Corrector Sources for H11350

The Cape Hinchinbrook beacon was used as the primary corrector source for this survey despite the longer distance from the survey grounds because of the more robust view of the satellite constellation available at this site.

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 Valdez, AK (945-4240) served as control for datum determination and as the primary source for water level reducers for survey H11350.

RAINIER personnel installed two Sutron 8210 "bubbler" tide gauges at the same site for redundancy at the following subordinate station in accordance with the Letter Instructions (see table 3). This station is described in detail in the *OPR-P132-RA-05 Horizontal and Vertical Control Report*.

Station Name	Station Number	Type of Gauge	Date of Installation	Date of Removal
Columbia Bay Glacier 1, AK	944- 44601	30-day	August 31st, 2005	October 3rd, 2005
Columbia Bay Glacier 2, AK	944- 44602	30-day	August 31st, 2005	October 3rd, 2005

Table 3: Tide Stations installed by RAINIER personnel for H11350

There are two tide stations associated with Project OPR-P132-RA05. They are the permanent Valdez Station (945-4240) and the temporary station (945-4460) installed by RAINIER near the Columbia Glacier. The Columbia Glacier station has been designated the primary gauge in the final ZDF file. The Columbia Glacier tide gauge was disassembled and removed at 2048 on DN 276 (October 3, 2005). This survey has data that was acquired after the Columbia Glacier gauge was removed. This data consists of 35 lines of holiday and inshore coverage totaling 3.3 nm acquired by 1006 (RA-5) on the final day (DN 276) of survey

operations.

Caris HIPS 5.4 will not defer to the data from the secondary station (Valdez) unless there is a gap in the data from the primary station. Since the missing data from the primary station is at the end of the times series, there is no gap, and the program does not switch to the secondary gauge data. A "tide data out of range" error is produced when the tides are applied.

In order to solve this processing problem, a gap was created in the primary station data by appending a data point 24 hours after the last recorded data. This point was given a value of 20 meters, which is significantly different from the measured water levels. The 20-meter water level value was chosen to make certain there would be a detectable error if Caris interpolated between primary gauge data points and to alert any reviewer to the manual entry of the final data point.

This process is a workaround to a programming deficiency and is not an error in the acquired data set.

All data were reduced to MLLW using **final approved water levels** from station Columbia Bay, AK (945-4460) and Valdez, AK (945-1234) using the tide files 9454460.tid and 9454240.tid, and the time and height correctors in the zone corrector file H11350CORF.zdf[11]

Final approved water levels for H11350 were requested from CO-OPS on October 11, 2005, and received on Feburary 21, 2006. This documentation is included in Appendix IV. [12]

D. RESULTS AND RECOMMENDATIONS

D.1. Chart Comparison

D.1.a. Survey Agreement with Chart

Survey H11350 was compared with the following charts:

Chart	Scale	Edition and Date	Latest Notice to Mariners Applied
16700	1:200,000	29th Ed, July 2004	3/18/2006
16707	1:40,000	12th Ed, Dec 2005	3/18/2006
16708	1:79,291	26th Ed; Oct 2004	3/18/2006

Table 4. Charts compared with H11350

The soundings on the charts of Galena Bay are based on a lead line survey (H02627) conducted in 1902. The soundings acquired in 1902 were widely spaced, and in depths over 10 fathoms, were not tide corrected. This survey generally found good agreement with the charted depths at the charted locations. Depths were generally found to agree within 1 fathom in depths less than 40 fathoms and 2 fathoms in depths greater than 40 fathoms. In general, the survey found the alongshore contours to be closer to shore than the charted depth curves.[13]

There are many instances, however, where the current survey found shoaler soundings between charted soundings. This is most dramatic in The Narrows, where a rock of least depth of 4.8 fathoms was found between charted soundings of 13 and 26 fathoms. This sounding was reported as a DTON and has been printed on the new edition (12th) of chart 16707. The sounding has also been updated on the charts available for download from the NOAA raster chart server. See Section D.1.b. below for additional information on this feature.

The hydrographer recommends that the full bottom coverage bathymetry of H11350 supersede all prior survey soundings and charted depths in the common area. [14]

D.1.b. Dangers to Navigation

Two (2) Dangers to Navigation (DTON) were found on survey H11350. The first DTON is a rock in The Narrows and was reported to the Marine Chart Division via email on September 15, 2005. The second is a rocky outcrop in the bay at the northern extent of the sheet and was submitted to the Marine Chart Division via email on October 7, 2006. The original DTON submission packages are included in Appendix I. Although both features are fully described in the H11350 Survey Feature Report, [15] more complete information on the investigation of the first DTON, which could not be included in the Pydro PSS, is given below:

This DTON is a massive rock protruding from the seabed in The Narrows. The least depth of this rock was found to be 4.8 fathoms (8.9 m) between charted soundings of 13 and 26 fathoms. The rock was well covered with multibeam sonar, and was also investigated with a dive. The visibility was excellent (over 40 ft.) and the entire rock was investigated. The least depth returned from the dive was 5.1 fathoms (9.3 m). The sonar sounding set include 11 returns that are shallower than this depth, with 2 returns indicating a least depth of 4.8 fathoms (8.9m). The hydrographer believes the true depth of the rock is most likely 5.1 fathoms (9.3m), and the shallower sonar returns were caused by returns of weed or other objects close to the rock surface. However, the least depth of 4.8 fathoms (8.9m) has been retained in the data as a measure of safety. [16] The soundings, dive investigation, and 0.5 m BASE surface are shown below.

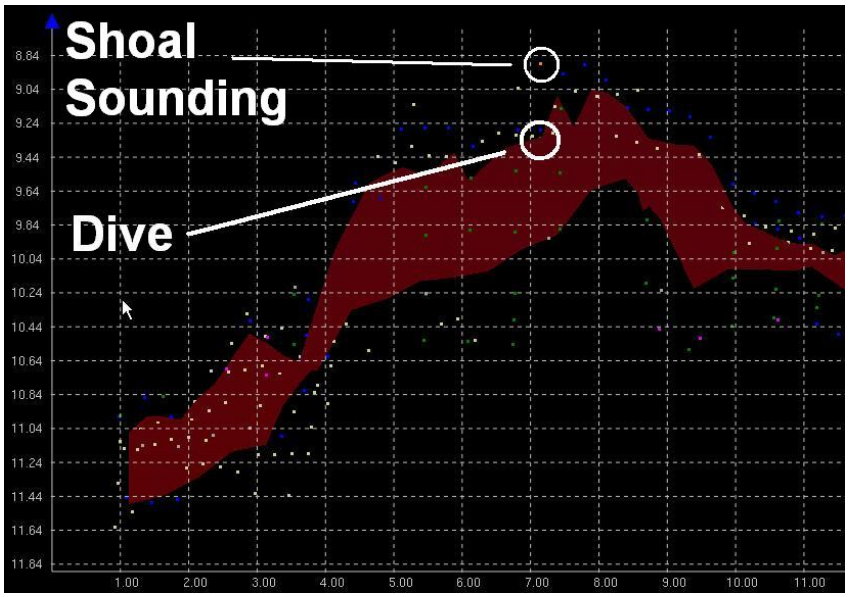


Figure 9. Soundings from DTON, shown with 0.5m BASE un-finalized surface. The dive investigation yielded a depth of 9.3m, the shallowest multi-beam sounding was 8.9m.

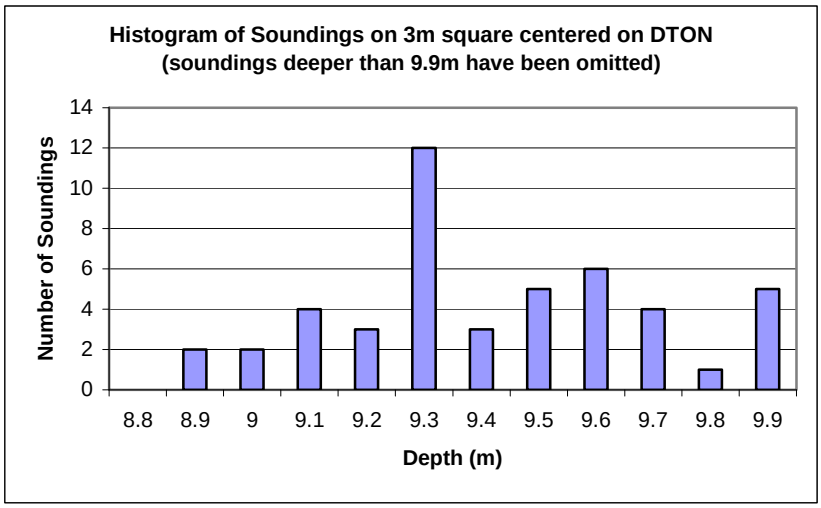


Figure 10. Distribution of sounding depths on rock in The Narrows. The most probable depth is 9.3m. This is the depth as determined by a dive investigation. The least depth of 8.9 m has been retained as a measure of safety.

D.1.c. Other Features

Automated Wreck and Obstruction Information System (AWOIS) Investigations

No AWOIS items fall the within the survey limits of H11350. [17]

Additional Items

Additional features investigated within the limits of H11350 are described in the Survey Feature Report in Appendix II. [18]

D.2. Additional Results

D.2.a. Prior Survey Comparison

Prior survey comparison with H11350 was not performed.

D.2.b. Shoreline Verification

Shoreline Source

Vector photogrammetric projects AK-0210 was supplied by N/NGS3 in the form of cartographic feature file GC-10540 (CFF). RAINIER conducted limited shoreline verification of the CFF. In addition, features shown on the current editions of charts 16707 and 16708 that were not depicted on the shoreline source document were digitized in MapInfo by RAINIER personnel and displayed in Hypack for field verification.

Shoreline Verification

Limited shoreline verification was conducted when water levels were less than 0.5m above MLLW, in accordance with the Standing Project Instructions and FPM section 2.4. Due to limited availability of low tide windows for shoreline verification on this project, on September 17 (DN260) some shoreline data in the northwest and southeast corners of the sheet were acquired outside the designated shoreline window (0530-0915 local time). The last data was collected by launch 1103 (RA2) at 1022 local (line 503_1922), at which time the water level was approximately 1.7m above MLLW.

Detached positions (DPs) taken during shoreline verification were recorded in HYPACK, on DP forms[19], and processed in Pydro. These indicate revisions to features and features not found on the verified shoreline. In addition, annotations describing shoreline were recorded on hard copy plots of digital shoreline. [20]

All shoreline data is submitted in Caris Notebook.hob files. [21] The session H11350_NTBK contains the following:

H11350_CFF_ Shoreline.HOB (original source data)
H11350_CFF_ShorelineHOB marker layer
H11350_CHD_Shoreline.HOB (digitized charted shoreline not seen in CFF)
H11350_CHD_ShorelineHOB marker layer
H11350_ADD_Ntbk.HOB (new features digitized in Notebook using DPs or VBES)
H11350_ADD_NtbkHOB marker layer
H11350_MODIFY_Ntbk.HOB (features modified in Notebook using DPs or VBES)

H11350_DELETE_Ntbk.HOB (original source or charted features that have been modified or deleted)
H11350_ADD_PYDRO.HOB (new features or bottom samples processed in Pydro)
H11350_MODIFY_PYDRO.HOB (modified features or bottom samples processed in Pydro)
H11350_DELETE_PYDRO.HOB (disprovals processed in Pydro)
H11350_NONE_PYDRO.HOB (verified charted or CFF source features processed in Pydro)

In many cases, DPs were taken to record the height of correctly positioned CFF or charted items. These DPs are annotated as "DP for height." These height DPs have been attributed as cartographic symbols in Pydro and are in the H11350_Modify_Pydro layer. Since final approved water levels have been applied to this survey, the height attribute of affected objects has been modified and the object moved to the H11350_Modify_Ntbk layer. The cartographic symbols referencing these "DPs for height" have been retained in the Notebook session for reference, but should not be misconstrued as corrected positions or new features.

The combination of *modify*, *add,* and *none* layers depict the shoreline as surveyed. The *delete* tables depict all disproved or modified features. The CFF and charted shoreline tables reflect unchanged features that were noted in the field.

Digital DP records from 1103 (RA2), DN274 were not recovered from the launch. However, the single beam data and other information recorded on the boat sheet have been transferred to Notebook.

Source Shoreline Changes and New Features

Along the southern shore of Galena Bay, numerous charted rocks were disproved at their charted positions. The hydrographer suggests that these rocks may be cartographically generalized representations of the numerous rocks found above MLLW along the shore, which is generally rocky in this area. These on-shore rocks are generally of no navigational significance and the hydrographer recommends they be removed from the chart.[22] Pydro GPs have been created at the location of these charted rocks, and the rocks have been moved to the Notebook Delete layer.

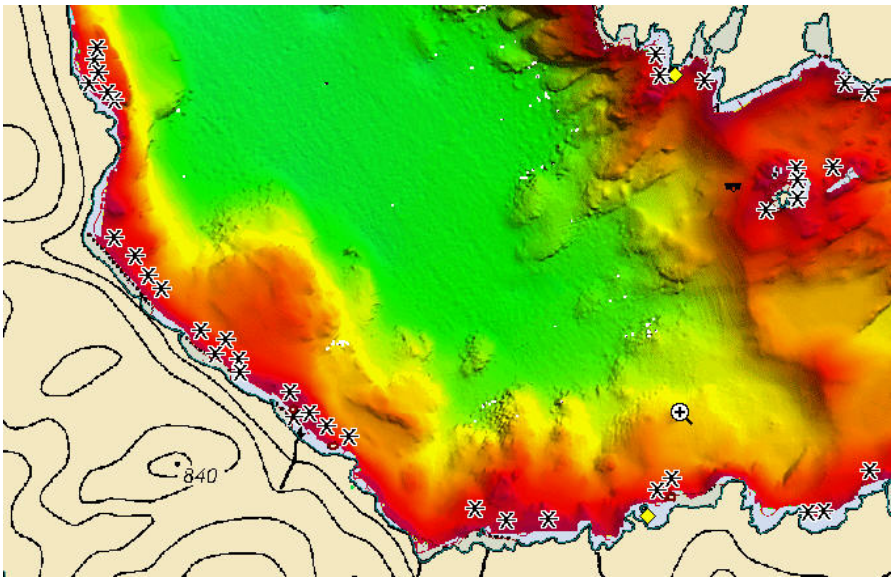


Figure 9. An example of charted (16707) rocks along the southern shore of Galena Bay. Many of these rocks have been disproved with 100% multi-beam and should be removed from the chart.

Throughout the bay there are numerous CFF rocks (both UWTROC and LNDARE) that are high points of ledges and reefs. In keeping with guidance included in the preliminary Pacific Hydrographic Branch S-57 Encoding Guide received on June 6, 2006, ledges have been manually digitized around the ledge extents, and, where a height of the ledge was recorded, the CFF rocks have been categorized as rocks (UWTROC) and moved to the Modify layer in Notebook. In cases where the ledge high points were not significant or conspicuous, and heights were not recorded, these CFF rocks have been moved to the Delete layer in Notebook.

Items for survey H11350 that require further discussion and are associated with a detached position, have been flagged "Report" in Pydro in H11350.pss. Investigation methods and recommendations are listed in the Remarks and Recommendation tabs. These features are included in the Survey Feature Report in Appendix I. [23]

Recommendations

The Hydrographer recommends that the shoreline as depicted in the Notebook .HOB files supersede and complement shoreline information compiled on the CFF and charts as described above.[24]

D.2.c. Aids to Navigation

Survey H11350 included one publicly maintained aid to navigation (ATON). The ATON's position was visually checked in the field against the digital raster chart. The ATON was found to serve its intended purpose.[25]

As discussed in the D.2.h. below, there are several private aids marking the entrance to Valdez pilot station. The hydrographer does not recommend charting these aids.[26]

D.2.d. Overhead features

There are no overhead features in survey H11350.

D.2.e. Submarine Cables and Pipelines

There are no submarine cables or pipelines charted within the limits of H11350. None were noted in survey data, with the exception of a small plastic pipe used to supply water to the pilot station Emerald Island. This is described in greater detail in Section D.2.h.

D.2.f. Ferry Routes

There are no charted ferry routes within the limits of H11350. The Alaska Marine Highway System operates scheduled service which skirts the edge of the survey area in Valdez Arm.

D.2.g. Bottom Samples

Two bottom samples were collected on H11350. One bottom sample was taken in the small cove on the north side of the outer bay (60° 57' 34.00" N, 146° 42' 07.51" W). This position coincides with the "hard" designation on chart 16707. The sample was comprised of "black pebbles with clay and shells." The second sample was taken from the cove north of the entrance to Galena Bay (60° 58' 49.34" N, 146° 42' 42.08" W). This sample was comprised of "dark gray pebbles and mud." There is no indication of bottom composition at this location on chart 16707. While no sample was taken at the position of the "hard" designation at the eastern extent of the bay, RAINIER successfully anchored near this position numerous times and found dark green mud. The hydrographer recommends removing this "hard" designation from the chart and replacing with "dark green mud" [27]

D.2.h Miscellaneous

Conspicuous Cabin

There are at least three small cabins located around Galena Bay. One is in ruins, one is hidden by thick brush, but the third is conspicuous enough to be navigationally significant. This cabin is located east of The Narrows near the mouth of Indian Creek, and is managed by the Tatitlek Corporation. The cabin is approx. 20 feet deep by 15 wide. It is in good condition, and shows signs of use, though it was uninhabited at time of inspection. The location of the front porch of the cabin was taken by handheld GPS as: 60° 57'14.3" N, 146° 37' 46.5" W. There is a small outhouse behind the structure. The buildings are located on the high ground between the main body of Indian Creek and a small tributary stream that feeds into Indian Creek from the east as the creek nears it mouth. The cabin is a conspicuous landmark for vessels transiting The Narrows enroute to the eastern arm of the bay.

Figure 10. Cabin near mouth of Indian Creek, looking east across the creek.

This cabin is in the same location as one of the structures mentioned in the 1902 Descriptive Report of H02627 as "a number of Indian Huts occupied during the salmon fishing time." The hydrographer recommend this cabin be charted as a general building (S-57 Object Class: BUISGL, Attributes: COLUR: 3, red; CONVIS: 1, conspicuous).[28]

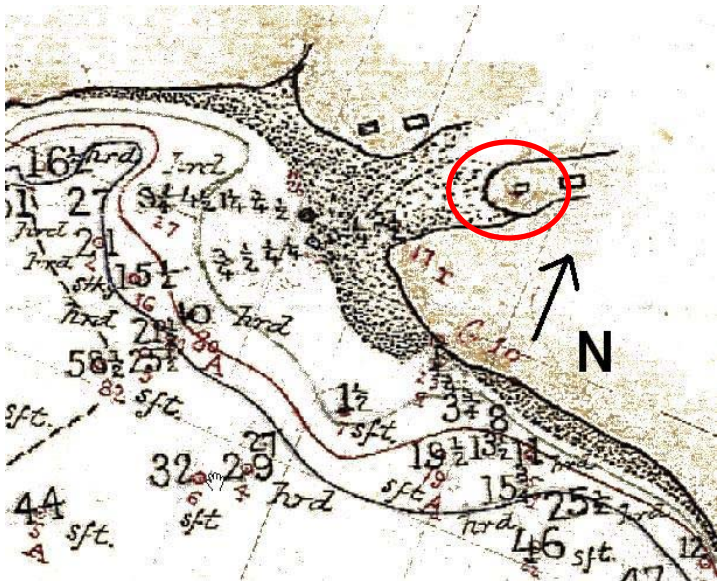


Figure 11. Excerpt from H02627 (1902) Smooth Sheet showing buildings ("Indian Huts") in location currently occupied by the red cabin discussed above. The red circle indicates the location of the red cabin.

Pilot Station

The Valdez Pilot Station, *Emerald Island*, is moored in the narrow bay that indents the south west side of Rocky Point. *Emerald Island* is a 91 foot black hulled ship that used as living quarters for the on-call pilots. The ship and a fuel barge are moored fore and aft to two permanent buoys. The pilot boats are moored alongside the ship when not in use. The ship and barge are periodically unmoored and brought into Valdez for fuel and provisions. There is a submerged plastic water line extending from the ship to a creek in the south east corner of the bay. There are numerous private aids to navigation marking the approach to the pilot station. These aids consist of reflective markers nailed to trees, stakes marking ledges, and small orange buoys. A line encompassing the pilot station, the fuel barge, and the mooring buoys has been drawn in notebook. The hydrographer recommends the pilot station including the ship, barge, and buoys, be charted as one obstruction (S-57 Object Class: OBSTRN, Attribute: NOBJNM: "Emerald Island").[29] As the private aids are relatively inconspicuous and maintained for use by the pilots, the hydrographer recommends they not be charted.[30]

Figure 12. Two views of the Valdez Pilot Station "Emerald Island." The photo on the left is taken from the mouth of the small bay in the southwest side of Rocky Point, facing northeast. The photo on the right shows the forward mooring buoy, and two of the pilot boats moored alongside the "Emerald Island." This photo also faces northeast.

Figure 13. The aft mooring buoy and barge of the Valdez Pilot Station. The barge is moored astern of the "Emerald Island." A partially submerged water pipeline extends from the ship to the creek visible in the background. This photo faces south.

Charted Villages

Charts 16700 and 16708 have an "Indian Village" indicated along Indian Creek. A cursory search was made around the creek mouth. Except for the cabin mentioned previously, no buildings or sign of an Indian Village or its ruins was found. The hydrographer recommends the annotation "Indian Village" be removed from these charts. [31]

Charts 16707 and 16708 have the annotation "Galena Bay" indicating a settlement on the southeast corner of the bay. The hydrographer of the prior survey prior survey commented in the Descriptive Report to H02627, "At the head of Galena Bay a number of copper lodes were being extensively explored during the summer of 1903." There is currently no settlement or mining activity in this location. A search was not made of the area, but no ruins are visible from a boat close to shore. The hydrographer recommends the settlement symbol and annotation "Galena Bay" be removed from these charts. This may be replaced by the designation "ruins." However, the no position or description of these ruins was obtained. [32]

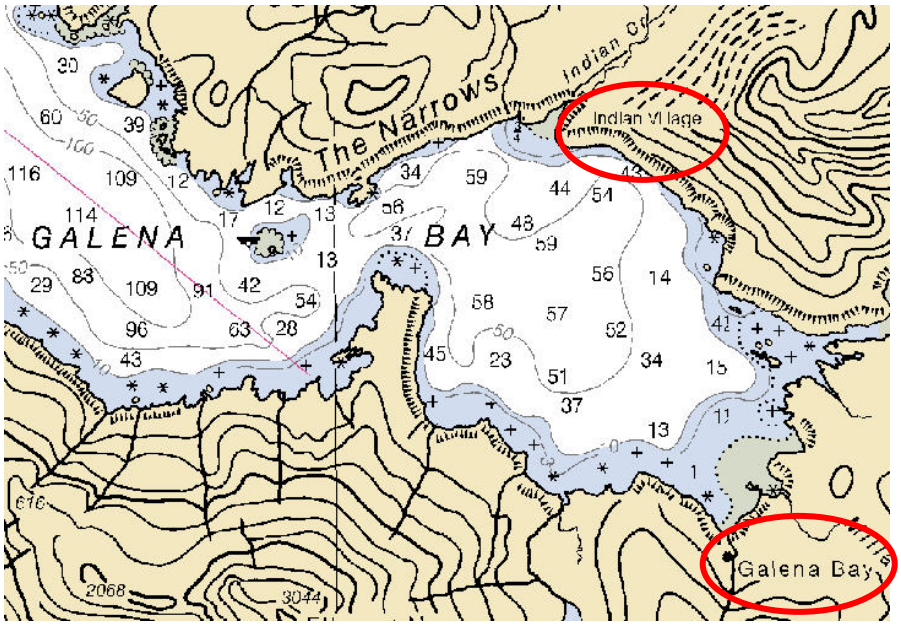


Figure 14. An excerpt from 16708. The Indian Village and settlement of Galena Bay no longer exist. The hydrographer recommends these annotations be removed.

Eel Grass

Many areas of eelgrass were noted around Galena Bay. These have been added to the "H11350_Add" layer in notebook. [33]

E. ADDITIONAL DOCUMENTATION

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

Title	Date Sent	Office
Data Acquisition and Processing Report for OPR-P132-RA-05	10/4/06	N/CS34
Horizontal and Vertical Control Report for OPR-P132-RA-05	06/02/06	N/CS34
Tides and Water Levels Package for OPR-P132-RA-05	10/11/05	N/OPS1
Coast Pilot Report for OPR-P132-RA-05	08/18/06	N/CS26

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of Marine and Aviation Operations
NOAA Ship RAINIER (S221)
1801 Fairview Ave E, Seattle, WA 98102

October 7, 2006

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

FROM: CDR Guy T. Noll, NOAA
Commanding Officer

SUBJECT: Approval of Hydrographic Survey H11350

Field operations for hydrographic survey H11350 were conducted under my direct supervision, with frequent personal checks of progress and adequacy. I have reviewed the attached survey data and reports. The survey data meets or exceeds requirements as set forth in the NOS Hydrographic Surveys and Specifications Deliverables Manual, Field Procedures Manual, Standing and Letter Instructions, and HSD Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required. All data and reports are respectfully submitted to N/CS34, Pacific Hydrographic Branch.

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

Survey Sheet Manager:
Samuel F. Greenaway
Lieutenant Junior Grade, NOAA

Tides Officer:
FOR Nicola Samuelson
Lieutenant Junior Grade, NOAA

Horizontal Control Officer:
Laurel K. Jennings
FOR Andrew P. Halbach
Lieutenant Junior Grade, NOAA

Chief Survey Technician:
James B. Jacobson
Chief Survey Technician, NOAA Ship RAINIER

Field Operations Officer:
Benjamin K. Evans
Lieutenant, NOAA

Revisions Compiled During Office Processing and Certification

[1] Concur.
[2] Filed with the project records.
[3] See attached tide note dated January 10, 2006.
[4] Concur.
[5] Concur.
[6] Concur.
[7] No additional soundings were needed.
[8] Despite the noted offset, the data is within specifications.
[9] Final surfaces were created by the reviewer.
[10] Filed with the project records.
[11] Concur. All data compiled to the HCell were tide corrected in compliance with the requirements set forth in the NOS Hydrographic Survey Specifications and Deliverables Manual.
[12] Filed with the hydrographic data.
[13] Concur.
[14] Concur.
[15] See attached report.
[16] Concur. Retain charted 4 fathoms 5 feet at the current position.
[17] Concur.
[18] See attached report.
[19] Filed with the hydrographic data.
[20] Filed with the hydrographic data.
[21] Filed with the hydrographic data.
[22] Do not concur. Unless a specific feature is investigated and disproved, it is recommended that they be retained as charted.
[23] See attached report.
[24] Concur.
[25] Recommend that aids to navigation be charted using the latest ATONIS information.
[26] Concur.
[27] Concur.
[28] Concur.
[29] Concur with clarification. The pilot station was included in the HCell as a MORFAC area feature and has a corresponding blue note.
[30] Concur.
[31] Do not concur. Retain charted note *Indian Village* and add *Abandoned*.
[32] Concur.
[33] These eel grass point features have been included in the Hcell as WEDKLP.

H11350 Feature Report

Registry Number: H11350

State: Alaska

Locality: Prince William Sound

Sub-locality: Galena Bay

Project Number: OPR-P132-RA-05

Survey Dates: 09/04/2005 - 09/22/2006

Charts Affected

Number	Version	Date	Scale
16707	11th Ed.	09/01/2004	1:40000
16708	26th Ed.	10/01/2004	1:79291
16700	29th Ed.	07/01/2004	1:200000
16013	29th Ed.	11/01/2003	1:969761
531	22nd Ed.	03/01/2004	1:2100000
500	8th Ed.	06/01/2003	1:3500000
50	6th Ed.	06/01/2003	1:10000000

Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Sounding	0.43 m	060° 55' 55.177" N	146° 41' 39.422" W	---
1.2	Sounding	-4.42 m	060° 57' 02.353" N	146° 39' 19.786" W	---
1.3	Sounding	0.48 m	060° 56' 40.462" N	146° 40' 38.824" W	---
1.4	Sounding	999.84 m	060° 56' 38.376" N	146° 40' 50.049" W	---
1.5	GP	[None]	060° 57' 21.103" N	146° 41' 37.794" W	---
1.6	GP	[None]	060° 57' 18.933" N	146° 41' 38.085" W	---
1.7	GP	[None]	060° 57' 17.423" N	146° 41' 39.023" W	---
1.8	GP	[None]	060° 57' 14.718" N	146° 41' 40.575" W	---
1.9	GP	[None]	060° 56' 40.951" N	146° 40' 33.096" W	---
1.10	GP	[None]	060° 56' 52.010" N	146° 39' 54.097" W	---
1.11	GP	[None]	060° 56' 38.717" N	146° 36' 16.525" W	---
1.12	GP	[None]	060° 56' 12.704" N	146° 35' 52.293" W	---

1.13	GP	[None]	060° 56' 06.783" N	146° 35' 21.784" W	---
1.14	GP	[None]	060° 56' 04.229" N	146° 35' 23.284" W	---
1.15	GP	[None]	060° 56' 04.229" N	146° 35' 30.920" W	---
1.16	GP	[None]	060° 55' 32.674" N	146° 36' 43.532" W	---
1.17	GP	[None]	060° 55' 37.571" N	146° 37' 03.496" W	---
1.18	GP	[None]	060° 55' 35.965" N	146° 37' 09.024" W	---
1.19	GP	[None]	060° 55' 33.140" N	146° 37' 22.872" W	---
1.20	GP	[None]	060° 55' 29.373" N	146° 37' 55.135" W	---
1.21	GP	[None]	060° 55' 37.540" N	146° 38' 04.338" W	---
1.22	GP	[None]	060° 55' 39.332" N	146° 38' 02.930" W	---
1.23	GP	[None]	060° 55' 42.995" N	146° 38' 16.681" W	---
1.24	GP	[None]	060° 55' 49.477" N	146° 38' 25.128" W	---
1.25	GP	[None]	060° 55' 51.269" N	146° 38' 25.670" W	---
1.26	GP	[None]	060° 55' 51.006" N	146° 39' 01.192" W	---
1.27	GP	[None]	060° 55' 53.957" N	146° 39' 05.416" W	---
1.28	GP	[None]	060° 55' 57.488" N	146° 39' 08.665" W	---
1.29	GP	[None]	060° 56' 29.673" N	146° 39' 11.589" W	---
1.30	GP	[None]	060° 56' 32.150" N	146° 39' 20.909" W	---
1.31	GP	[None]	060° 56' 02.627" N	146° 39' 54.502" W	---
1.32	GP	[None]	060° 55' 57.881" N	146° 39' 59.595" W	---
1.33	GP	[None]	060° 56' 01.836" N	146° 40' 13.900" W	---
1.34	GP	[None]	060° 56' 40.960" N	146° 40' 33.087" W	---
1.35	GP	[None]	060° 56' 00.874" N	146° 41' 06.851" W	---
1.36	GP	[None]	060° 55' 59.357" N	146° 41' 10.567" W	---
1.37	GP	[None]	060° 55' 55.624" N	146° 41' 39.575" W	---
1.38	GP	[None]	060° 55' 55.566" N	146° 41' 50.483" W	---
1.39	GP	[None]	060° 55' 57.082" N	146° 41' 58.634" W	---
1.40	GP	[None]	060° 56' 06.744" N	146° 42' 32.268" W	---
1.41	GP	[None]	060° 56' 07.872" N	146° 42' 37.956" W	---
1.42	GP	[None]	060° 56' 09.666" N	146° 42' 42.696" W	---
1.43	GP	[None]	060° 56' 12.433" N	146° 42' 47.437" W	---
1.44	GP	[None]	060° 56' 14.945" N	146° 43' 00.815" W	---
1.45	GP	[None]	060° 56' 16.585" N	146° 43' 01.237" W	---
1.46	GP	[None]	060° 56' 18.994" N	146° 43' 04.819" W	---
1.47	GP	[None]	060° 56' 20.275" N	146° 43' 11.035" W	---
1.48	GP	[None]	060° 56' 25.760" N	146° 43' 21.675" W	---

1.49	GP	[None]	060° 56' 27.400" N	146° 43' 25.047" W	---
1.50	GP	[None]	060° 56' 29.911" N	146° 43' 28.523" W	---
1.51	GP	[None]	060° 56' 32.372" N	146° 43' 33.686" W	---
1.52	GP	[None]	060° 56' 50.125" N	146° 43' 34.055" W	---
1.53	GP	[None]	060° 56' 51.153" N	146° 43' 35.745" W	---
1.54	GP	[None]	060° 56' 53.568" N	146° 43' 38.281" W	---
1.55	GP	[None]	060° 56' 55.263" N	146° 43' 38.809" W	---
1.56	GP	[None]	060° 56' 56.805" N	146° 43' 38.597" W	---
1.57	GP	[None]	060° 57' 20.286" N	146° 43' 51.803" W	---
1.58	GP	[None]	060° 57' 23.472" N	146° 43' 53.388" W	---
1.59	GP	[None]	060° 57' 30.306" N	146° 43' 59.622" W	---
1.60	GP	[None]	060° 57' 04.972" N	146° 45' 43.506" W	---
1.61	GP	[None]	060° 57' 01.579" N	146° 45' 33.149" W	---
1.62	GP	[None]	060° 56' 52.122" N	146° 45' 34.946" W	---
1.63	GP	[None]	060° 56' 51.094" N	146° 45' 54.920" W	---
1.64	GP	[None]	060° 56' 48.627" N	146° 45' 54.180" W	---
1.65	GP	[None]	060° 56' 46.879" N	146° 45' 50.481" W	---
1.66	GP	[None]	060° 58' 54.696" N	146° 43' 57.230" W	---
1.67	GP	[None]	060° 58' 31.748" N	146° 43' 25.848" W	---
1.68	GP	[None]	060° 58' 21.727" N	146° 43' 27.195" W	---
1.69	GP	[None]	060° 57' 06.988" N	146° 38' 59.469" W	---
1.70	GP	[None]	060° 55' 36.342" N	146° 36' 44.944" W	---
1.71	GP	[None]	060° 57' 29.721" N	146° 43' 53.471" W	---
1.72	GP	[None]	060° 57' 26.763" N	146° 45' 39.303" W	---
1.73	Sounding	-0.94 m	060° 57' 06.238" N	146° 45' 46.173" W	---
1.74	Sounding	-0.56 m	060° 57' 00.714" N	146° 45' 57.193" W	---
1.75	Sounding	-3.22 m	060° 57' 16.128" N	146° 45' 34.230" W	---
1.76	Sounding	-0.42 m	060° 57' 17.456" N	146° 41' 48.687" W	---
1.77	Rock	-3.55 m	060° 57' 41.218" N	146° 42' 40.111" W	---
1.78	Rock	-3.20 m	060° 58' 40.875" N	146° 43' 19.220" W	---
1.79	Rock	-2.30 m	060° 58' 44.655" N	146° 42' 59.202" W	---
1.80	Rock	0.07 m	060° 58' 48.183" N	146° 43' 45.260" W	---
1.81	Rock	-2.88 m	060° 58' 55.408" N	146° 43' 50.699" W	---
1.82	Rock	39.83 m	060° 57' 25.367" N	146° 42' 15.479" W	---
1.83	Sounding	18.83 m	060° 57' 43.979" N	146° 42' 57.749" W	---
1.84	Rock	-0.18 m	060° 56' 06.634" N	146° 39' 09.837" W	---

1.85	Rock	-2.25 m	060° 55' 28.512" N	146° 37' 15.506" W	---
1.86	Rock	0.41 m	060° 55' 49.142" N	146° 35' 42.197" W	---
1.87	Rock	2.38 m	060° 56' 54.247" N	146° 45' 52.884" W	---
2.1	Rock	-0.24 m	060° 56' 48.558" N	146° 45' 36.473" W	---
2.2	Sounding	-1.92 m	060° 56' 49.239" N	146° 45' 19.999" W	---
2.3	Sounding	-1.92 m	060° 56' 48.466" N	146° 45' 33.165" W	---
2.4	Rock	1.08 m	060° 57' 07.277" N	146° 44' 43.570" W	---
2.5	Rock	-1.46 m	060° 57' 03.176" N	146° 45' 05.153" W	---
2.6	Sounding	-0.47 m	060° 57' 00.059" N	146° 45' 14.885" W	---
2.7	Rock	-0.70 m	060° 56' 59.335" N	146° 45' 23.032" W	---
2.8	Rock	-1.42 m	060° 56' 53.220" N	146° 45' 28.714" W	---
2.9	Sounding	-0.36 m	060° 56' 20.690" N	146° 36' 04.758" W	---
2.10	Rock	-0.30 m	060° 56' 29.130" N	146° 36' 18.584" W	---
2.11	Rock	0.22 m	060° 56' 27.989" N	146° 36' 25.752" W	---
2.12	Sounding	-0.23 m	060° 56' 52.198" N	146° 40' 34.985" W	---
2.13	Sounding	-0.24 m	060° 56' 54.380" N	146° 40' 24.796" W	---
2.14	Rock	0.02 m	060° 56' 56.589" N	146° 41' 23.812" W	---
2.15	Sounding	-0.18 m	060° 57' 23.115" N	146° 41' 42.004" W	---
2.16	Sounding	-1.42 m	060° 57' 06.914" N	146° 45' 49.985" W	---
2.17	Rock	0.50 m	060° 56' 59.756" N	146° 46' 08.803" W	---
2.18	Rock	-0.63 m	060° 57' 32.004" N	146° 44' 57.642" W	---
2.19	Rock	-1.51 m	060° 57' 45.431" N	146° 42' 56.542" W	---
2.20	Rock	0.33 m	060° 58' 18.327" N	146° 43' 16.478" W	---
2.21	Rock	0.35 m	060° 58' 39.434" N	146° 43' 14.152" W	---
2.22	Rock	-0.72 m	060° 59' 04.176" N	146° 42' 14.194" W	---
2.23	Rock	0.97 m	060° 58' 45.011" N	146° 43' 32.110" W	---
2.24	Rock	1.17 m	060° 56' 10.599" N	146° 39' 53.638" W	---
2.25	Rock	-0.16 m	060° 56' 04.045" N	146° 40' 00.331" W	---
2.26	Shoal	1.42 m	060° 56' 12.217" N	146° 42' 46.490" W	---
3.1	Shoal	8.87 m	060° 56' 30.600" N	146° 40' 00.057" W	---
3.2	Shoal	5.19 m	060° 58' 52.706" N	146° 42' 31.911" W	---

1 - Charted Features

1.1) Profile/Beam - 873/88 from h11350 / 1006_reson8101_hvf / 2005-271 / 509_2036

Survey Summary

Survey Position: 060° 55' 55.177" N, 146° 41' 39.422" W

Least Depth: 0.43 m

Timestamp: 2005-271.20:37:48.189 (09/28/2005)

Survey Line: h11350 / 1006_reson8101_hvf / 2005-271 / 509_2036

Profile/Beam: 873/88

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Replace RK symbol with Underwater Rock symbol.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1006_reson8101_hvf/2005-271/509_2036	873/88	0.00	000.0	Primary
ChartGPs - Digitized	34	14.01	170.6	Secondary (grouped)

Hydrographer Recommendations

Office examination revealed a rock with a MLLW least depth of .33m (1.42ft) in 4m of water. Recommend replacing rock symbol currently on chart with a Dangerous Underwater Rock symbol.

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 1ft (16707_1, 531_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 - 0.433 m

WATLEV - 3:always under water/submerged

Office Notes

Do not concur. VALSOU is in WATLEV "awash" range not "always submerged". Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND. See correlating item Chart GP 34.

1.2) Profile/Beam - 4/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 57' 02.353" N, 146° 39' 19.786" W

Least Depth: -4.42 m

Timestamp: 2005-247.16:28:12.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 4/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF RK is CHD Islet

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2 ¼fm (16708_1, 16700_1, 16013_1)

-2fm 2ft (16707_1, 531_1)

-4.4m (500_1, 50_1)

S-57 Data

Geo object 1: Land area (LNDARE)

Office Notes

Retain charted islet.

Feature Images

Figure 1.2.1

1.3) Profile/Beam - 7/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 56' 40.462" N, 146° 40' 38.824" W

Least Depth: 0.48 m

Timestamp: 2005-247.17:14:50.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 7/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) Shoal HP

QUA: GPSmode=2, SVs=8, HDOP=1.40

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 1ft (16707_1, 531_1)

.5m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Office Notes

Update OBSTRN feature VALSOU, WATLEV, SORDAT and SORIND.

1.4) Profile/Beam - 8/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 56' 38.376" N, 146° 40' 50.049" W

Least Depth: 999.84 m

Timestamp: 2005-247.17:21:24.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 8/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) mooring buoy disproval Visual Search Good Visability

QUA: GPSmode=2, SVs=8, HDOP=1.40

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	8/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

546fm (16708_1, 16700_1, 16013_1)

546fm (16707_1, 531_1)

1000m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Remove charted (16707) mooring buoy.

1.5) GP No. - 2 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 21.103" N, 146° 41' 37.794" W

Least Depth: [None]

Timestamp: 2005-349.21:40:20 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 2

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	2	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.6) GP No. - 3 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 18.933" N, 146° 41' 38.085" W

Least Depth: [None]

Timestamp: 2005-349.21:53:22 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 3

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	3	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Do not concur. A rock is apparent in the combined BASE surface. Retain rock as charted.

1.7) GP No. - 4 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 17.423" N, 146° 41' 39.023" W

Least Depth: [None]

Timestamp: 2005-349.21:53:52 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 4

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	4	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.8) GP No. - 5 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 14.718" N, 146° 41' 40.575" W

Least Depth: [None]

Timestamp: 2005-349.21:53:57 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 5

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	5	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.9) GP No. - 6 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 40.951" N, 146° 40' 33.096" W

Least Depth: [None]

Timestamp: 2005-349.23:15:58 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 6

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	6	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.10) GP No. - 7 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 52.010" N, 146° 39' 54.097" W

Least Depth: [None]

Timestamp: 2005-349.23:20:21 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 7

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	7	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.11) GP No. - 8 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 38.717" N, 146° 36' 16.525" W

Least Depth: [None]

Timestamp: 2005-349.23:26:08 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 8

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ Star Pattern. 5 min. search, 30m radius, 1-2m water visability, gently sloping bottom 1-2 m deep.

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	8	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.12) GP No. - 9 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 12.704" N, 146° 35' 52.293" W

Least Depth: [None]

Timestamp: 2005-349.23:31:45 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 9

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ Star Pattern

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	9	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.13) GP No. - 10 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 06.783" N, 146° 35' 21.784" W

Least Depth: [None]

Timestamp: 2005-349.23:56:09 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 10

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ Star Pattern

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	10	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.14) GP No. - 11 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 04.229" N, 146° 35' 23.284" W

Least Depth: [None]

Timestamp: 2005-349.23:56:25 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 11

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ Star Pattern

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	11	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.15) GP No. - 12 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 04.229" N, 146° 35' 30.920" W

Least Depth: [None]

Timestamp: 2005-349.23:56:30 (12/15/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 12

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ Star Pattern

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	12	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.16) GP No. - 13 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 32.674" N, 146° 36' 43.532" W

Least Depth: [None]

Timestamp: 2005-354.23:48:39 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 13

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	13	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.17) GP No. - 14 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 37.571" N, 146° 37' 03.496" W

Least Depth: [None]

Timestamp: 2005-354.23:49:16 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 14

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	14	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.18) GP No. - 15 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 35.965" N, 146° 37' 09.024" W

Least Depth: [None]

Timestamp: 2005-354.23:49:28 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 15

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	15	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.19) GP No. - 16 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 33.140" N, 146° 37' 22.872" W

Least Depth: [None]

Timestamp: 2005-354.23:50:35 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 16

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	16	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Do not concur. A rock is apparent in the combined BASE surface. Retain rock as charted.

1.20) GP No. - 17 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 29.373" N, 146° 37' 55.135" W

Least Depth: [None]

Timestamp: 2005-354.23:52:41 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 17

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

See Office Notes

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	17	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

See Office Notes

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Charted rock was not covered with 100% MB as stated by hydrographer. There is insufficient data to determine whether rock exists. Do not delete charted rock. MDF

Concur with reviewer assessment. Retain charted (16707) rock.

1.21) GP No. - 18 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 37.540" N, 146° 38' 04.338" W

Least Depth: [None]

Timestamp: 2005-354.23:52:48 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 18

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	18	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Do not concur. A rock is apparent in the combined BASE surface. Retain rock as charted.

1.22) GP No. - 19 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 39.332" N, 146° 38' 02.930" W

Least Depth: [None]

Timestamp: 2005-354.23:52:53 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 19

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	19	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.23) GP No. - 20 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 42.995" N, 146° 38' 16.681" W

Least Depth: [None]

Timestamp: 2005-354.23:53:51 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 20

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	20	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.24) GP No. - 21 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 49.477" N, 146° 38' 25.128" W

Least Depth: [None]

Timestamp: 2005-354.23:53:57 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 21

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	21	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.25) GP No. - 22 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 51.269" N, 146° 38' 25.670" W

Least Depth: [None]

Timestamp: 2005-354.23:54:01 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 22

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	22	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.26) GP No. - 23 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 51.006" N, 146° 39' 01.192" W

Least Depth: [None]

Timestamp: 2005-354.23:54:14 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 23

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	23	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.27) GP No. - 24 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 53.957" N, 146° 39' 05.416" W

Least Depth: [None]

Timestamp: 2005-354.23:54:18 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 24

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	24	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.28) GP No. - 25 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 57.488" N, 146° 39' 08.665" W

Least Depth: [None]

Timestamp: 2005-354.23:54:24 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 25

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	25	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.29) GP No. - 26 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 29.673" N, 146° 39' 11.589" W

Least Depth: [None]

Timestamp: 2005-354.23:55:32 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 26

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	26	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.30) GP No. - 27 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 32.150" N, 146° 39' 20.909" W

Least Depth: [None]

Timestamp: 2005-354.23:55:37 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 27

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	27	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.31) GP No. - 28 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 02.627" N, 146° 39' 54.502" W

Least Depth: [None]

Timestamp: 2005-354.23:56:34 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 28

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	28	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.32) GP No. - 29 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 57.881" N, 146° 39' 59.595" W

Least Depth: [None]

Timestamp: 2005-354.23:56:39 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 29

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	29	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Do not concur. A rock is apparent in the combined BASE surface. Retain rock as charted.

1.33) GP No. - 30 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 01.836" N, 146° 40' 13.900" W

Least Depth: [None]

Timestamp: 2005-354.23:56:44 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 30

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	30	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.34) GP No. - 31 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 40.960" N, 146° 40' 33.087" W

Least Depth: [None]

Timestamp: 2005-354.23:57:26 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 31

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	31	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.35) GP No. - 32 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 00.874" N, 146° 41' 06.851" W

Least Depth: [None]

Timestamp: 2005-354.23:58:04 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 32

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	32	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.36) GP No. - 33 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 59.357" N, 146° 41' 10.567" W

Least Depth: [None]

Timestamp: 2005-354.23:58:07 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 33

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	33	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.37) GP No. - 34 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 55.624" N, 146° 41' 39.575" W

Least Depth: [None]

Timestamp: 2005-354.23:58:21 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 34

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

See Office Notes

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1006_reson8101_hvf/2005-271/509_2036	873/88	0.00	000.0	Primary
ChartGPs - Digitized	34	14.01	170.6	Secondary (grouped)

Hydrographer Recommendations

Delete CHD RK

See Office Notes

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Further examination revealed a rock with a MLLW least depth of .33m (1.42ft) in 4m of water. Recommend replacing rock symbol currently on chart with a Dangerous Underwater Rock symbol.

Do not concur with reviewer recommendation. The least depth is 0.43m which puts it in the "awash" WATLEV range. Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND. See correlating item 873/88.

1.38) GP No. - 35 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 55.566" N, 146° 41' 50.483" W

Least Depth: [None]

Timestamp: 2005-354.23:58:24 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 35

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	35	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.39) GP No. - 36 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 57.082" N, 146° 41' 58.634" W

Least Depth: [None]

Timestamp: 2005-354.23:58:28 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 36

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	36	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.40) GP No. - 37 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 06.744" N, 146° 42' 32.268" W

Least Depth: [None]

Timestamp: 2005-354.23:59:13 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 37

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	37	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.41) GP No. - 38 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 07.872" N, 146° 42' 37.956" W

Least Depth: [None]

Timestamp: 2005-354.23:59:19 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 38

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	38	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Do not concur. A rock is apparent in the combined BASE surface. Retain rock as charted.

1.42) GP No. - 39 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 09.666" N, 146° 42' 42.696" W

Least Depth: [None]

Timestamp: 2005-354.23:59:23 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 39

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	39	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.43) GP No. - 40 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 12.433" N, 146° 42' 47.437" W

Least Depth: [None]

Timestamp: 2005-354.23:59:29 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 40

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB ***See Office Notes***

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	40	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

See Office Notes

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Underwater Rock with a MLLW least depth of 1.9m in 8m of water was discovered in office review. Recommend replacing rock symbol currently on chart with a Dangerous Underwater Rock symbol.

Concur with reviewer recommendation.

1.44) GP No. - 41 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 14.945" N, 146° 43' 00.815" W

Least Depth: [None]

Timestamp: 2005-354.23:59:34 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 41

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	41	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.45) GP No. - 42 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 16.585" N, 146° 43' 01.237" W

Least Depth: [None]

Timestamp: 2005-354.23:59:40 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 42

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	42	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.46) GP No. - 43 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 18.994" N, 146° 43' 04.819" W

Least Depth: [None]

Timestamp: 2005-354.23:59:45 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 43

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	43	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.47) GP No. - 44 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 20.275" N, 146° 43' 11.035" W

Least Depth: [None]

Timestamp: 2005-354.23:59:48 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 44

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	44	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.48) GP No. - 45 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 25.760" N, 146° 43' 21.675" W

Least Depth: [None]

Timestamp: 2005-354.23:59:55 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 45

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	45	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.49) GP No. - 46 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 27.400" N, 146° 43' 25.047" W

Least Depth: [None]

Timestamp: 2005-354.23:59:57 (12/20/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 46

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	46	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.50) GP No. - 47 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 29.911" N, 146° 43' 28.523" W

Least Depth: [None]

Timestamp: 2005-355.00:00:01 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 47

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	47	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Do not concur. A rock is apparent in the combined BASE surface. Retain rock as charted.

1.51) GP No. - 48 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 32.372" N, 146° 43' 33.686" W

Least Depth: [None]

Timestamp: 2005-355.00:00:04 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 48

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	48	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.52) GP No. - 49 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 50.125" N, 146° 43' 34.055" W

Least Depth: [None]

Timestamp: 2005-355.00:03:20 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 49

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	49	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.53) GP No. - 50 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 51.153" N, 146° 43' 35.745" W

Least Depth: [None]

Timestamp: 2005-355.00:03:23 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 50

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	50	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.54) GP No. - 51 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 53.568" N, 146° 43' 38.281" W

Least Depth: [None]

Timestamp: 2005-355.00:03:28 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 51

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	51	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.55) GP No. - 52 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 55.263" N, 146° 43' 38.809" W

Least Depth: [None]

Timestamp: 2005-355.00:03:31 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 52

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	52	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.56) GP No. - 53 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 56.805" N, 146° 43' 38.597" W

Least Depth: [None]

Timestamp: 2005-355.00:03:34 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 53

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	53	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.57) GP No. - 54 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 20.286" N, 146° 43' 51.803" W

Least Depth: [None]

Timestamp: 2005-355.00:03:43 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 54

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	54	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.58) GP No. - 55 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 23.472" N, 146° 43' 53.388" W

Least Depth: [None]

Timestamp: 2005-355.00:03:46 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 55

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	55	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Do not concur. A rock is apparent in the combined BASE surface. Retain rock as charted.

1.59) GP No. - 56 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 30.306" N, 146° 43' 59.622" W

Least Depth: [None]

Timestamp: 2005-355.00:04:00 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 56

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	56	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.60) GP No. - 57 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 04.972" N, 146° 45' 43.506" W

Least Depth: [None]

Timestamp: 2005-355.00:06:21 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 57

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	57	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.61) GP No. - 58 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 01.579" N, 146° 45' 33.149" W

Least Depth: [None]

Timestamp: 2005-355.00:06:29 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 58

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	58	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.62) GP No. - 59 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 52.122" N, 146° 45' 34.946" W

Least Depth: [None]

Timestamp: 2005-355.00:06:40 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 59

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	59	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.63) GP No. - 60 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 51.094" N, 146° 45' 54.920" W

Least Depth: [None]

Timestamp: 2005-355.00:06:46 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 60

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	60	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.64) GP No. - 61 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 48.627" N, 146° 45' 54.180" W

Least Depth: [None]

Timestamp: 2005-355.00:06:50 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 61

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	61	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.65) GP No. - 62 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 56' 46.879" N, 146° 45' 50.481" W

Least Depth: [None]

Timestamp: 2005-355.00:06:57 (12/21/2005)

GP Dataset: ChartGPs - Digitized

GP No.: 62

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	62	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.66) GP No. - 63 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 58' 54.696" N, 146° 43' 57.230" W

Least Depth: [None]

Timestamp: 2006-264.18:08:26 (09/21/2006)

GP Dataset: ChartGPs - Digitized

GP No.: 63

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) Rk Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	63	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD (16707) Rk

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.67) GP No. - 64 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 58' 31.748" N, 146° 43' 25.848" W

Least Depth: [None]

Timestamp: 2006-264.19:53:11 (09/21/2006)

GP Dataset: ChartGPs - Digitized

GP No.: 64

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) Rk Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	64	0.00	000.0	Primary

Hydrographer Recommendations

Remove CHD (16707) Rk

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.68) GP No. - 65 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 58' 21.727" N, 146° 43' 27.195" W

Least Depth: [None]

Timestamp: 2006-264.20:00:51 (09/21/2006)

GP Dataset: ChartGPs - Digitized

GP No.: 65

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) Rk Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	65	0.00	000.0	Primary

Hydrographer Recommendations

Remove CHD (16707) Rk

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.69) GP No. - 66 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 06.988" N, 146° 38' 59.469" W

Least Depth: [None]

Timestamp: 2006-264.21:01:10 (09/21/2006)

GP Dataset: ChartGPs - Digitized

GP No.: 66

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) Rk Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	66	0.00	000.0	Primary

Hydrographer Recommendations

Remove CHD (16707) Rk

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.70) GP No. - 67 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 55' 36.342" N, 146° 36' 44.944" W

Least Depth: [None]

Timestamp: 2006-264.22:16:52 (09/21/2006)

GP Dataset: ChartGPs - Digitized

GP No.: 67

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16708) Rk Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	67	0.00	000.0	Primary

Hydrographer Recommendations

Remove CHD (16708) Rk

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.71) GP No. - 68 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 29.721" N, 146° 43' 53.471" W

Least Depth: [None]

Timestamp: 2006-265.14:44:01 (09/22/2006)

GP Dataset: ChartGPs - Digitized

GP No.: 68

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16708) Rk Disproved w/ 100% MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	68	0.00	000.0	Primary

Hydrographer Recommendations

Remove CHD (16708) Rk

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Do not concur. A rock is apparent in the combined BASE surface. Retain rock as charted on 16708.

1.72) GP No. - 69 from ChartGPs - Digitized

Survey Summary

Survey Position: 060° 57' 26.763" N, 146° 45' 39.303" W

Least Depth: [None]

Timestamp: 2006-265.16:23:47 (09/22/2006)

GP Dataset: ChartGPs - Digitized

GP No.: 69

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) Rk Disproved w/ 100 % MB

Feature Correlation

Address	Feature	Range	Azimuth	Status
ChartGPs - Digitized	69	0.00	000.0	Primary

Hydrographer Recommendations

Remove CHD (16707) Rk

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.73) Profile/Beam - 2/1 from h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Survey Summary

Survey Position: 060° 57' 06.238" N, 146° 45' 46.173" W

Least Depth: -0.94 m

Timestamp: 2005-260.15:47:25.000 (09/17/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Profile/Beam: 2/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF RK Verified, DP for Height

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-260/dp_817_260	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16700_1, 16013_1)

0fm 3ft (16707_1, 531_1)

-1.0m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

Feature Images

Figure 1.73.1 Facing SE

1.74) Profile/Beam - 4/1 from h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Survey Summary

Survey Position: 060° 57' 00.714" N, 146° 45' 57.193" W

Least Depth: -0.56 m

Timestamp: 2005-260.16:09:21.000 (09/17/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Profile/Beam: 4/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD RK is Reef, DP on High Point

QUA: GPSmode=2, SVs=9, HDOP=0.90

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-260/dp_817_260	4/1	0.00	000.0	Primary

Hydrographer Recommendations

Remove CHD (16707) Rk, Add New Reef.

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 2ft (16707_1, 531_1)

-.6m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -0.563 m

Office Notes

Do not concur. Chart high point on new reef.

Feature Images

Figure 1.74.1 Facing NE

1.75) Profile/Beam - 5/1 from h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Survey Summary

Survey Position: 060° 57' 16.128" N, 146° 45' 34.230" W

Least Depth: -3.22 m

Timestamp: 2005-260.16:26:26.000 (09/17/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Profile/Beam: 5/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF and CHD (16707) RK is Reef, DP on High Point

QUA: GPSmode=2, SVs=8, HDOP=1.40

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-260/dp_817_260	5/1	0.00	000.0	Primary
h11350/817_nonechosounder_dp/2005-260/dp_817_260	6/1	22.89	100.6	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (16708_1, 16700_1, 16013_1)

-1fm 4ft (16707_1, 531_1)

-3.2m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart high point on new reef.

Feature Images

Figure 1.75.1 Facing E

1.76) Profile/Beam - 1/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 57' 17.456" N, 146° 41' 48.687" W

Least Depth: -0.42 m

Timestamp: 2005-260.15:41:05.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 1/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Verified

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 1ft (16707_1, 531_1)

-.4m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -0.424 m

Office Notes

Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

1.77) Profile/Beam - 3/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 57' 41.218" N, 146° 42' 40.111" W

Least Depth: -3.55 m

Timestamp: 2005-260.16:07:24.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 3/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF RK Verified, DP for Height

QUA: GPSmode=2, SVs=9, HDOP=0.90

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

-1fm 5ft (16707_1, 531_1)

-3.6m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Replace charted islet with rock and update with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

1.78) Profile/Beam - 7/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 58' 40.875" N, 146° 43' 19.220" W

Least Depth: -3.20 m

Timestamp: 2005-260.17:02:35.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 7/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD Islet is CFF Bare RK

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (16708_1, 16700_1, 16013_1)

-1fm 4ft (16707_1, 531_1)

-3.2m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -3.197 m

Office Notes

Replace charted islet with rock and update with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

1.79) Profile/Beam - 9/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 58' 44.655" N, 146° 42' 59.202" W

Least Depth: -2.30 m

Timestamp: 2005-260.17:40:46.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 9/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF Islet is CHD (16707) RK

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	9/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16708_1, 16700_1, 16013_1)

-1fm 1ft (16707_1, 531_1)

-2.3m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -2.302 m

Office Notes

Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

1.80) Profile/Beam - 10/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 58' 48.183" N, 146° 43' 45.260" W

Least Depth: 0.07 m

Timestamp: 2005-260.17:58:56.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 10/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) SUBM RK verified; depth determined with lead line

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	10/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 0ft (16707_1, 531_1)

.0m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

1.81) Profile/Beam - 12/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 58' 55.408" N, 146° 43' 50.699" W

Least Depth: -2.88 m

Timestamp: 2005-260.18:12:32.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 12/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CFF RK DP for height

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	12/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ½fm (16708_1, 16700_1, 16013_1)

-1fm 3ft (16707_1, 531_1)

-2.9m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

1.82) Profile/Beam - 1/1 from h11350 / 1103_echosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 57' 25.367" N, 146° 42' 15.479" W

Least Depth: 39.83 m

Timestamp: 2005-260.15:33:08.000 (09/17/2005)

DP Dataset: h11350 / 1103_echosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 1/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Disproved w/ 100% MB

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_echosounder_dp/2005-260/dp_1103_260	1/1	0.00	000.0	Primary

Hydrographer Recommendations

Delete CHD RK

Cartographically-Rounded Depth (Affected Charts):

22fm (16708_1, 16700_1, 16013_1)

22fm (16707_1, 531_1)

40m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Concur.

1.83) Profile/Beam - 2/1 from h11350 / 1103_echosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 57' 43.979" N, 146° 42' 57.749" W

Least Depth: 18.83 m

Timestamp: 2005-260.16:22:34.000 (09/17/2005)

DP Dataset: h11350 / 1103_echosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 2/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD RK Disproval

QUA: GPSmode=2, SVs=8, HDOP=1.40

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_echosounder_dp/2005-260/dp_1103_260	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

10 ¼fm (16708_1, 16700_1, 16013_1)

10fm 2ft (16707_1, 531_1)

18.8m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Covered with 100% multibeam. Remove charted (16707) rock.

1.84) Profile/Beam - 4/1 from h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Survey Summary

Survey Position: 060° 56' 06.634" N, 146° 39' 09.837" W

Least Depth: -0.18 m

Timestamp: 2005-260.16:47:40.000 (09/17/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Profile/Beam: 4/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK Verified, DP for Height

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-260/dp_1101_260	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 0ft (16707_1, 531_1)

-.2m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

Feature Images

Figure 1.84.1 Facing West

1.85) Profile/Beam - 5/1 from h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Survey Summary

Survey Position: 060° 55' 28.512" N, 146° 37' 15.506" W

Least Depth: -2.25 m

Timestamp: 2005-260.17:06:20.000 (09/17/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Profile/Beam: 5/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK is LDG

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-260/dp_1101_260	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16708_1, 16700_1, 16013_1)

-1fm 1ft (16707_1, 531_1)

-2.3m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Replace charted (16707) rock with new ledge.

Feature Images

Figure 1.85.1 Facing West

1.86) Profile/Beam - 6/1 from h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Survey Summary

Survey Position: 060° 55' 49.142" N, 146° 35' 42.197" W

Least Depth: 0.41 m

Timestamp: 2005-260.17:28:25.000 (09/17/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Profile/Beam: 6/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) Subm. RK Noted

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-260/dp_1101_260	6/1	0.00	000.0	Primary

Hydrographer Recommendations

Retain as charted

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 1ft (16707_1, 531_1)

.4m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 0.412 m

Office Notes

Concur with clarification. Charted (16707) rock verified. Update rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

1.87) Profile/Beam - 470/187 from h11350 / 1016_reson8125_hvf / 2005-248 / 419_1854

Survey Summary

Survey Position: 060° 56' 54.247" N, 146° 45' 52.884" W

Least Depth: 2.38 m

Timestamp: 2005-248.18:55:29.703 (09/05/2005)

Survey Line: h11350 / 1016_reson8125_hvf / 2005-248 / 419_1854

Profile/Beam: 470/187

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

CHD (16707) RK 20m to NNE is this SUBM RK Position from designated sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1016_reson8125_hvf/2005-248/419_1854	470/187	0.00	000.0	Primary

Hydrographer Recommendations

Adjust position of CHD RK to this position

Cartographically-Rounded Depth (Affected Charts):

1 ¼fm (16708_1, 16700_1, 16013_1)

1fm 2ft (16707_1, 531_1)

2.4m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 2.379 m

Office Notes

Concur with clarification. Replace charted (16707) rock with new rock position. Update rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

2 - New Features

2.1) Profile/Beam - 1/1 from h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Survey Summary

Survey Position: 060° 56' 48.558" N, 146° 45' 36.473" W

Least Depth: -0.24 m

Timestamp: 2005-247.16:15:39.000 (09/04/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Profile/Beam: 1/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-247/dp_817_247	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 1ft (16707_1, 531_1)

-.3m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -0.238 m

Office Notes

Chart new rock.

Feature Images

Figure 2.1.1 Facing W

2.2) Profile/Beam - 2/1 from h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Survey Summary

Survey Position: 060° 56' 49.239" N, 146° 45' 19.999" W

Least Depth: -1.92 m

Timestamp: 2005-247.16:23:16.000 (09/04/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Profile/Beam: 2/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW LDG

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-247/dp_817_247	2/1	0.00	000.0	Primary

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

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

-1fm 0ft (16707_1, 531_1)

-1.9m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new ledge.

Feature Images

Figure 2.2.1 Facing S

2.3) Profile/Beam - 3/1 from h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Survey Summary

Survey Position: 060° 56' 48.466" N, 146° 45' 33.165" W

Least Depth: -1.92 m

Timestamp: 2005-247.16:26:42.000 (09/04/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Profile/Beam: 3/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW LDG

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-247/dp_817_247	3/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart New LDG

Cartographically-Rounded Depth (Affected Charts):

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

-1fm 0ft (16707_1, 531_1)

-1.9m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new ledge.

Feature Images

Figure 2.3.1 Facing S

2.4) Profile/Beam - 4/1 from h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Survey Summary

Survey Position: 060° 57' 07.277" N, 146° 44' 43.570" W

Least Depth: 1.08 m

Timestamp: 2005-247.16:48:51.000 (09/04/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Profile/Beam: 4/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW LDG

QUA: GPSmode=2, SVs=9, HDOP=0.90

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-247/dp_817_247	4/1	0.00	000.0	Primary

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16700_1, 16013_1)

0fm 3ft (16707_1, 531_1)

1.1m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new ledge.

Feature Images

Figure 2.4.1 Facing E

2.5) Profile/Beam - 5/1 from h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Survey Summary

Survey Position: 060° 57' 03.176" N, 146° 45' 05.153" W

Least Depth: -1.46 m

Timestamp: 2005-247.17:01:46.000 (09/04/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Profile/Beam: 5/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-247/dp_817_247	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16700_1, 16013_1)

0fm 5ft (16707_1, 531_1)

-1.5m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -1.461 m

Office Notes

Chart new rock.

Feature Images

Figure 2.5.1 Facing NE

2.6) Profile/Beam - 6/1 from h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Survey Summary

Survey Position: 060° 57' 00.059" N, 146° 45' 14.885" W

Least Depth: -0.47 m

Timestamp: 2005-247.17:05:05.000 (09/04/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Profile/Beam: 6/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW LDG

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-247/dp_817_247	6/1	0.00	000.0	Primary

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 1ft (16707_1, 531_1)

-.5m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new ledge.

Feature Images

Figure 2.6.1 Facing W

2.7) Profile/Beam - 7/1 from h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Survey Summary

Survey Position: 060° 56' 59.335" N, 146° 45' 23.032" W

Least Depth: -0.70 m

Timestamp: 2005-247.17:10:19.000 (09/04/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Profile/Beam: 7/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW REEF, Marked with Private Beacon

QUA: GPSmode=2, SVs=7, HDOP=1.50

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-247/dp_817_247	7/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart New Reef

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 2ft (16707_1, 531_1)

-.7m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new reef.

Feature Images

Figure 2.7.1 Facing N

2.8) Profile/Beam - 8/1 from h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Survey Summary

Survey Position: 060° 56' 53.220" N, 146° 45' 28.714" W

Least Depth: -1.42 m

Timestamp: 2005-247.17:42:29.000 (09/04/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-247 / dp_817_247

Profile/Beam: 8/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-247/dp_817_247	8/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16700_1, 16013_1)

0fm 4ft (16707_1, 531_1)

-1.4m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -1.423 m

Office Notes

Chart new rock.

Feature Images

Figure 2.8.1 Facing W

2.9) Profile/Beam - 1/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 56' 20.690" N, 146° 36' 04.758" W

Least Depth: -0.36 m

Timestamp: 2005-247.15:37:19.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 1/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW LDG

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	1/1	0.00	000.0	Primary

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 1ft (16707_1, 531_1)

-.4m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new ledge.

Feature Images

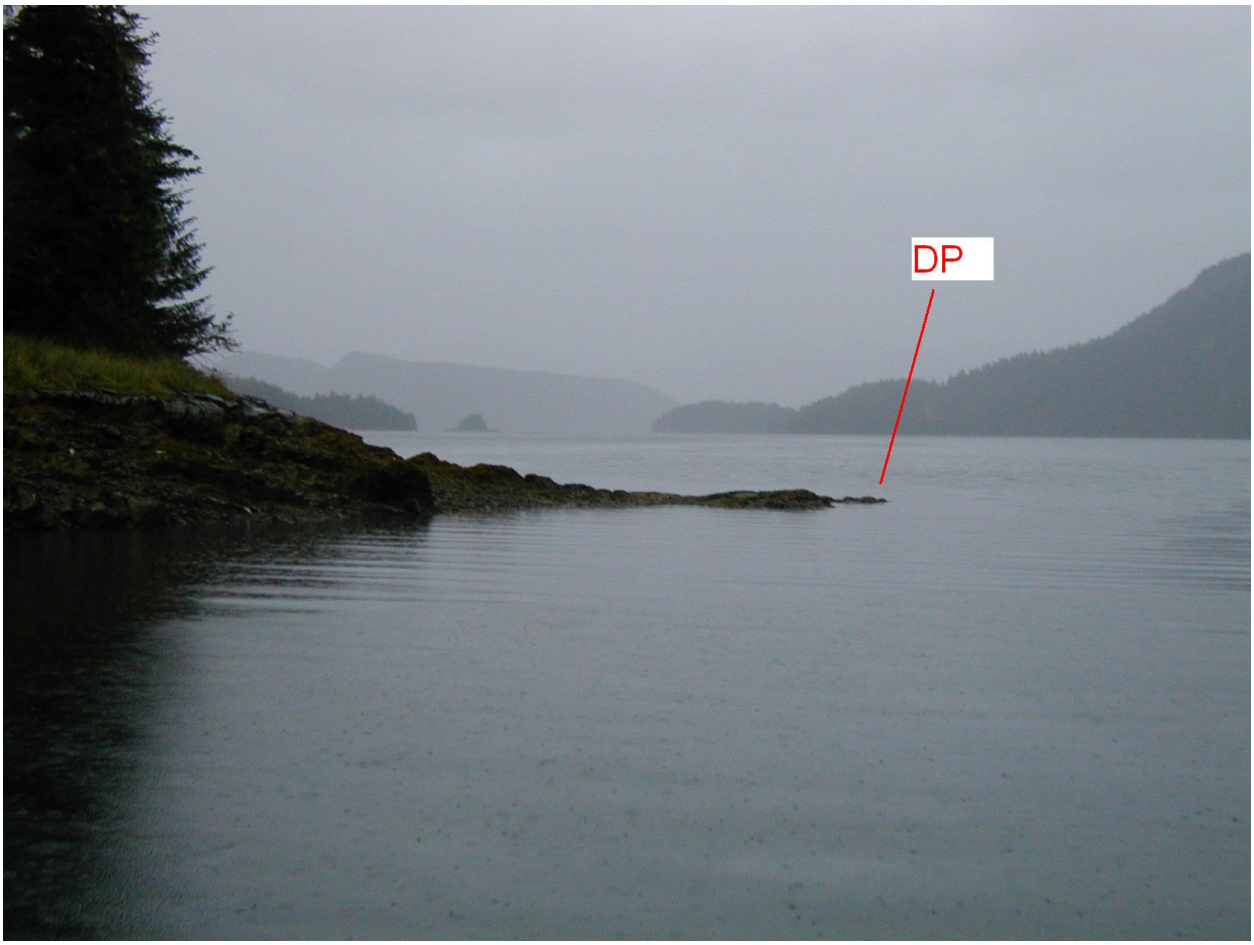


Figure 2.9.1 Tacing W

2.10) Profile/Beam - 2/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 56' 29.130" N, 146° 36' 18.584" W

Least Depth: -0.30 m

Timestamp: 2005-247.15:45:07.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 2/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 1ft (16707_1, 531_1)

-.3m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -0.298 m

Office Notes

Chart new rock.

Feature Images

Figure 2.10.1

2.11) Profile/Beam - 3/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 56' 27.989" N, 146° 36' 25.752" W

Least Depth: 0.22 m

Timestamp: 2005-247.15:48:16.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 3/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 0ft (16707_1, 531_1)

.2m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 0.222 m

Office Notes

Chart new rock.

2.12) Profile/Beam - 5/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 56' 52.198" N, 146° 40' 34.985" W

Least Depth: -0.23 m

Timestamp: 2005-247.16:54:36.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 5/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW LDG

QUA: GPSmode=2, SVs=9, HDOP=0.90

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 1ft (16707_1, 531_1)

-.3m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new ledge.

Feature Images

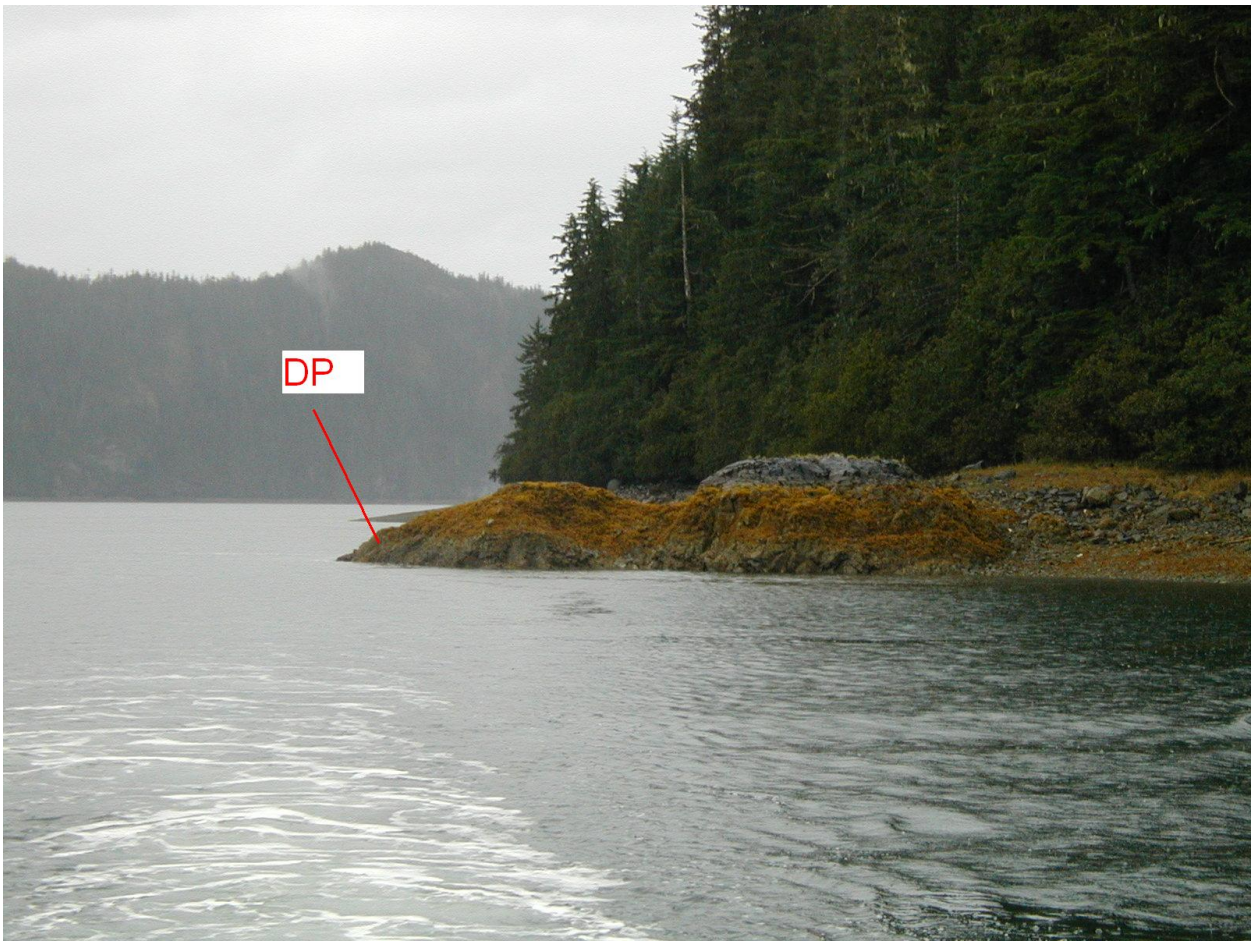


Figure 2.12.1

2.13) Profile/Beam - 6/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 56' 54.380" N, 146° 40' 24.796" W

Least Depth: -0.24 m

Timestamp: 2005-247.16:56:11.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 6/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW LDG

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 1ft (16707_1, 531_1)

-.3m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new ledge.

Feature Images

Figure 2.13.1

2.14) Profile/Beam - 9/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position:	060° 56' 56.589" N, 146° 41' 23.812" W
Least Depth:	0.02 m
Timestamp:	2005-247.17:37:41.000 (09/04/2005)
DP Dataset:	h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247
Profile/Beam:	9/1
Charts Affected:	16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	9/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 0ft (16707_1, 531_1)

.0m (500_1, 50_1)

S-57 Data

Geo object 1:	Underwater rock / awash rock (UWTROC)
Attributes:	VALSOU - 0.018 m

Office Notes

Chart new rock.

2.15) Profile/Beam - 11/1 from h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Survey Summary

Survey Position: 060° 57' 23.115" N, 146° 41' 42.004" W

Least Depth: -0.18 m

Timestamp: 2005-247.18:22:09.000 (09/04/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-247 / dp_1101_247

Profile/Beam: 11/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW REEF SW Extent

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	11/1	0.00	000.0	Primary
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	2/1	31.18	184.9	Secondary
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	10/1	39.86	234.2	Secondary (grouped)
h11350/1101_nonechosounder_dp/2005-247/dp_1101_247	12/1	68.94	210.6	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 0ft (16707_1, 531_1)

-.2m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

New reef delineated from points. Chart new reef.

2.16) Profile/Beam - 1/1 from h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Survey Summary

Survey Position: 060° 57' 06.914" N, 146° 45' 49.985" W

Least Depth: -1.42 m

Timestamp: 2005-260.15:41:09.000 (09/17/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Profile/Beam: 1/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

HP NEW REEF

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-260/dp_817_260	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16700_1, 16013_1)

0fm 4ft (16707_1, 531_1)

-1.4m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart high point on new reef.

Feature Images

Figure 2.16.1 Facing SW

2.17) Profile/Beam - 3/1 from h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Survey Summary

Survey Position: 060° 56' 59.756" N, 146° 46' 08.803" W

Least Depth: 0.50 m

Timestamp: 2005-260.15:59:03.000 (09/17/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Profile/Beam: 3/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=9, HDOP=0.90

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-260/dp_817_260	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 1ft (16707_1, 531_1)

.5m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - New Rk

VALSOU - 0.502 m

WATLEV - 5:awash

Office Notes

Chart new rock.

Feature Images

Figure 2.17.1 Facing NE

2.18) Profile/Beam - 7/1 from h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Survey Summary

Survey Position: 060° 57' 32.004" N, 146° 44' 57.642" W

Least Depth: -0.63 m

Timestamp: 2005-260.17:18:12.000 (09/17/2005)

DP Dataset: h11350 / 817_nonechosounder_dp / 2005-260 / dp_817_260

Profile/Beam: 7/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/817_nonechosounder_dp/2005-260/dp_817_260	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 2ft (16707_1, 531_1)

-.7m (500_1, 50_1)

S-57 Data

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

Attributes: INFORM - New Rk

VALSOU - -0.629 m

WATLEV - 5:awash

Office Notes

Chart new rock.

Feature Images

Figure 2.18.1 Facing E

2.19) Profile/Beam - 4/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 57' 45.431" N, 146° 42' 56.542" W

Least Depth: -1.51 m

Timestamp: 2005-260.16:25:42.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 4/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=8, HDOP=1.40

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16708_1, 16700_1, 16013_1)

0fm 5ft (16707_1, 531_1)

-1.5m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -1.515 m

Office Notes

Chart new rock.

Feature Images

Figure 2.19.1

2.20) Profile/Beam - 5/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 58' 18.327" N, 146° 43' 16.478" W

Least Depth: 0.33 m

Timestamp: 2005-260.16:47:24.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 5/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW Dangerous SUBM RK

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 1ft (16707_1, 531_1)

.3m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 0.325 m

Office Notes

Chart new rock.

2.21) Profile/Beam - 6/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 58' 39.434" N, 146° 43' 14.152" W

Least Depth: 0.35 m

Timestamp: 2005-260.16:59:15.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 6/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW Dangerous SUBM RK

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 1ft (16707_1, 531_1)

.3m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 0.353 m

Office Notes

Chart new rock.

2.22) Profile/Beam - 8/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 59' 04.176" N, 146° 42' 14.194" W

Least Depth: -0.72 m

Timestamp: 2005-260.17:35:49.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 8/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=9, HDOP=0.90

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	8/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (16708_1, 16700_1, 16013_1)

0fm 2ft (16707_1, 531_1)

-.7m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - -0.718 m

Office Notes

Chart new rock.

2.23) Profile/Beam - 11/1 from h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Survey Summary

Survey Position: 060° 58' 45.011" N, 146° 43' 32.110" W

Least Depth: 0.97 m

Timestamp: 2005-260.18:04:31.000 (09/17/2005)

DP Dataset: h11350 / 1103_nonechosounder_dp / 2005-260 / dp_1103_260

Profile/Beam: 11/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK, depth determined with lead line

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

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1103_nonechosounder_dp/2005-260/dp_1103_260	11/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16700_1, 16013_1)

0fm 3ft (16707_1, 531_1)

.9m (500_1, 50_1)

S-57 Data

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

Attributes: TECSOU - 5:found by lead-line

VALSOU - 0.969 m

Office Notes

Chart new rock.

2.24) Profile/Beam - 1/1 from h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Survey Summary

Survey Position: 060° 56' 10.599" N, 146° 39' 53.638" W

Least Depth: 1.17 m

Timestamp: 2005-260.16:05:40.000 (09/17/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Profile/Beam: 1/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

NEW RK

QUA: GPSmode=2, SVs=8, HDOP=1.30

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-260/dp_1101_260	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (16708_1, 16700_1, 16013_1)

0fm 4ft (16707_1, 531_1)

1.1m (500_1, 50_1)

S-57 Data

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

Attributes: VALSOU - 1.167 m

Office Notes

Chart new rock.

Feature Images

Figure 2.24.1 Facing South

2.25) Profile/Beam - 3/1 from h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Survey Summary

Survey Position: 060° 56' 04.045" N, 146° 40' 00.331" W

Least Depth: -0.16 m

Timestamp: 2005-260.16:20:23.000 (09/17/2005)

DP Dataset: h11350 / 1101_nonechosounder_dp / 2005-260 / dp_1101_260

Profile/Beam: 3/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

W EXT NEW LDG

QUA: GPSmode=2, SVs=7, HDOP=1.60

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1101_nonechosounder_dp/2005-260/dp_1101_260	3/1	0.00	000.0	Primary
h11350/1101_nonechosounder_dp/2005-260/dp_1101_260	2/1	29.67	257.0	Secondary (grouped)

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

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

0fm 0ft (16707_1, 531_1)

-.2m (500_1, 50_1)

S-57 Data

Geo object 1: Cartographic symbol ($CSYMB)

Office Notes

Chart new ledge.

Feature Images

Figure 2.25.1 Facing East

2.26) Profile/Beam - 343/1 from h11350 / 1006_reson8101_hvf / 2005-271 / 498_2008

Survey Summary

Survey Position: 060° 56' 12.217" N, 146° 42' 46.490" W

Least Depth: 1.42 m

Timestamp: 2005-271.20:09:25.099 (09/28/2005)

Survey Line: h11350 / 1006_reson8101_hvf / 2005-271 / 498_2008

Profile/Beam: 343/1

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Chart least depth.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1006_reson8101_hvf/2005-271/498_2008	343/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: TECSOU - 3:found by multi-beam

Office Notes

Update charted (16707) rock with VALSOU, TECSOU, WATLEV, SORDAT and SORIND.

3 - Dangers to Navigation

3.1) Profile/Beam - 330/89 from h11350 / 1006_reson8101_hvf / 2005-246 / 221_0222

DANGER TO NAVIGATION

Survey Summary

Survey Position: 060° 56' 30.600" N, 146° 40' 00.057" W

Least Depth: 8.87 m

Timestamp: 2005-247.02:24:10.460 (09/04/2005)

Survey Line: h11350 / 1006_reson8101_hvf / 2005-246 / 221_0222

Profile/Beam: 330/89

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Shoal Sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1006_reson8101_hvf/2005-246/221_0222	330/89	0.00	000.0	Primary
h11350/dive/2005-260/h11350_dive_dp	1/1	0.00	000.0	Secondary

Hydrographer Recommendations

Cartographically-Rounded Depth (Affected Charts):

4 ¾fm (16708_1, 16700_1, 16013_1)

4fm 5ft (16707_1, 531_1)

8.8m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Attributes: INFORM - Shoal Sounding

QUASOU - 1:depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VERDAT - 12:Mean lower low water

Office Notes

Shoal sounding was reported as a DTON and is reflected on current version of raster chart 16707. Retain sounding as charted. See correlating item 1103_260_1.

Feature Images

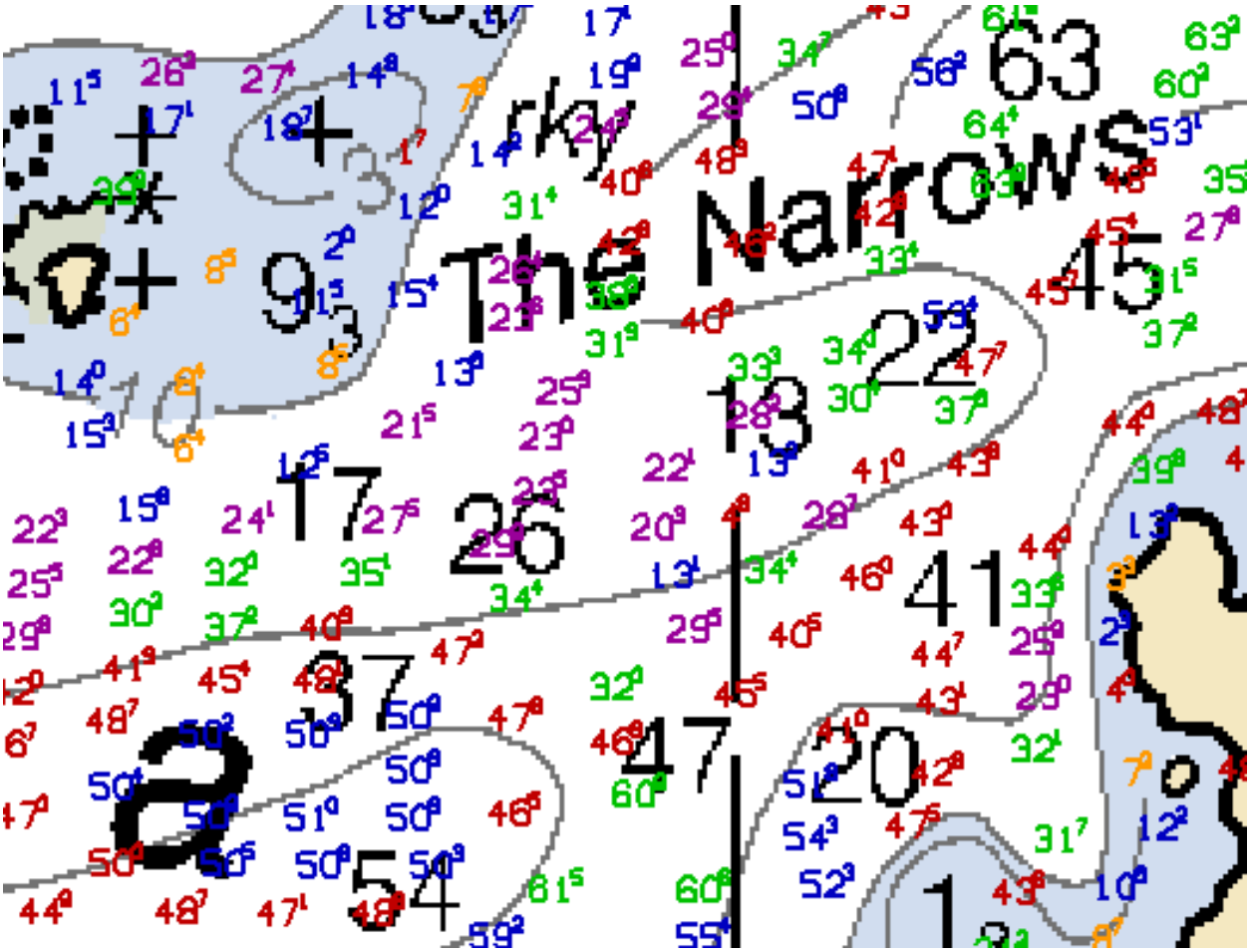


Figure 3.1.1

3.2) Profile/Beam - 1709/215 from h11350 / 1016_reson8125_hvf / 2005-260 / 201_1932

DANGER TO NAVIGATION

Survey Summary

Survey Position: 060° 58' 52.706" N, 146° 42' 31.911" W

Least Depth: 5.19 m

Timestamp: 2005-260.19:34:47.058 (09/17/2005)

Survey Line: h11350 / 1016_reson8125_hvf / 2005-260 / 201_1932

Profile/Beam: 1709/215

Charts Affected: 16707_1, 16708_1, 16700_1, 16013_1, 531_1, 500_1, 50_1

Remarks:

Shoal Sounding

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11350/1016_reson8125_hvf/2005-260/201_1932	1709/215	0.00	000.0	Primary

Hydrographer Recommendations

Chart as Shoal Sounding

Cartographically-Rounded Depth (Affected Charts):

2 ¾fm (16708_1, 16700_1, 16013_1)

2fm 5ft (16707_1, 531_1)

5.2m (500_1, 50_1)

S-57 Data

Geo object 1: Sounding (SOUNDG)

Office Notes

Concur with clarification. Shoal sounding was reported as a DTON and is reflected on current version of raster chart 16707. Retain sounding as charted.

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : January 10, 2006

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-P132-RA-2005
HYDROGRAPHIC SHEET: H11350

LOCALITY: Galena Bay, Prince William Sound, AK
TIME PERIOD: September 4-October 3, 2005

TIDE STATION USED: Columbia Glacier, AK 945-4460
Lat. 61 01.4′ N Long. 147 05.1' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.384 meters

TIDE STATION USED: Valdez, AK 945-4240
Lat. 61 07.5' N Long. 146 21.8' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.417 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: PWS67

Refer to attachments for zoning information.

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

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

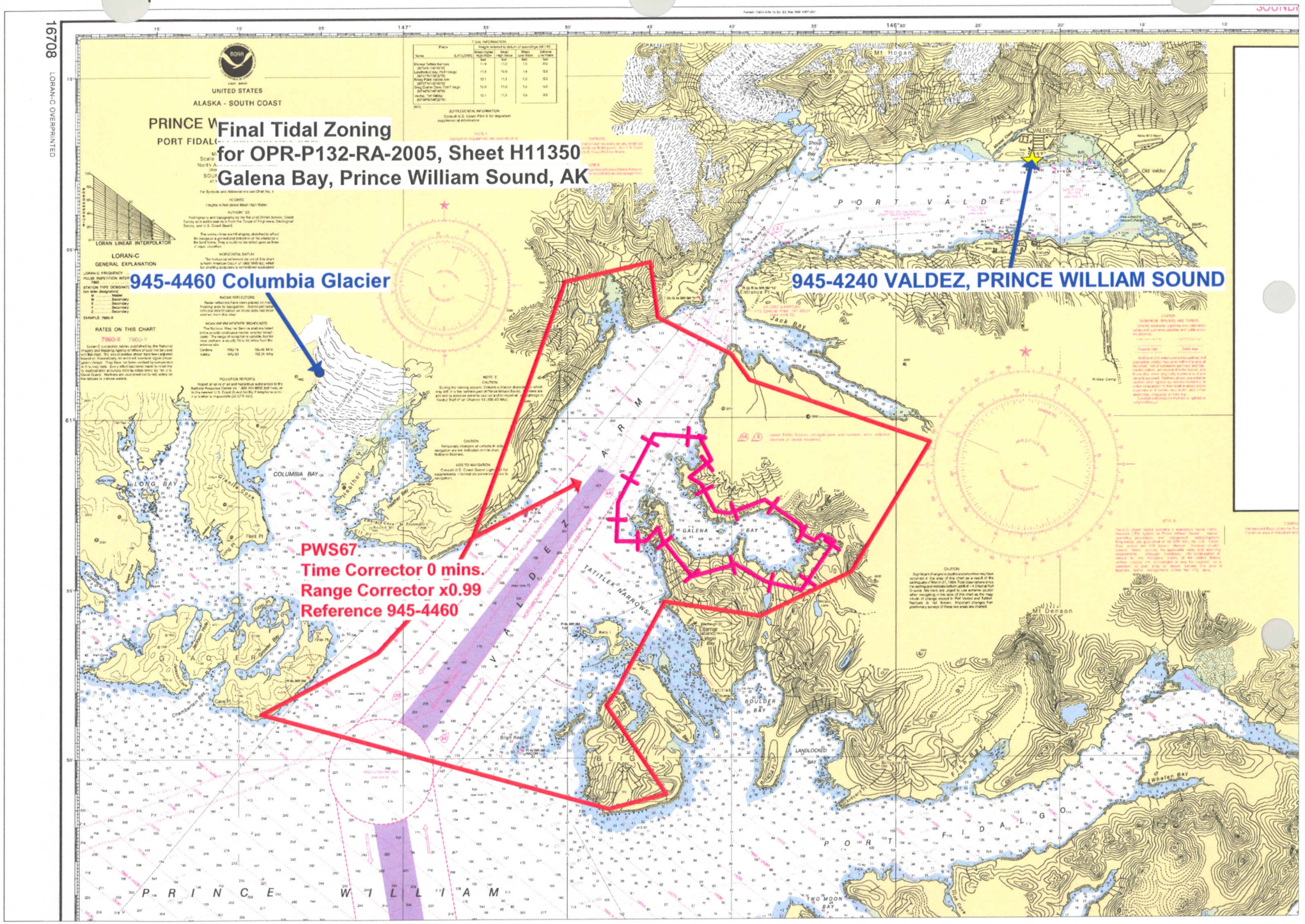
CHIEF, PRODUCTS AND SERVICES DIVISION

Final tide zone node point locations for OPR-P132-RA-2005, H11350

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

	Tide Station Order	AVG Time Correction	Range Correction
PWS67	945-4460	0	x0.99
	945-4240	0	x0.98

-147.1433 60.855198
-147.025646 60.885186
-146.948102 60.925559
-146.928717 60.942475
-146.835761 61.066624
-146.749176 61.076016
-146.741526 61.049043
-146.666789 61.03092
-146.648105 61.018294
-146.465267 60.987839
-146.544989 60.924153
-146.637467 60.902731
-146.734514 60.910021
-146.76628 60.881842
-146.784771 60.8652
-146.793773 60.859141
-146.732848 60.815648
-146.791093 60.808252
-147.1433 60.855198


16708
LORAN-C OVERPRINTED
UNITED STATES
ALASKA - SOUTH COAST
Final Tidal Zoning
for OPR-P132-RA-2005, Sheet H11350
Galena Bay, Prince William Sound, AK
945-4460 Columbia Glacier
945-4240 VALDEZ, PRINCE WILLIAM SOUND
PWS67
Time Corrector 0 mins.
Range Corrector x0.99
Reference 945-4460
LORAN LINEAR INTERPOLATOR
LORAN-C
GENERAL EXPLANATION
RATES ON THIS CHART
Mt Hogan
Shoup Bay
VALDEZ
Old Valdez
PORT VALDEZ
Jack Bay
Entrance Pt
Mt Misery
COLUMBIA BAY
LONG BAY
Flint Pt
Granite Cove
Chamberlain Bay
GALENA BAY
TATITLEK NARROWS
Eleanor Island
Alpen Rock
BOULDER BAY
LANDLOCKED BAY
Mt Denson
Fish Bay
Whalen Bay
PORT FIDALGO
PRINCE WILLIAM
TWO MOON BAY
Midas Camp

H11350 HCell Report

Katie Reser, Physical Scientist
Pacific Hydrographic Branch

Introduction

The primary purpose of the HCell is to directly update NOAA ENCs with new survey information in International Hydrographic Organization (IHO) format S-57. HCell compilation of survey H11350 utilized Office of Coast Survey H-Cell Specifications Version 3.0, May 2008 and Hcell User Guide Version 1.1, June 2008. HCell H11350 will be used to update charts 16707, 1:40,000 (12th Ed.; December 2005, NM 9/20/2008), 16708, 1:79,291 (26th Ed.; October 2004, NM 9/20/2008), 16700, 1:200,000 (30th Ed.; December 2007, NM 9/20/2008), US5AK23M and US3AK21M.

1. Compilation Scale

The density of soundings in the HCell are compiled as appropriate to emulate those soundings of Chart 16707, 1:40,000. Position and density of non-bathymetric features included in the HCell have not been generalized from the scale of the hydrographic survey H11350.

2. Soundings

2.1 Source Data

One 10-meter resolution Combined BASE surface, **H11350 _Combined** was used as the basis for HCell production following Branch certification.

A survey-scale sounding (SOUNDG) feature object source layer was built from the **H11350 _Combined** surface in CARIS BASE Editor. A shoal-biased selection was made at 1:10,000 survey scale using a radius table with values shown in **Table 1**.

Upper limit (m)	Lower limit (m)	Radius (mm)
0 10		3
10 20		4
20 50		4.5
50 400		5

Table 1

2.2 Sounding Feature Objects

In CARIS BASE Editor soundings were manually selected from the high density sounding layers from H11350 and imported into a new layer created to accommodate chart density depths. Manual selection was used to accomplish a density and distribution

that more closely represents the seafloor morphology and that emulates density and distribution of soundings on chart 16707 than is possible using automated methods. See section 10.1, Data Processing Notes, for details about the use of manual sounding selection for H11350. The sounding feature object source layer was exported as **H11350 _CS**, and imported into HOM.

3. Depth Areas

3.1 Source Data

Using the combined BASE surface **H11350_Combined** and areas delineated as ledges or extents of the mean lower low water line, two depth areas were generated and separated by a zero meter contour. No other depth contours were delivered per OCS HCell Specifications ver.3.0 and Hcell User Guide ver. 1.1.

3.2 Depth Area Feature Objects

Two depth ranges, -3.2 meters to 0 meters and 0 meters to 375 meters, were used for all depth area objects. Upon conversion to NOAA charting units, this depth range is -1.7 fathoms to 0 fathoms and 0 fathoms to 205 fathoms.

4. Meta Areas

The following Meta object areas are included in HCell 11350:

M_QUAL
M_COVR

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

5. Survey Features

H11350 contains two DTONs. One DTON is a 4 fm 5 ft shoal sounding located at 60-56-30.605 N, 146-40-00.048 W. The DTON was reported by the field and has been applied to the affected charts. The other DTON is a 2 fm 5ft shoal sounding at 60-58-52.706 N, 146-42-31.911 W. The DTON was reported by the field and has been applied to the affected charts.

H11350 contains no AWOIS items.

Two bottom samples were collected with H11350. All charted bottom samples, with the exception of three "rocky" notations and one "hrd" notation, within the surveyed area were imported into the H11350 HCell. In the area where the "rocky" and "hrd" notations were removed, they were replaced by rocky seabed area features delineated from the BASE surface.

The source of all features included in the H11350 HCell can be determined by the SORIND field. For the rock/islet determination, the Tide Note value for MHW (-3.417 meters) was used. The following is the HOM layering scheme for the features imported into the H11350 HCell:

901 CFF Shoreline

902 Charted Shoreline

903 Field Disprovals – Items disproved using either 100% multi beam or a star pattern investigation with single beam.

999 De-conflicted Features – Example: an islet found to be connected to shore at MLLW that is located in an existing ledge area that was noted by the field. The extents showing the connection of the islet to shore were moved to the de-conflicted layer.

Shoreline Features

Shoreline features for H11350 were delivered in nine different files. There is some redundancy of features between the files.

- H11350_CFF_Shoreline.hob (the original source data from GC 10540)
- H11350_CHD_Shoreline.hob (digitized charted shoreline features not seen in the CFF)
- H11350_ADD_Ntbk.hob (new features digitized in Notebook using DPs or VBES)
- H11350_MODIFY_Ntbk.hob (features modified in Notebook using DPs or VBES)
- H11350_DELETE_Ntbk.hob (original source or charted features that were modified or disproved)
- H11350_ADD_PYDRO.hob (new feature or bottom samples processed in Pydro)
- H11350_MODIFY_PYDRO.hob (modified features or bottom samples processed in Pydro)
- H11350_DELETE_PYDRO.hob (disprovals processed in Pydro)
- **H11350_NONE_PYDRO.hob (supposed to be noted charted or CFF source features processed in Pydro, but the submitted file was empty)

6. Shoreline / Tide Delineation

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

7. Attribution

All S-57 Feature Objects have been attributed as fully as possible based on information provided by the Hydrographer and in accordance with OCS H-Cell Specifications, ver. 3.0 and Hcell User Guide ver. 1.1.

8. Layout

8.1 CARIS HOM Layering Scheme

100	Chart scale soundings
101	Survey scale soundings
200	Group 1 objects (Skin of the Earth)
300	Point objects
400	Line objects
500	Area objects
600-601 Meta	layers
800	Items used for creation of Blue Notes
900	Contours
901-903 Features	imported from source files
999	Deconflicted shoreline features

8.2 Blue Notes

Notes regarding data sources are in CARIS HOM as layer 800 and as Shapefile sets **H11350_bluenotes_p** and **H11350_bluenotes_l** (with the appropriate extensions) for point and line figures, respectively.

9. Spatial Framework

9.1 Coordinate System

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

9.2 Horizontal and Vertical Units

During creation of sounding sets in CARIS BASE Editor, and creation of the HCell in CARIS HOM, units are maintained as metric with millimeter resolution. NOAA

rounding is applied at the same time that conversion to chart units is made to the metric HCell base cell file, at the end of the HCell compilation process.

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

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

HOM Units

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

Chart Unit Base Cell Units

Depth Units (DUNI):	Fathoms and feet
Height Units (HUNI):	Feet (or fathoms and feet above 6 feet)
Positional Units (PUNI):	Meters

10. QA/QC

10.1 Data Processing Notes

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

10.2 ENC Validation Checks

H11350 was subjected to QA and Validation checks in HOM prior to exporting to the HCell base cell (000) file. Full millimeter precision was retained in the export of the metric S-57 base cell data set. This data set was converted to a chart unit 000 file. dKart Inspector 5.1 was then used to further check the data set for conformity using the S-58

ver. 2 standard (formerly Appendix B.1 Annex C of the S-57 standard). All tests were run and errors investigated and corrected where necessary.

11. Products

11.1 HSD, MCD and CGTP Deliverables

- H11350 Base Cell File, Chart Units, Soundings compiled to 1:40,000
- H11350 Base Cell File, Chart Units, Soundings compiled to 1:10,000
- H11350 Descriptive Report including end notes compiled during office processing and certification
- H11350 HCell Supplemental Report
- Blue Notes shape files

11.2 File Naming Conventions

HOM file set prefix: *H11350_hc*

MCD Chart units base cell file: *US511350_CS.000*

MCD Chart units base cell file, survey scale soundings: *US511350_SS.000*

11.3 Software

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

12. Contacts

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

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

APPROVAL SHEET
H11350

Initial Approvals:

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

Katie Reser
2008.11.24
08:54:47 -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.

Gary C. Nelson
2008.11.24
10:29:42 -08'00'

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

Digitally signed by David Neander
DN: cn=David Neander, o=Pacific Hydrographic Branch, ou=NOAA/NOS/OCS/HSD, email=dave.neander@noaa.gov, c=US
Date: 2008.11.24 10:37:52 -08'00'

AWOIS and SURF Check completed
2008.11.25 08:41:17 -05'00'