H11119

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-10-07-04

Registry No. H-11119

LOCALITY

State Alaska

General Locality Approaches to Sitka

Sublocality Chaechei Islands to Inner Point

2004

CHIEF OF PARTY
CDR John W. Humphrey, NOAA

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

HYDROGRAPHIC TITLE SHEET

H11119

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-10-07-04

State: Alaska

General Locality: Approaches to Sitka

Sublocality: Chaechei Islands to Inner Point

Scale: 1:10,000

Date of Survey: 5/27/2004 - 6/10/2004

Instructions Date: 3/30/2004

Project No.: OPR-O112-RA-04

Vessel: NOAA Ship launches 1006, 1016, 1121, 1101, 1103

Chief of Party: CDR John W. Humphrey, NOAA

Surveyed by: RAINIER Personnel

Soundings taken by echo sounder: Knudsen 320M, Reson SeaBat 8101, 8125

Graphic record scaled by: RAINIER Personnel

Graphic record checked by: RAINIER Personnel

Evaluation by: R. Davies

Automated plot by: HP Designjet 1050C

Verification by: R. Davies, E. Domingo

Soundings in: Fathoms and tenths at MLLW

REMARKS: Time in UTC. UTM Projection Zone 8

Revisions and annotations appearing as endnotes were generated during office processing.

All separates are filed with the hydrographic data.

As a result, page numbering may be interrupted or non-sequential

Descriptive Report to Accompany Hydrographic Survey H11119

Project OPR-O112-RA-04
Approaches to Sitka, AK
Scale 1:10,000
May – June 2004
NOAA Ship RAINIER
Chief of Party: Commander John W. Humphrey, NOAA

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-O112-RA-04, dated March 30, 2004, Draft Standing Project Instructions dated March 23, 2004, and NOS Hydrographic Specifications and Deliverables dated March 2003. The survey area is Chaichei Islands to Inner Point. This survey corresponds to sheet "O" in the sheet layout provided with the Letter Instructions.

One hundred percent shallow-water multibeam (SWMB) coverage was obtained in the survey area in waters 8 meters and deeper. In 4-8 meters of water coverage was obtained as much as possible and 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 four-meter curve and to aid in the planning of SWMB data acquisition.[1]

Data acquisition was conducted from May 27, 2004 to June 10, 2004 (DN 148 to 162).

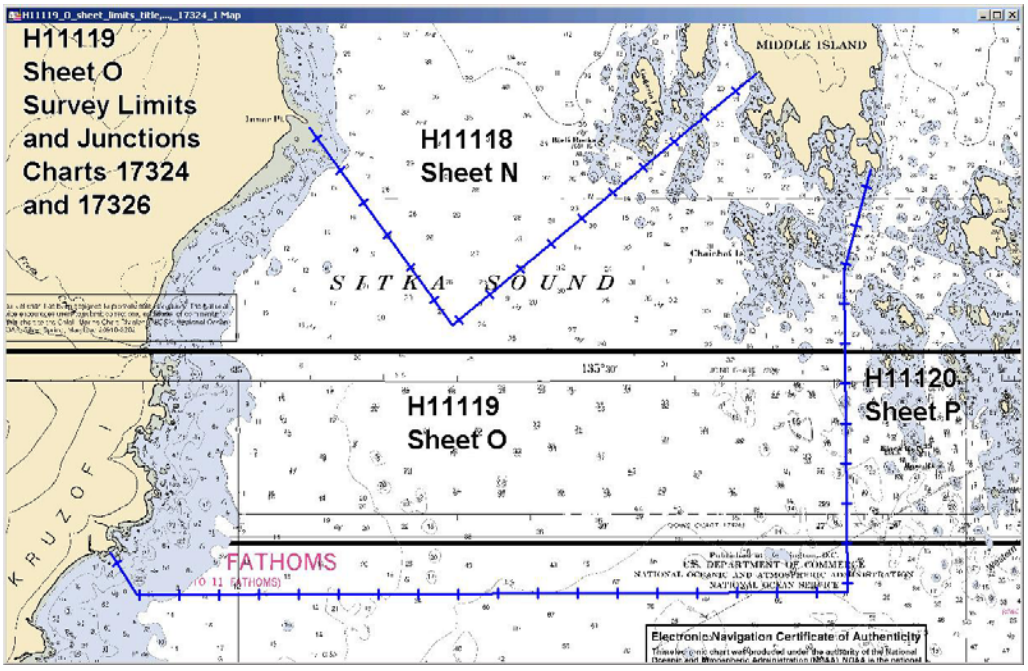


Figure 1. H11119 Survey Limits and Junctions

B. DATA ACQUISTION AND PROCESSING

A complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods can be found in the *OPR-O112-RA-04 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.

B1. Equipment and Vessels

Data were acquired by the RAINIER survey launches 1006, 1016, 1021, 1101, and 1103. Vessels 1006, 1016, and 1021 were used to acquire shallow-water multibeam (SWMB) soundings and sound velocity profiles. Vessels 1101 and 1103 were used to acquire vertical-beam echo soundings (VBES) and detached positions (DPs) for shoreline. Vessel 1006 was also used to collect bottom samples.

No unusual vessel configurations were used for data acquisition. [3]

B2. Quality Control

Crosslines

Vertical Beam Echo Sounder (VBES) crosslines including shoreline buffer lines totaled 56.86 nautical miles, comprising 15.22% of main scheme hydrography. VBES crosslines were manually compared to VBES and SWMB mainscheme lines for consistency in CARIS subset mode. Crosslines generally agreed within .75 meter of mainscheme hydrography however, greater differences were noted.[4] The discrepancy is a result of uncompensated vessel motion (heave) of the VBES data acquired in sea states greater than one foot and swells of three to four feet. The Hydrographer flagged as "rejected" VBES data that did not met accuracy standards defined in the NOS Hydrographic Surveys Specifications and Deliverables Manual (HSSDM) with no determent to data coverage. [5]

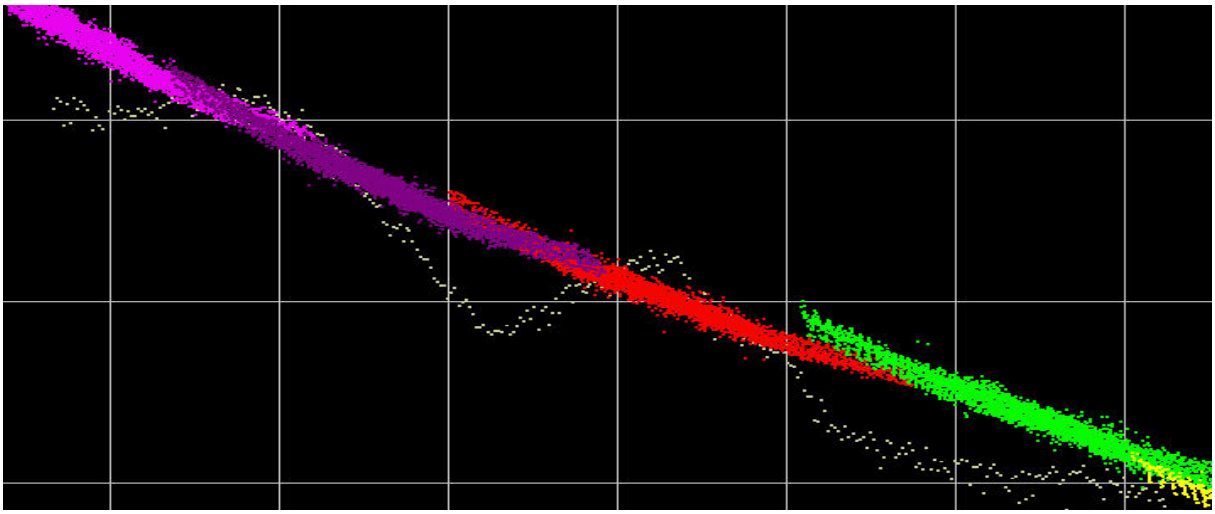


Figure 2. VBES (white line) compared to SWMB lines in CARIS subset mode.

Shallow-Water Multibeam (SWMB) crosslines totaled 14.19 nautical miles, comprising 3.80% of SWMB hydrography. The main scheme bathymetry was manually compared to the XL nadir beams in CARIS subset mode and agreed well, with differences averaging approximately 0.5 meter. [6]

A statistical Quality Control Report was generated for data acquired on the Lake Washington Reference Surface with each system used on this survey and is included in the *OPR-O112-RA-04 DAPR*.

A Quality Control Report was generated using Reson 8101 crosslines for survey H11119. The average crossline to mainscheme comparison was 93.5% using depth error tolerances that conform to the Internal Hydrographic Organization Order 2 specifications as detailed in the Special Publication S-44, Edition 4 and, NOAA depth accuracy standards as set forth in the HSSDM. The comparison may be flawed since all cross lines were acquired with a single vessel on one day (vessel number1006 with a Reson 8101 sonar on day number 155). Also the sound velocity casts were taken in close proximity to one another (*see Figure 3*) resulting in less than ideal representation of the actual SVP. [7]

Through manual examination of the data and statistical analysis of data, accuracy standards for this survey have been met. [8]

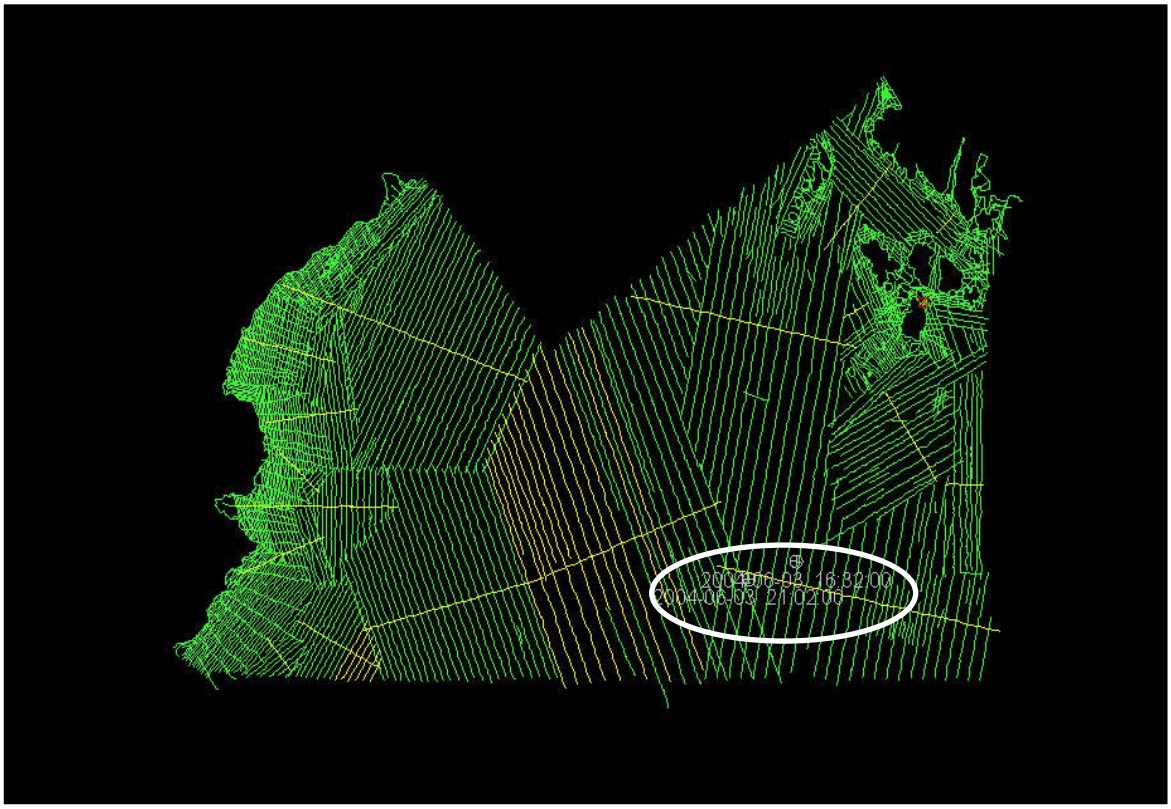


Figure 3. Day number 155 track lines (yellow) and SVP casts (white) for vessel 1006

Junctions [9]

The following contemporary surveys junctions with H11119.

Registry #	Scale	Date	Junction side
H11118	1:10,000	2004	North
H11120	1:10,000	2003	East

A cursory comparison indicates differences are less than 1.8 meters. Final comparisons will be made at the Pacific Hydrographic Branch (PHB) after the application of smooth tides.[10]

Data Quality Factors

After correction for sound velocity in CARIS HIPS & SIPS, many lines still exhibited the characteristic "smiles" and "frowns" indicative of inaccurate sound velocity corrections (*see Figures 4 and 5*). Despite the best efforts of the Hydrographer to conduct sufficient sound velocity casts distributed both spatially and temporally, and to correct for sound velocity errors in post processing, sound velocity errors were still noticeable in many areas. To compensate, the Hydrographer, where possible, increased filtering and rejected soundings obviously in error on the outer beams.

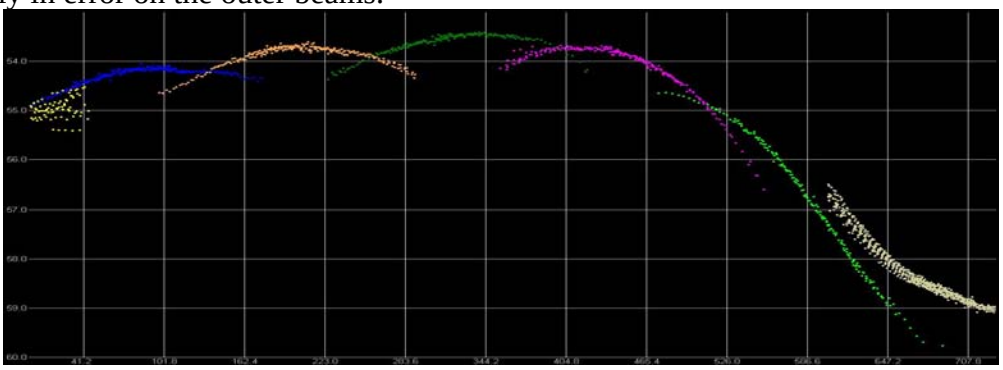


Figure 4. Inaccurate Sound Velocity Resulting in "Frowns"

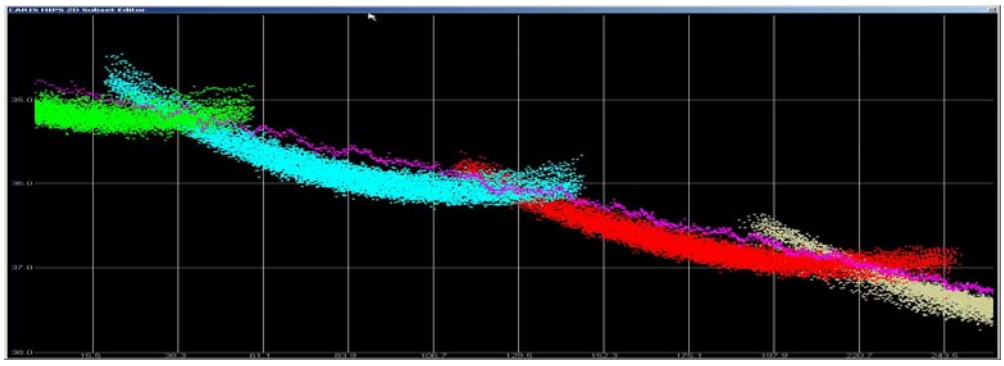


Figure 5. Inaccurate Sound Velocity Resulting in "Smiles"

(Smiles: VN1006 DN:155,157; VN 1016 DN 155 / Frown: VN 1021 DN155)

Moderate to heavy seas were noted on many days of data acquisition. The rough sea state made acquisition with the survey instrumentation very difficult and the motion sensor was not able to completely compensate for vessel motion, resulting in heave and pitch artifacts in the data set.

During subset cleaning (VN 1016: day number 148 and 154) "bowties" (spread of the outer most beams) were observed (see *Figure 6*). A possible reason for this includes a variable latency between the motion sensors and the Reson 8125 sonar due to the sea state on those days. In subset cleaning, were there was sufficient overlapping coverage, the extreme ends of the "bowtie" were manually rejected.

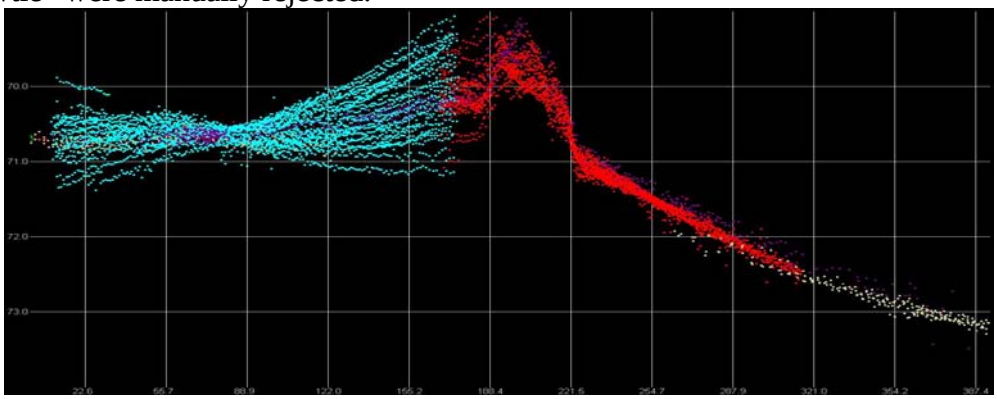


Figure 6. Bowtie

On day number157 (vessel 1006, Reson 8101), consecutive lines run in opposite directions were offset approximately 0.2m in 10meters of water when observed in CARIS HIPS subset mode (*see Figure 7*). This data meets accuracy standard defined in the HSSDM however, the reason for this phenomenon has yet to be determined.

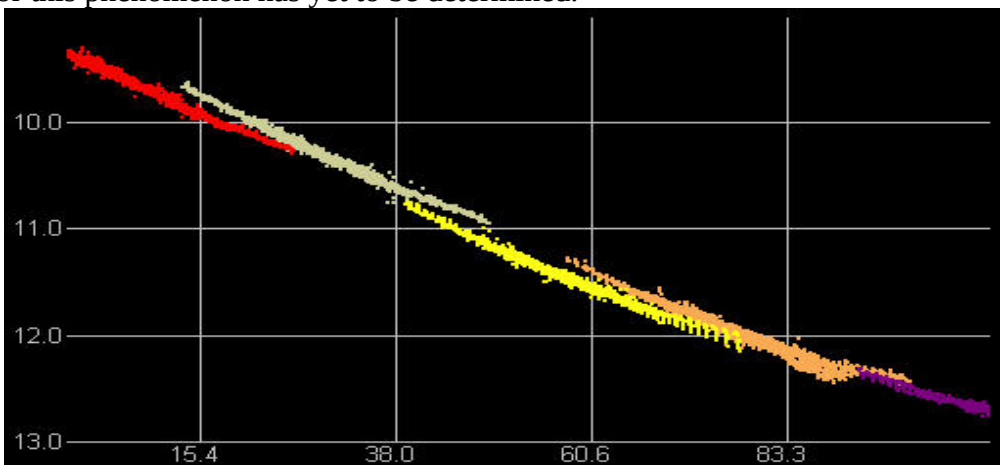


Figure 7. Vertical offset between-lines run in opposite directions

B3. Data Reduction

Data reduction procedures for survey H11119 conform to those detailed in the *OPR-O112-RA-04 DAPR.*

C. VERTICAL AND HORIZONTAL CONTROL

A summary of horizontal and vertical control for this survey follows.

Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Differential GPS (DGPS) was the sole method of positioning. Differential corrections from U.S. Coast Guard beacon at Gustavus (288 kHz) were utilized during this survey. Launch-to-launch DGPS performance checks using U.S. Coast Guard beacon at Annette Island (323 kHz) as the check station were performed in accordance with Section 3.2 of the Field Procedure Manual (FPM). Copies of the performance checks are included in the *OPR-O112-RA-04 DAPR*.

Vertical Control

The vertical datum for this project is Mean Lower-Low Water (MLLW). The operating National Water Level Observation Network (NWLON) primary tide station at Sitka, AK (945-1600) served as control for datum determination and as the primary source for water level reducers for survey H11119.

No secondary gauges were required.

All data were reduced to MLLW using unverified observed tides from station Sitka, AK using the tide file 9451600.tid and time and height correctors using the zone corrector file O112RA2004CORP.zdf.

The Pacific Hydrographic Branch will apply final approved (smooth) tides to the survey data during final processing.[11] A request for delivery of final approved (smooth) tides for survey H11119 was forwarded to N/OPS1 on June 14, 2004. A copy of the request is included in Appendix IV. [12]

D. RESULTS AND RECOMMENDATIONS

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

No AWOIS items were located within the survey limits of H11119. [13]

D.2 Chart Comparison

Survey H11119 was compared with charts:
17324 (13th Ed.; March 25, 1989, 1:40,000, corrected through NTM 05/04) [14]
17326 (13th Ed., August 5, 2000, 1:40,000, corrected through NTM 49/01) [15]

Chart 17324

Depths from survey H11119 agreed with chart 17324 within 0.3 to 1.8 meters. Soundings from H11119 tended to be shoaler than charted soundings. In many instances, this survey found shoaler soundings between charted soundings, especially in the eastern areas of the

sheet near the Chaichei Islands. This can be attributed to the rocky bottom combined with increased bottom coverage using SWMB. [16]

Chart 17326

Depths from survey H11119 agreed with chart 17326 within 0.5 to 1.8 meters with no bias towards shoaling in either near shore or offshore areas. In many instances, this survey found shoaler soundings between charted soundings, especially in the near shore areas. This can be attributed to increased bottom coverage using SWMB.[17]

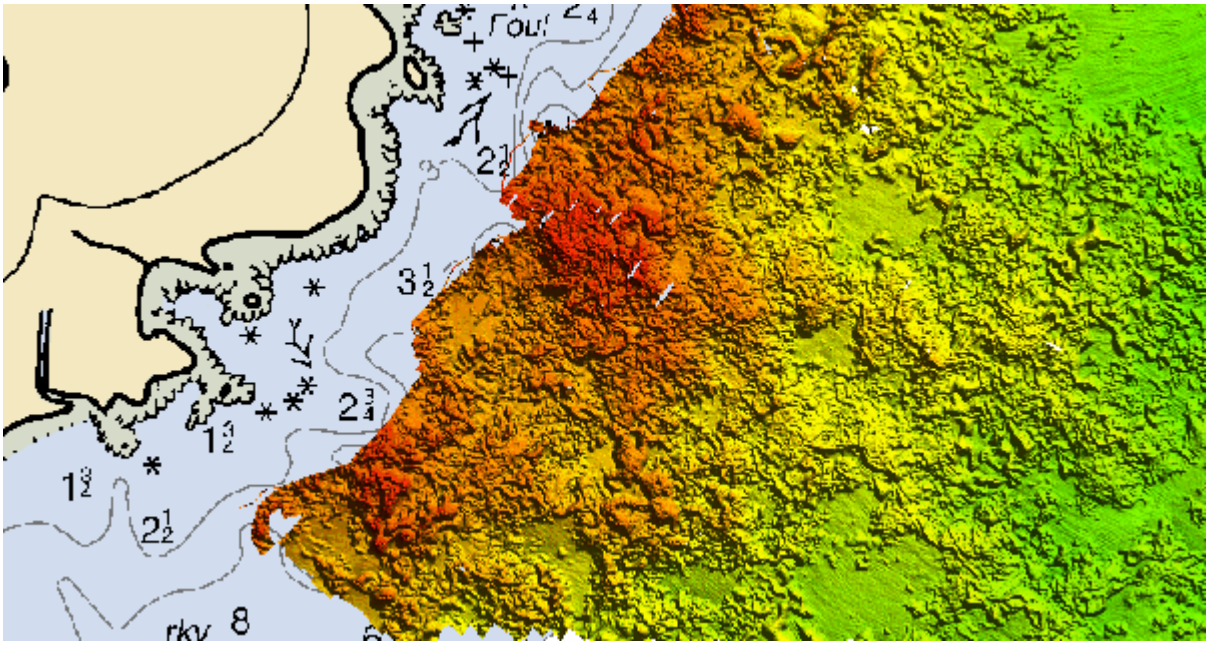


Figure 8. Example of dynamic near shore bathymetry

D.3 Shoreline

Shoreline Source

Vector photogrammetric projects GC10516 were supplied by N/NGS3 in the form of cartographic feature files (CFF). RAINIER conducted limited shoreline verification of the CFF. In the absence of CFF MHW or CFF MLLW, RAINIER personnel digitized the largest scale charts in MapInfo and displayed in HYPACK for field verification. In addition, features shown on the current editions of charts 17324 and 17326, 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

Shoreline verification was conducted near predicted low water in accordance with the Standing Project Instructions and FPM sections 6.1 and 6.2. Detached positions (DPs) taken during shoreline verification were recorded in HYPACK and on DP forms, and processed in Pydro. These indicate revisions to features and features not found on the verified shoreline.

In addition, annotations describing shoreline were recorded on hard copy plots of digital shoreline. DP forms are included in Section I of the *Separates to be Included with Survey Data.* [18]

A detailed Detached Position and Bottom Sample plot [19] in MapInfo format is provided showing all detached positions and bottom samples with notes relating to each feature. The updated shoreline and features are also depicted on the final sounding plot. Verified CFF shoreline that did not require revision is in MapInfo table H11119_CFF_Shoreline and shown in black. New MHW features and changes to the MHW shoreline and displayed in red, CFF or charted, are displayed in pink on the "H11119_ShorelineUpdates" Mapinfo table. Charted shoreline, when used for reference purposes or when source data were not available, is depicted in the MapInfo table "H11119_Charted_Shoreline" and displayed in brown (chart 17325) and green (chart 17326). [20]

Source Shoreline Changes and New Features

The features found during this survey generally match those of the source shoreline. Several revisions and new features were found and are depicted on the final Detached Position and Bottom Sample plot. Charted rocks were often identified as high points or extents of new ledges and are annotated as such on the DP plot.

Features positioned with a DP that required further discussion are flagged as "Report" in Pydro. The Hydrographer's remarks, recommendations, survey methods and investigation summary were exported to a report for these features. The report, H11119_Shoreline_Report is included in the supplemental correspondence section of the Descriptive Report.

Charted (17324) foul and CFF foul between 57°04'56.35" N 135°35'04.77" W ; (464561.92 , 6326701.24) and 57°04'06.66" N 135°36'14.03" W ; (463382.32 , 6325174.82) was removed due to foul limits being on top of CFF ledge(*see Figure 9*).[21]

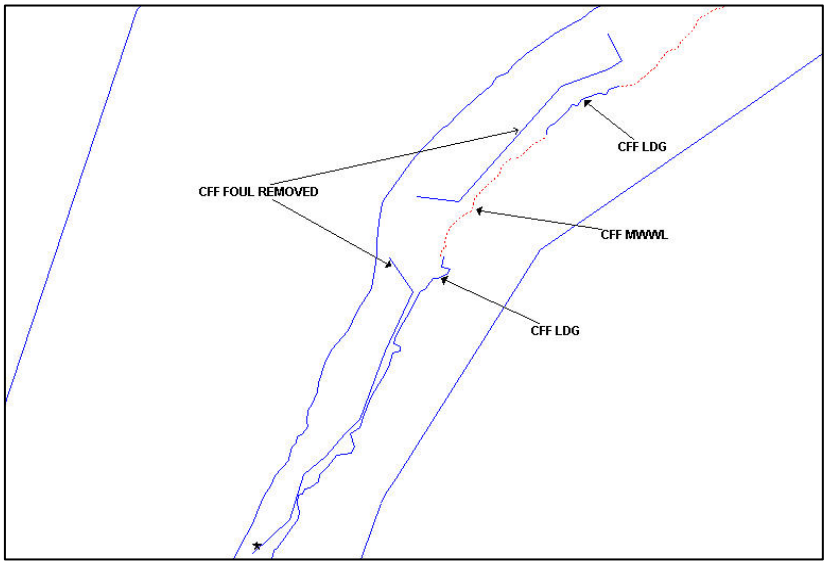


Figure 9. CFF foul removed

Charted Features

Charted items associated with a detached position that required additional discussion were flagged as “Report” in the Pydro session (H11119.pss). The investigation and survey methods used to verify or disprove an item are described in the "Remarks and Recommendation” tabs in Pydro. A report, H11119_Shoreline_Report with these items was generated and is included in Appendix/Supplemental Correspondence/H11119_Shoreline_Report.pdf. [22]

Recommendations

The Hydrographer recommends that the shoreline as depicted on the Detached Position and Bottom Sample supersede and complement shoreline information compiled on the CFF and charts as noted. In addition, field notes made by the Hydrographer, including verification of source features or charted features if no source shoreline was available are submitted in the digital MapInfo file “H11119_ShorelineNotes.” [23]

D.4 Dangers to Navigation

No Dangers to Navigation (DTONs) were found within the limits of H11119. [24]

D.5 Aids to Navigation

No Aids to Navigation (ATONs) are located within the limits of H11119.[25]

D.6 Miscellaneous

E. APPROVAL

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

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

Survey H11119 is complete and adequate to supersede charted soundings [26] in their common areas. No additional work is required for this survey. [27]

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-O112-RA-04	11/12/2004	N/CS34
Tides and Water Levels Package for OPR-O112-RA-04	2/9/2005	N/OPS1

Approved and Forwarded:

John W. Humphrey
Commander, NOAA
Commanding Officer

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

Survey Sheet Manager:

John J. Lomnicky
Ensign, NOAA

Field Operations Officer:

Kevin J. Slover
Lieutenant, NOAA

Revisions Compiled During Office processing and Certification

[1] Concur
[2] Filed with the project data.
[3] Concur
[4] Concur
[5] Concur
[6] Concur
[7] After office review this survey conforms to IHO order 1 specifications.
[8] Concur, see Review of Hydrographic Survey H11119, dated May 25, 2005, filed with the survey data.
[9] The junction with surveys H11118 and H11120 is complete. A "Joins" note has been added to the smooth sheet in the junction area. Survey H11119 also junctions with surveys H11130 (2004), H11271 (2005) and H11354 (2004). Survey H11130 has been processed and sent to N/CS35. The other two surveys, H11271 and H11354 are in office processing. The junctions between these three surveys is incomplete, therefore, an Adjoins note has been added to the smooth sheet in the appropriate areas.
[10] Results of the comparison after applications of approved tides are considered good.
[11] Approved tide note dated April 13, 2005 is attached.
[12] Filed with the hydrographic records.
[13] Concur
[14] Survey H11119 was compared with chart 17324 14th Edition, dated Jan 1, 2005
[15] Survey H11119 was compared with chart 17326 15th Edition, dated Jan. 1, 2006
[16] Concur
[17] Concur
[18] Filed with the hydrographic data.
[19] File with the hydrographic data.
[20] Shoreline verification conducted by the hydrographer and portrayed on the detached position plot has been analyzed during office processing and shown on the smooth sheet as warranted. A few minor revisions to the CFF shoreline have been shown in dashed red on the smooth sheet.
[21] Concur
[22] Attached to this report
[23] Filed with the hydrographic data
[24] Concur
[25] Concur
[26] and features
[27] Concur

H11119 Shoreline Report

Registry Number: H11119

State: Alaska

Locality: Approaches to Sitka

Sub-locality: Chaechei Islands to Inner Point

Project Number: OPR-O112-RA-04

Survey Dates: 5/27/04 - 6/10/04

Charts Affected

Number	Version	Date	Scale
17324	13th Ed.	03/25/1989	1:40000
17325	7th Ed.	10/13/1990	1:40000
17326	13th Ed.	08/05/2000	1:40000
17320	16th Ed.	12/01/2003	1:217828
16016	20th Ed.	11/01/2003	1:969756
531	22nd Ed.	03/01/2004	1:2100000
500	8th Ed.	06/01/2003	1:3500000
530	30th Ed.	03/23/2002	1:4860700
50	6th Ed.	06/01/2003	1:10000000

Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Sounding	0.59 m	57.07164971° N	135.59716686° W	---
1.2	Sounding	0.69 m	57.07048397° N	135.59897935° W	---
1.3	Rock	0.47 m	57.06469778° N	135.60071352° W	---
1.4	Rock	0.43 m	57.05377520° N	135.59994685° W	---
1.5	Rock	0.96 m	57.08575261° N	135.48153532° W	---
1.6	Rock	0.83 m	57.09257705° N	135.47948230° W	---
1.7	Rock	0.39 m	57.07557149° N	135.46014480° W	---
1.8	Stationary structure, floating or fixed	9997.88 m	57.09216733° N	135.44965137° W	---
1.9	Sounding	4.88 m	57.07492881° N	135.45699221° W	---

Generated by Pydro v5.9.3 on Tue Oct 24 22:12:11 2006 [UTC]

1.10	Rock	0.70 m	57.07647648° N	135.44811750° W	---
1.11	Rock	1.20 m	57.08936912° N	135.44540414° W	---
1.12	Rock	-0.72 m	57.08700252° N	135.44460246° W	---
1.13	Stationary structure, floating or fixed	9999.77 m	57.08781543° N	135.44323326° W	---
1.14	Rock	0.76 m	57.08816430° N	135.44663428° W	---
1.15	Rock	0.39 m	57.09003650° N	135.45097427° W	---
1.16	Rock	0.34 m	57.08791100° N	135.46003943° W	---
1.17	Sounding	-3.29 m	57.06250055° N	135.60170348° W	---
1.18	Sounding	-0.35 m	57.04017164° N	135.60682045° W	---
1.19	Sounding	-0.31 m	57.03923978° N	135.60771919° W	---
1.20	Sounding	-7.62 m	57.07480316° N	135.45910488° W	---
1.21	Rock	0.72 m	57.07851701° N	135.46144570° W	---
1.22	Sounding	-3.70 m	57.08067563° N	135.45898107° W	---
1.23	Sounding	-8.75 m	57.08097328° N	135.45652651° W	---
1.24	Sounding	-3.86 m	57.09166702° N	135.44364700° W	---

1 - New Features

1.1) Profile/Beam - 1/1 from H11119 / 1103_NonEchosounder_DP / 2004-156 / DP_1003_156

Survey Summary

Survey Position: 57.07164971° N, 135.59716686° W

Least Depth: 0.59 m

Timestamp: 2004-156.17:22:07.000 (06/04/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-156 / DP_1003_156

Profile/Beam: 1/1

Charts Affected: 17324_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

SOUTHERN EXT NEW REEF

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-156/DP_1003_156	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17325_1, 17320_1, 16016_1, 530_1)

0fm 2ft (17324_1, 531_1)

.6m (500_1, 50_1)

Office Notes

Due to scale chart as a single rock

1.2) Profile/Beam - 4/1 from H11119 / 1103_NonEchosounder_DP / 2004-156 / DP_1003_156

Survey Summary

Survey Position: 57.07048397° N, 135.59897935° W

Least Depth: 0.69 m

Timestamp: 2004-156.17:36:00.000 (06/04/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-156 / DP_1003_156

Profile/Beam: 4/1

Charts Affected: 17324_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

SOUTHERN EXT NEW REEF

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-156/DP_1003_156	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17325_1, 17320_1, 16016_1, 530_1)

0fm 2ft (17324_1, 531_1)

.7m (500_1, 50_1)

Office Notes

Due to scale chart as a single rock

1.3) Profile/Beam - 5/1 from H11119 / 1103_NonEchosounder_DP / 2004-156 / DP_1003_156

Survey Summary

Survey Position: 57.06469778° N, 135.60071352° W

Least Depth: 0.47 m

Timestamp: 2004-156.18:00:41.000 (06/04/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-156 / DP_1003_156

Profile/Beam: 5/1

Charts Affected: 17324_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-156/DP_1003_156	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17325_1, 17320_1, 16016_1, 530_1)

0fm 1ft (17324_1, 531_1)

.4m (500_1, 50_1)

Office Notes

Chart as new rock, cov 1 ft at MLLW

1.4) Profile/Beam - 6/1 from H11119 / 1103_NonEchosounder_DP / 2004-156 / DP_1003_156

Survey Summary

Survey Position: 57.05377520° N, 135.59994685° W

Least Depth: 0.43 m

Timestamp: 2004-156.18:22:58.000 (06/04/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-156 / DP_1003_156

Profile/Beam: 6/1

Charts Affected: 17324_1, 17325_1, 17326_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-156/DP_1003_156	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17325_1, 17326_1, 17320_1, 16016_1, 530_1)

0fm 1ft (17324_1, 531_1)

.4m (500_1, 50_1)

Office Notes

Chart new rock cov 1 ft a MLLW

1.5) Profile/Beam - 1/1 from H11119 / 1101_NonEchosounder_DP / 2004-156 / DP_1101_156

Survey Summary

Survey Position: 57.08575261° N, 135.48153532° W

Least Depth: 0.96 m

Timestamp: 2004-156.16:27:21.000 (06/04/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-156 / DP_1101_156

Profile/Beam: 1/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-156/DP_1101_156	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (17320_1, 16016_1, 530_1)

0fm 3ft (17324_1, 531_1)

.9m (500_1, 50_1)

Office Notes

Chart submerged rock as shown on the smooth sheet.

1.6) Profile/Beam - 2/1 from H11119 / 1101_NonEchosounder_DP / 2004-156 / DP_1101_156

Survey Summary

Survey Position: 57.09257705° N, 135.47948230° W

Least Depth: 0.83 m

Timestamp: 2004-156.16:50:44.000 (06/04/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-156 / DP_1101_156

Profile/Beam: 2/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-156/DP_1101_156	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (17320_1, 16016_1, 530_1)

0fm 2ft (17324_1, 531_1)

.8m (500_1, 50_1)

Office Notes

Chart new rock, cov 2 ft at MLLW

1.7) Profile/Beam - 3/1 from H11119 / 1101_NonEchosounder_DP / 2004-156 / DP_1101_156

Survey Summary

Survey Position: 57.07557149° N, 135.46014480° W

Least Depth: 0.39 m

Timestamp: 2004-156.17:58:34.000 (06/04/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-156 / DP_1101_156

Profile/Beam: 3/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-156/DP_1101_156	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1)

0fm 1ft (17324_1, 531_1)

.4m (500_1, 50_1)

Office Notes

Chart new rock, cov 1 ft at MLLW

1.8) Profile/Beam - 5/1 from H11119 / 1101_NonEchosounder_DP / 2004-156 / DP_1101_156

Survey Summary

Survey Position: 57.09216733° N, 135.44965137° W

Least Depth: 9997.88 m

Timestamp: 2004-156.21:06:09.000 (06/04/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-156 / DP_1101_156

Profile/Beam: 5/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

N EXT FLOATING DOCK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-156/DP_1101_156	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

5467fm (17320_1, 16016_1, 530_1)

5467fm (17324_1, 531_1)

9998m (500_1, 50_1)

Office Notes

Chart floating dock

1.9) Profile/Beam - 1/1 from H11119 / 1101_Singlebeam / 2004-156 / DP_1101_156

Survey Summary

Survey Position: 57.07492881° N, 135.45699221° W

Least Depth: 4.88 m

Timestamp: 2004-156.17:50:32.000 (06/04/2004)

DP Dataset: H11119 / 1101_Singlebeam / 2004-156 / DP_1101_156

Profile/Beam: 1/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CHD (17324) RK DISAPROVAL 30M SEARCH RADIUS 5MIN SEARCH 3M VISABILITY THICK KELP

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_Singlebeam/2004-156/DP_1101_156	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

2 ½fm (17320_1, 16016_1, 530_1)

2fm 4ft (17324_1, 531_1)

4.9m (500_1, 50_1)

Office Notes

Concur, remove charted rock and add kelp symbol and soundings from this survey.

1.10) Profile/Beam - 1/1 from H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Survey Summary

Survey Position: 57.07647648° N, 135.44811750° W

Least Depth: 0.70 m

Timestamp: 2004-157.16:30:02.000 (06/05/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Profile/Beam: 1/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-157/DP_1101_157	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1)

0fm 2ft (17324_1, 531_1)

.7m (500_1, 50_1)

Office Notes

Chart rock cov 2 ft at MLLW

1.11) Profile/Beam - 2/1 from H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Survey Summary

Survey Position: 57.08936912° N, 135.44540414° W

Least Depth: 1.20 m

Timestamp: 2004-157.17:27:17.000 (06/05/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Profile/Beam: 2/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-157/DP_1101_157	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ½fm (17320_1, 16016_1, 530_1)

0fm 4ft (17324_1, 531_1)

1.2m (500_1, 50_1)

Office Notes

Chart submerged rock as shown on the smooth sheet

1.12) Profile/Beam - 3/1 from H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Survey Summary

Survey Position: 57.08700252° N, 135.44460246° W

Least Depth: -0.72 m

Timestamp: 2004-157.17:42:28.000 (06/05/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Profile/Beam: 3/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK, EXT FOUL

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-157/DP_1101_157	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1)

0fm 2ft (17324_1, 531_1)

-.7m (500_1, 50_1)

Office Notes

Concur, chart rock as shown on the smooth sheet

1.13) Profile/Beam - 4/1 from H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Survey Summary

Survey Position: 57.08781543° N, 135.44323326° W

Least Depth: 9999.77 m

Timestamp: 2004-157.17:46:04.000 (06/05/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Profile/Beam: 4/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

PRIVATE FLOATING DOCK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-157/DP_1101_157	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

5468fm (17320_1, 16016_1, 530_1)

5468fm (17324_1, 531_1)

10000m (500_1, 50_1)

Office Notes

Chart floating dock

1.14) Profile/Beam - 5/1 from H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Survey Summary

Survey Position: 57.08816430° N, 135.44663428° W

Least Depth: 0.76 m

Timestamp: 2004-157.17:50:01.000 (06/05/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Profile/Beam: 5/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-157/DP_1101_157	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1)

0fm 2ft (17324_1, 531_1)

.7m (500_1, 50_1)

Office Notes

Chart rock cov 2 ft at MLLW

1.15) Profile/Beam - 6/1 from H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Survey Summary

Survey Position: 57.09003650° N, 135.45097427° W

Least Depth: 0.39 m

Timestamp: 2004-157.18:34:47.000 (06/05/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Profile/Beam: 6/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-157/DP_1101_157	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1)

0fm 1ft (17324_1, 531_1)

.4m (500_1, 50_1)

Office Notes

Chart rock cov 1 ft at MLLW

1.16) Profile/Beam - 7/1 from H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Survey Summary

Survey Position: 57.08791100° N, 135.46003943° W

Least Depth: 0.34 m

Timestamp: 2004-157.19:21:12.000 (06/05/2004)

DP Dataset: H11119 / 1101_NonEchosounder_DP / 2004-157 / DP_1101_157

Profile/Beam: 7/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NEW RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1101_NonEchosounder_DP/2004-157/DP_1101_157	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (17320_1, 16016_1, 530_1)

0fm 1ft (17324_1, 531_1)

.3m (500_1, 50_1)

Office Notes

Chart rock cov 1 ft at MLLW

1.17) Profile/Beam - 1/1 from H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Survey Summary

Survey Position: 57.06250055° N, 135.60170348° W

Least Depth: -3.29 m

Timestamp: 2004-159.16:53:25.000 (06/07/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Profile/Beam: 1/1

Charts Affected: 17324_1, 17325_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CHD (17324) ISLET HP CFF LDG

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-159/DP_1103_159	1/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-1 ¾fm (17325_1, 17320_1, 16016_1, 530_1)

-1fm 5ft (17324_1, 531_1)

-3.3m (500_1, 50_1)

Office Notes

Retain islet as charted

1.18) Profile/Beam - 2/1 from H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Survey Summary

Survey Position: 57.04017164° N, 135.60682045° W

Least Depth: -0.35 m

Timestamp: 2004-159.17:23:25.000 (06/07/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Profile/Beam: 2/1

Charts Affected: 17325_1, 17326_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

NE EXT NEW REEF

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-159/DP_1103_159	2/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17325_1, 17326_1, 17320_1, 16016_1, 530_1)

0fm 1ft (531_1)

-.4m (500_1, 50_1)

Office Notes

Chart reef as shown on smooth sheet

1.19) Profile/Beam - 3/1 from H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Survey Summary

Survey Position: 57.03923978° N, 135.60771919° W

Least Depth: -0.31 m

Timestamp: 2004-159.17:27:17.000 (06/07/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Profile/Beam: 3/1

Charts Affected: 17325_1, 17326_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

SW EXT NEW REEF

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-159/DP_1103_159	3/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0fm (17325_1, 17326_1, 17320_1, 16016_1, 530_1)

0fm 1ft (531_1)

-.3m (500_1, 50_1)

Office Notes

Chart reef as shown on smooth sheet

1.20) Profile/Beam - 4/1 from H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Survey Summary

Survey Position: 57.07480316° N, 135.45910488° W

Least Depth: -7.62 m

Timestamp: 2004-159.20:13:35.000 (06/07/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Profile/Beam: 4/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CHD (17324) ISLET VERIFIED

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-159/DP_1103_159	4/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-4fm (17320_1, 16016_1, 530_1)

-4fm 1ft (17324_1, 531_1)

-7.6m (500_1, 50_1)

Office Notes

Chart islet as shown on smooth sheet

1.21) Profile/Beam - 5/1 from H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Survey Summary

Survey Position: 57.07851701° N, 135.46144570° W

Least Depth: 0.72 m

Timestamp: 2004-159.20:23:08.000 (06/07/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Profile/Beam: 5/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CHD RK

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-159/DP_1103_159	5/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

0 ¼fm (17320_1, 16016_1, 530_1)

0fm 2ft (17324_1, 531_1)

.7m (500_1, 50_1)

Office Notes

Chart rock cov 2 ft at MLLW, remove charted rock awash

1.22) Profile/Beam - 6/1 from H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Survey Summary

Survey Position: 57.08067563° N, 135.45898107° W

Least Depth: -3.70 m

Timestamp: 2004-159.20:26:34.000 (06/07/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Profile/Beam: 6/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CHD (17324) ISLET DISAPROVAL

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-159/DP_1103_159	6/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2fm (17320_1, 16016_1, 530_1)

-2fm 0ft (17324_1, 531_1)

-3.7m (500_1, 50_1)

Office Notes

Remove charted islet and retain charted ledge

1.23) Profile/Beam - 7/1 from H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Survey Summary

Survey Position: 57.08097328° N, 135.45652651° W

Least Depth: -8.75 m

Timestamp: 2004-159.20:32:27.000 (06/07/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Profile/Beam: 7/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CHD (17324) ISLET VERIFIED

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-159/DP_1103_159	7/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-4 ¾fm (17320_1, 16016_1, 530_1)

-4fm 4ft (17324_1, 531_1)

-8.8m (500_1, 50_1)

Office Notes

Retain charted islet

1.24) Profile/Beam - 8/1 from H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Survey Summary

Survey Position: 57.09166702° N, 135.44364700° W

Least Depth: -3.86 m

Timestamp: 2004-159.20:44:21.000 (06/07/2004)

DP Dataset: H11119 / 1103_NonEchosounder_DP / 2004-159 / DP_1103_159

Profile/Beam: 8/1

Charts Affected: 17324_1, 17320_1, 16016_1, 531_1, 500_1, 530_1, 50_1

Remarks:

CHD (17324) ISLET VERIFIED

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11119/1103_NonEchosounder_DP/2004-159/DP_1103_159	8/1	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

-2fm (17320_1, 16016_1, 530_1)

-2fm 0ft (17324_1, 531_1)

-3.9m (500_1, 50_1)

Office Notes

Chart islet from CFF shoreline, see smooth sheet for depiction

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: April 13, 2005

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-O112-RA-2004
HYDROGRAPHIC SHEET: H11119

LOCALITY: Chaechei Islands to Inner Point
Approaches to Sitka, AK

TIME PERIOD: May 27 - June 10, 2004

TIDE STATION USED: 945-1600 Sitka, AK
Lat. 57° 03.1'N Lon.135° 20.5'W

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

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: SEA200

Refer to attachments for zoning information.

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

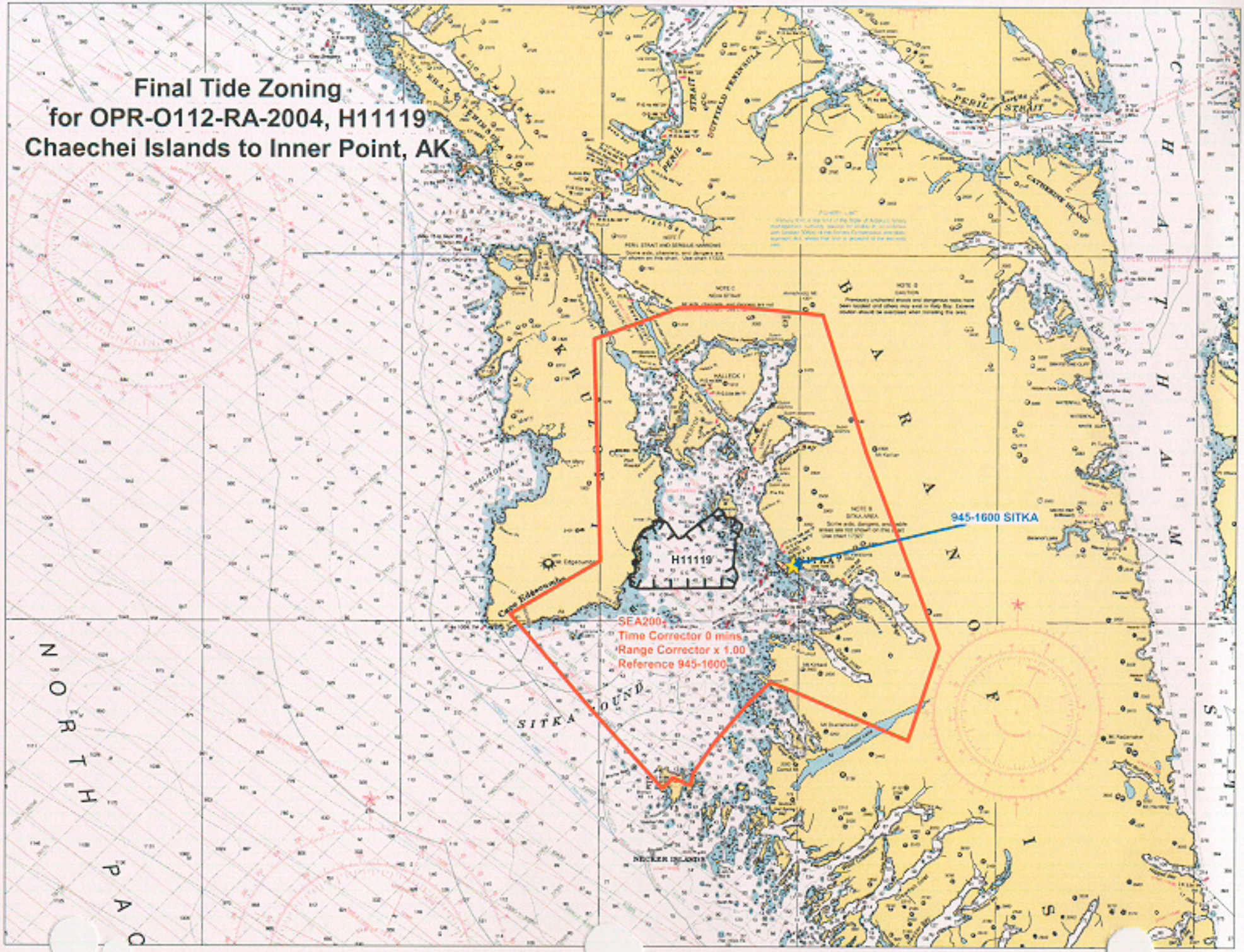
Thomas N. Moe 5/2/05

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION

Final tide zone node point locations for OPR-O112-RA-2004, H11119

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

	Tide Station Order	AVG Time Correction	Range Correction
Zone SEA200	945-1600	0	1.00
-135.560208 56.847672			
-135.542365 56.857201			
-135.513529 56.850654			
-135.50839 56.861868			
-135.472042 56.890618			
-135.413912 56.927046			
-135.37942 56.944575			
-135.345146 56.937479			
-135.148538 56.891767			
-135.096503 56.976245			
-135.219418 57.152377			
-135.294235 57.2785			
-135.435854 57.285735			
-135.536277 57.284567			
-135.677763 57.256337			
-135.665367 57.054404			
-135.816846 57.006056			
-135.678821 56.918667			
-135.578921 56.858887			
-135.560208 56.847672			


Final Tide Zoning
for OPR-O112-RA-2004, H11119
Chaechei Islands to Inner Point, AK
945-1600 SITKA
H11119
SEA200
Time Corrector 0 mins
Range Corrector x 1.00
Reference 945-1600
SITKA SOUND
NORTH PAC
PERIL STRAIT
BARANOF ISLAND

APPROVAL SHEET
H11119

Initial Approvals:

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

Bruce Olmstead Date: 10/30/2006
Bruce Olmstead
Cartographic Team
Pacific Hydrographic Branch

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

, CDR/NOAA Date: 24 Oct. 2006
Donald W. Haines
CDR, NOAA
Chief, Pacific Hydrographic Branch

Kyle R. Ward
Digitally signed by Kyle R. Ward
DN: cn=Kyle R. Ward, c=US, ou=HSD, email=Kyle.Ward@NOAA.GOV
Reason: AWOIS and Surf Check Completed
Date: 2006.10.30 11:02:55 -05'00'

NOAA FORM 75-96
(10-83)

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

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-11119

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
17324	8-11-06	Russ Davies	Full ~~Part~~ ~~Before~~ After Marine Center Approval Signed Via Full application of
			Drawing No. curves, soundings and features.
17326	8-22-06	Russ Davies	Full ~~Part~~ ~~Before~~ After Marine Center Approval Signed Via Full application of
			Drawing No. curves, soundings and features.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
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			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.