

H1110

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-10-06-02

Registry No. H-11110

LOCALITY

State Alaska

General Locality Sitka Sound to Peril Strait

Sublocality Fish Bay

2002

CHIEF OF PARTY

..... CAPT James C. Gardner, NOAA

LIBRARY & ARCHIVES

DATE

HYDROGRAPHIC TITLE SHEET

H11110

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-10-06-02

State Alaska

General Locality Sitka Sound to Peril Strait

Sublocality Fish Bay

Scale 1:10,000

Date of Survey 4/27/2002-5/25/2002

Instructions Date 3/21/2002

Project No. OPR-O112-RA-02

Vessel NOAA Ship launches 2121, 2122, 2123, 2124, 2125 and 2127

Chief of Party CAPT James C. Gardner, NOAA

Surveyed by RAINIER Personnel

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

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 H11110

Project OPR-O112-RA-02

Sitka Sound, Alaska

Scale 1:10,000

April-May 2002

NOAA Ship RAINIER

Chief of Party: Captain James C. Gardner, NOAA

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-O112-RA-02, dated March 21, 2002, and the Draft Standing Project Instructions dated March 21, 2001. The survey area is located north of Sitka in Peril Strait. This survey corresponds to sheet “F” 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 waters from 4 meters to 8 meters, SWMB data were obtained at 25-meter line spacing, and in these areas additional coverage was obtained to obtain least depths over features or shoals. Vertical-beam echo sounder (VBES) data were acquired in depths from 4 to 25 meters to define the four-meter curve and to aid in the planning of SWMB data acquisition.¹

Data acquisition was conducted from April 27 to May 25, 2002 (DN 117 to 145).

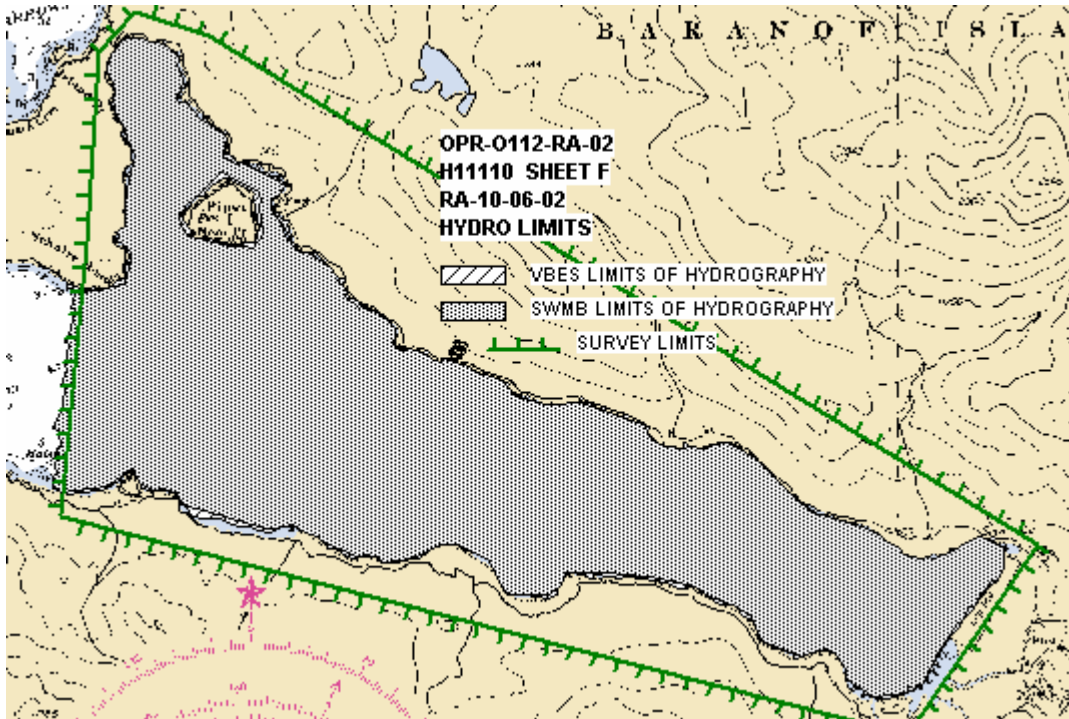


Figure 1. H11110 Survey Limits.

B. DATA ACQUISITION AND PROCESSING

A complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods can be found in the *OPR-O112-RA-02 Data Acquisition and Processing Report*,² submitted under separate cover. Items specific to this survey, and any deviations from the aforementioned report are discussed in the following sections.

B1. Equipment and Vessels

Data were acquired by RAINIER survey launches (vessel numbers 2121, 2122, 2123, 2124, 2125, and 2127). Vessels 2123, 2124 and 2125 were used to acquire shallow-water multibeam (SWMB) soundings and sound velocity profiles. Vessel 2122 was used to acquire vertical-beam echo soundings (VBES) and detached positions (DPs) along with vessel 2127 for shoreline verification. Vessel 2121 was used to collect bottom samples. No unusual vessel configurations or problems were encountered during this survey.³

No unusual vessel configurations were used for data acquisition.⁴

B2. Quality Control

Crosslines

Vertical Beam Echo Sounder (VBES) shoreline buffer was used in place of crosslines, which totaled 13.17 nautical miles, comprising over 100% of VBES mainscheme hydrography. Crosslines generally agreed within 1 meter of mainscheme hydrography.

In HDCS subset mode, SWMB crosslines generally matched within 0.5 meters of SWMB mainscheme hydrography.

Shallow-Water Multibeam (SWMB) crosslines totaled 6.3 nautical miles, comprising 5.23% of SWMB hydrography. The Quality Control Report (CARIS HIPS) for the checkline file averaged 98.08192% for the Reson 8125, and 98.59811% for the Reson 8101, with a depth tolerance factor of 0.013, which conforms to International Hydrographic Organization Order 2 specifications detailed in Special Publication S-44,⁵ Edition 4, as well as NOS Hydrographic Surveys Specifications and Deliverables Manual (HSSDM). See Appendix V for the detailed report.⁶

Junctions

The following contemporary survey junctions with H11110:

<u>Registry #</u>	<u>Scale</u>	<u>Date</u>	<u>Junction side</u>
H11109	1:10,000	2002	West

At the time of this report, data processing for survey H11109 was not completed. Comparisons of the junction with this survey will be discussed in the Descriptive Report for H11109.⁷

Final comparisons will be made at the Pacific Hydrographic Branch (PHB) after the application of smooth tides.⁸

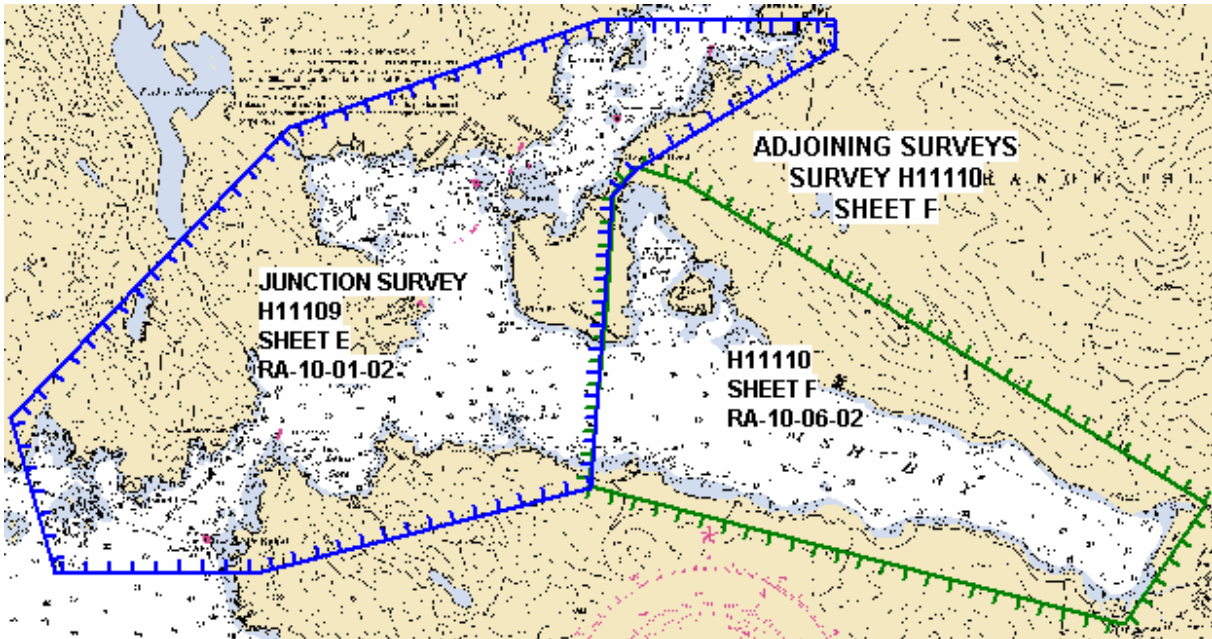


Figure 2. H11110 Junction Surveys.

Data Quality Factors

Due to river runoff, a sharp demarcation of water masses was often observed most notably in the Eastern end of Fish Bay. This proved to be problematic in the acquisition and application of sound velocity correctors. After correction for sound velocity in HDCS, some lines still exhibited the characteristic "smiles" and "frowns" indicative of inaccurate sound velocity corrections. To correct these sound velocity problems, correctors were often applied based on the geographic position of the cast, rather than the time the cast was collected. Such application was performed on a line-by-line basis only on individual lines that exhibited profound sound velocity problems. 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 through methods previously mentioned, sound velocity errors were still noticeable in this region. To compensate, the Hydrographer, where possible, rejected soundings obviously in error on the outer beams. The Hydrographer recommends retaining all soundings as they appear on the Final Field Sheet.⁹

The majority of the VBES data matches well with the SWMB data, however during HDCS subset mode processing, the Hydrographer noticed a small percentage single beam lines when compared to SWMB lines, showed differences where the single beam data was up to 0.5

meters below the SWMB lines.¹⁰ These differences were observed mostly in areas of steep slope. There was good agreement between SWMB lines.¹¹

On 5/11/02 (DN 131), RI Theta was used while acquiring the day’s data. As a consequence, quality flag zero could not be filtered out during the cleaning process and the Hydrographer manually cleaned these data.

B3. Data Reduction

Data reduction procedures for survey H11110 conform to those detailed in the *OPR-O112-RA-02 Data Acquisition and Processing Report*.¹²

C. VERTICAL AND HORIZONTAL CONTROL

A complete description of vertical and horizontal control for survey H11110 can be found in the *OPR-O112-RA-02 Horizontal and Vertical Control Report*,¹³ submitted under separate cover. A summary of horizontal and vertical control for this survey follows.

Horizontal Control

The horizontal datum for this project is the North American Datum of 1983 (NAD83). Differential GPS (DGPS) was the sole method of positioning. Differential corrections from U.S. Coast Guard beacon at Biorka Island (305 kHz) were utilized during this survey. Launch-to-launch DGPS performance checks using U.S. Coast Guard beacon Level Island (295 kHz) as the check station were performed weekly in accordance with Section 3.2 of the FPM. Copies of the performance checks are included in the *OPR-O112-RA-02 Horizontal and Vertical Control Report*.

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 H11110.

RAINIER personnel installed Sutron 8210 “bubbler” tide gauges at the following subordinate stations to provide information for N/OPS1 to determine time and height correctors in accordance with the Project Instructions:

Station Name	Station Number	Type of Gauge	Date of Installation	Date of Removal
Povorotni Island	945-1936	30-day	March 31, 2002	May 22, 2002
Sergius Narrows	945-1853	30-day	April 1, 2002	May 26, 2002
Scraggy Island	945-1805	30-day	April 2, 2002	May 25, 2002

The station at Scraggy Island (945-1805) was occupied in lieu of Scraggy Point (945-1802) as specified by the Letter Instructions following consultation with N/OPS1.

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 0112RA2002CORP.zdf.

The Pacific Hydrographic Branch will apply final approved (smooth) tides to the survey data during final processing.¹⁴ A request for delivery of final approved (smooth) tides for survey H11110 was forwarded to N/OPS1 on May 31, 2002 in accordance with FPM 4.8. A copy of the request is included in Appendix IV.¹⁵

D. RESULTS AND RECOMMENDATIONS

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

A total of two (2) AWOIS items were located within the limits of H11110 and investigated during this survey. Investigation methods, results, and charting recommendations have been entered into the Microsoft Access AWOIS database and are submitted with the digital data; digital photographs taken at some of the AWOIS locations are also included. Printouts of the AWOIS Database forms are included in this report.¹⁶

D.2 Chart Comparison

Survey H11110 was compared with chart 17323 (10th Ed.; July 10, 1993, 1:40,000).¹⁷

Chart 17323

Depths from survey H11110 were generally one to two fathoms shoaler than depths on chart 17323. In many instances, this survey found shoaler soundings between charted soundings even though agreement at the position of the charted depths was good. This can be attributed to increased bottom coverage using SWMB methods.¹⁸

In Schulze Cove, four obstructions were found; possible sunken logs from when the area was used for log storage. A 1.6-fathom sounding at 57°24'11.846"N, 135°36'20.432"W (463,606 E, 6,362,442 N) and a 3.3-fathom sounding at 57°24'07.662"N, 135°36'20.321"W (463.606 E, 6,362,313 N) was found.¹⁹ A 1.9-fathom sounding at 57°23'59.489"N, 135°36'24.099"W (463,541 E, 6,362,060 N) was found.²⁰ A 3-fathom sounding at 57°24'01.013"N, 135°36'08.637"W (463,800 E, 6,362,105 N) was found with surrounding depths of nine to ten fathoms and was submitted as a Danger to Navigation.²¹ The obstructions are encircled with a black dotted line and are displayed on the Final Field Sheet.²²

The Hydrographer has determined that data accuracy standards and bottom coverage requirements have been met and survey data are adequate to supersede charted data in their common areas.²³

Final chart comparisons will be made at the Pacific Hydrographic Branch after the application of smooth tides.²⁴

D.3 Shoreline

Shoreline Source

A complete source shoreline for this survey was not provided. A preliminary partial digital manuscript (DM) from photogrammetric projects AK9703A (north) and A9703B (south) was supplied by N/NGS3 in the form of a cartographic feature file (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 edition of chart 17323 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 near predicted low water in accordance with the 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*.²⁵

A detailed Detached Position and Bottom Sample plot,²⁶ in both paper copy and 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 H11110_Shoreline and shown in black. New MHW features and changes to the MHW shoreline, CFF or charted, are displayed in red on the "H11110_ShorelineUpdates" Mapinfo table. Charted shoreline, when used for reference purposes or when source data were not available, is depicted in the MapInfo table "H11110_ChartedShoreline" and displayed in brown.²⁷

The features found during this survey generally matched those of the source and charted shoreline. The CFF shoreline was found to be very accurate in its depiction of low water features, requiring little revision. In some instances, the CFF MLLW line was found to be correctly positioned shoreward of the charted high water line. In these instances, the high water line is depicted with Detached Positions and is displayed on the DP and BS Plot. The Hydrographer recommends charting the high water line from the complete CFF dataset when available.²⁸

Source Shoreline Changes and New Features

A portion of the CFF MLLW line in Schulze Cove was found to be the actual extent of the MHW line. A detached position was taken at 57°23'53.3" N, 135°36'26.31" (Pos. # 71189; 463,535 E, 6,361,822 N). The Hydrographer recommends charting the MHW line as depicted on the DP and BS Plot.²⁹

Charted Features

The charted (17323) ledge at 57°23'46.01"N, 135°36'18.64"W (Position # 211782; 463,629 E, 6,361,643 N) was disproved by conducting a five-minute visual search within a search radius of twenty meters. Sea conditions were flat. Water visibility in this area was clear to the bottom to a depth of three meters. There is a VBES shoreline buffer (Line # 001_1526, VN 2122, DN 117) and 100% SWMB coverage (Line # 287_0021, VN 2124, DN 131) over the ledge deep enough for safe vessel navigation. See Figure 3 below. The Hydrographer recommends removing this ledge from the chart.³⁰

The charted (17323) ledge at 57°23'48.31"N, 135°36'21.93"W (Position # 211783; 463,578 E, 6,361,711 N) was disproved by conducting a five-minute visual search within a search radius of twenty meters. Sea conditions were flat. Water visibility in this area was clear to the bottom to a depth of three meters. There is VBES shoreline buffer (Line # 001_1526, VN 2122, DN 117) and 100 meter VBES line spacing (Line # 185_2321, VN 2122, DN 117) over the ledge. See Figure 3 below. The Hydrographer recommends removing this ledge from the chart.³¹

The charted (17323) ledge at 57°23'51.34"N, 135°36'22.4"W (Position # 211785; 463,567 E, 6,361,808 N) was disproved by conducting a five-minute visual search within a search radius of twenty meters. Sea conditions were flat. Water visibility in this area was clear to the bottom to a depth of three meters. There is a VBES shoreline buffer (Line # 001_1526, VN 2122, DN 117) and 100 meter VBES line spacing over the ledge (184_2320, VN 2122, DN 117). There is 100% SWMB coverage (Line # 286_2147, VN 2124, DN 131) over the ledge deep enough for safe vessel navigation. See Figure 3 below. The Hydrographer recommends removing this ledge from the chart.³²

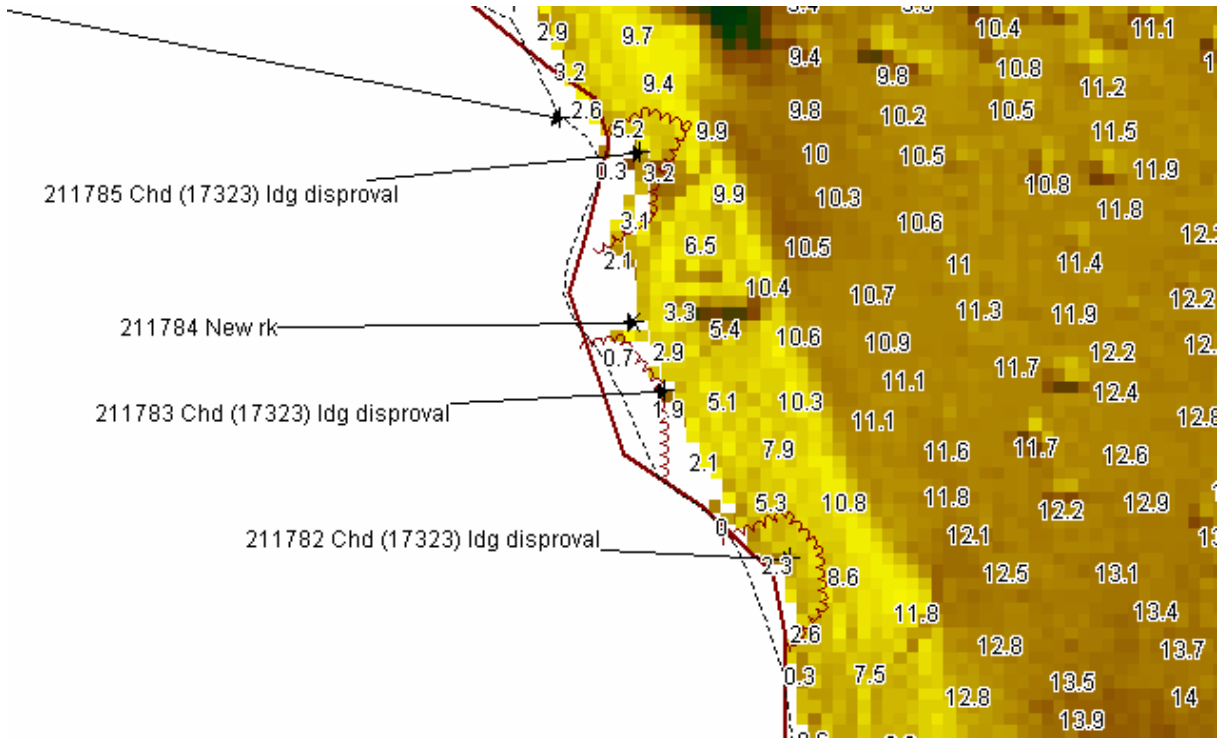


Figure 3. Pos. # 21782 – 211785, Ledge Disprovals.

The charted (17323) ledge at 57°23'24.78"N, 135°35'15.32"W (Position # 2117166; 464,680 E, 6,360,977 N) was disproved by conducting a five-minute visual search within a radius of twenty meters. Sea conditions were flat. Water visibility in this area was clear to the bottom to a depth of three and a half meters. 100 meter VBES line spacing (VN 2122, DN 117) was also conducted over the area. The CFF MLLW line portrays this area around Piper Island accurately. The Hydrographer recommends removing this ledge from the chart.³³

The charted (17323) ledge at 57°22'17.81"N, 135°36'16.51"W (Position # 2117499; 463,640 E, 6,358,915 N) was disproved by conducting a five-minute visual search within a radius of twenty meters. Sea conditions were flat. Water visibility in this area was clear to the bottom from a depth of three and a half meters. 100 meter VBES line spacing (VN 2122, DN 117) was also conducted over the area. The CFF MLLW line portrays this area around Haley Point accurately. The Hydrographer recommends removing this ledge from the chart.³⁴

In Schulze Cove, a charted (17323) log storage area at 57°23'44.64"N, 135°35'58.98" (463,956 E, 6,361,597 N) was not observed. Schulze Cove was covered with 100% Shallow Water Multibeam. The Department of Natural Resources was contacted in regards to this log storage area and responded “. . . that there currently are no legally authorized Log Storage operations at . . . Schulze Cove” (See V. Supplemental Correspondence). The Hydrographer recommends removing this log storage area from the chart.³⁵

Recommendations

The Hydrographer recommends that the shoreline as depicted on the Detached Position and Bottom Sample plot and final sounding plot 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 "H11110_ShorelineNotes."³⁶

D.4 Dangers to Navigation

One danger to navigation was found and reported to the Mapping and Charting Division for verification and final submission to the Seventeenth Coast Guard District on September 27, 2002. A copy of the preliminary Danger to Navigation Report is included in this report. A copy of the final report will be inserted by PHB following verification and submission to the U.S Coast Guard.³⁷

D.5 Aids to Navigation

No aids to navigation (ATONs) are located within the limits of H11110.³⁸

D.6 Miscellaneous³⁹

Bottom samples were collected and are depicted on the Detached Position and Bottom Sample Plot.⁴⁰

During shoreline verification, eelgrass beds were observed. They are displayed on the DPBS Plot in the "H11110_ShorelineNotes" layer.⁴¹

E. APPROVAL

As Chief of Party, I have ensured that standard field surveying and processing procedures were followed in producing this examination in accordance with the Hydrographic Manual, Fourth Edition, Hydrographic Survey Guidelines, Field Procedures Manual and the NOS Hydrographic Surveys Specifications and Deliverables, as updated for 2002.

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 H11110 is complete and adequate to supersede charted soundings⁴² in their common areas. No additional work is required for this survey.⁴³

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

<u>Title</u>	<u>Date Sent</u>	<u>Office</u>
Data Acquisition and Processing Report for OPR-O112-RA-02	6/17/02	N/CS34
Horizontal and Vertical Control Report for OPR-O112-RA-02	TBD	N/CS34
Tides and Water Levels Package for OPR-O112-RA-02	5/15/02	N/OPS1
Coast Pilot Report for OPR-O112-RA-02	TBD ⁴⁴	N/CS26

Approved and Forwarded: James C. Gardner 12-19-02
 James C. Gardner
 Captain, NOAA
 Commanding Officer

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

Survey Sheet Manager: Elaine S. Stuart
 Elaine S. Stuart
 Survey Technician, NOAA

Field Operations Officer: Richard A. Fletcher
 Richard A. Fletcher
 Lieutenant Commander, NOAA

Revisions Compiled During Office processing and Certification.

¹ Concur

² Filed with the project records/

³ Concur

⁴ Concur

⁵ Do not concur, after office review this survey conforms to IHO order 1 specifications.

⁶ Filed with the hydrographic records.

⁷ Concur, the junction with survey H11110 and H11109 is complete. A "Joins" note has been added to the smooth sheets where applicable.

⁸ Results of the comparison after applications of approved tides are considered good.

⁹ Concur, sounding data was analyzed during office processing and found to be consistent with the surrounding data.

¹⁰ After a review of the smooth sheet in areas of overlap between SWMB and VBES sounding systems, no significant differences were noticed. It is recommended that the smooth sheet be used for charting in the common area.

¹¹ Concur

¹² Concur

¹³ Filed with the project records.

¹⁴ Approved tide note dated December 18, 2003 is attached.

¹⁵ Filed with the hydrographic records.

¹⁶ Concur

¹⁷ Survey H11110 was compared with chart 17323, 11th Edition, dated October 1, 2004, during office processing.

¹⁸ Concur

¹⁹ Submitted as dangers to navigation

²⁰ Submitted as a danger to navigation.

²¹ This feature was never charted, it will be resubmitted along with the other five soundings and obstructions.

See Danger to Navigation letter attached to this report.

²² A total of six dangers to navigation have been reported, see attached DTON letter.

²³ Concur with clarification, several features were brought forward from prior survey H07861 (1950) in violet on the smooth sheet. These features are listed below;

Ledge latitude 57/23/29.3N, longitude 135/35/7.7W

Rock lat. 57/23/4.7N, long. 135/34/29.3W

Rock lat. 57/23/44.2N, long. 135/35/31.6W

Rock lat. 57/23/42.5N, long. 135/35/29.4W

Rock lat. 57/22/11.3N, long. 135/36/27.5W

Rock lat. 57/22/11.5N, long. 135/36/25.1W

²⁴ With the application of smooth tides, no changes to the comparison were noticed. This survey is adequate to supersede all charted soundings within the common area, except where noted in this report.

²⁵ Filed with the hydrographic records.

²⁶ Filed with the hydrographic records.

²⁷ 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.

²⁸ The MHWL on the final version of AK9703A was applied to the smooth sheet except in areas that were positioned by the hydrographer. In these areas, the shoreline is drawn in dashed red. It is recommended that MCD use the latest shoreline information for the MHWL for chart 17323.

²⁹ See smooth sheet for the depiction of the area.

³⁰ Concur

³¹ Concur

³² Concur

³³ Concur

³⁴ Concur

-
- ³⁵ Concur, several submerged obstructions were found within Schulze Cove and were reported as dangers to navigation. It is recommended that a note be added to the chart: Beware, dangerous submerged obstructions located within Schulze Cove.
- ³⁶ 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.
- ³⁷ The reported danger to navigation was never applied to chart 17323. Five additional dangers were found during office processing. All six have been forwarded to the U.S. Coast Guard. See attached copy.
- ³⁸ Concur
- ³⁹ An anchorage symbol charted at lat. 57/22/19N, long. 135/36/51.4W should be retained as charted.
- ⁴⁰ Bottom characteristics have been shown on the smooth sheet as positioned by the present survey.
- ⁴¹ See smooth sheet for depiction of the area.
- ⁴² And miscellaneous source data
- ⁴³ Concur
- ⁴⁴ Dated 10/10/03

RECRD VESSLTERMS CHART AREA
 CARTOCODE SNDINGCODE DEPTH

LAT83 LONG83 NATIVDATUM
 LATDEC: LONDEC: GPQUALITY
 GPSOURCE

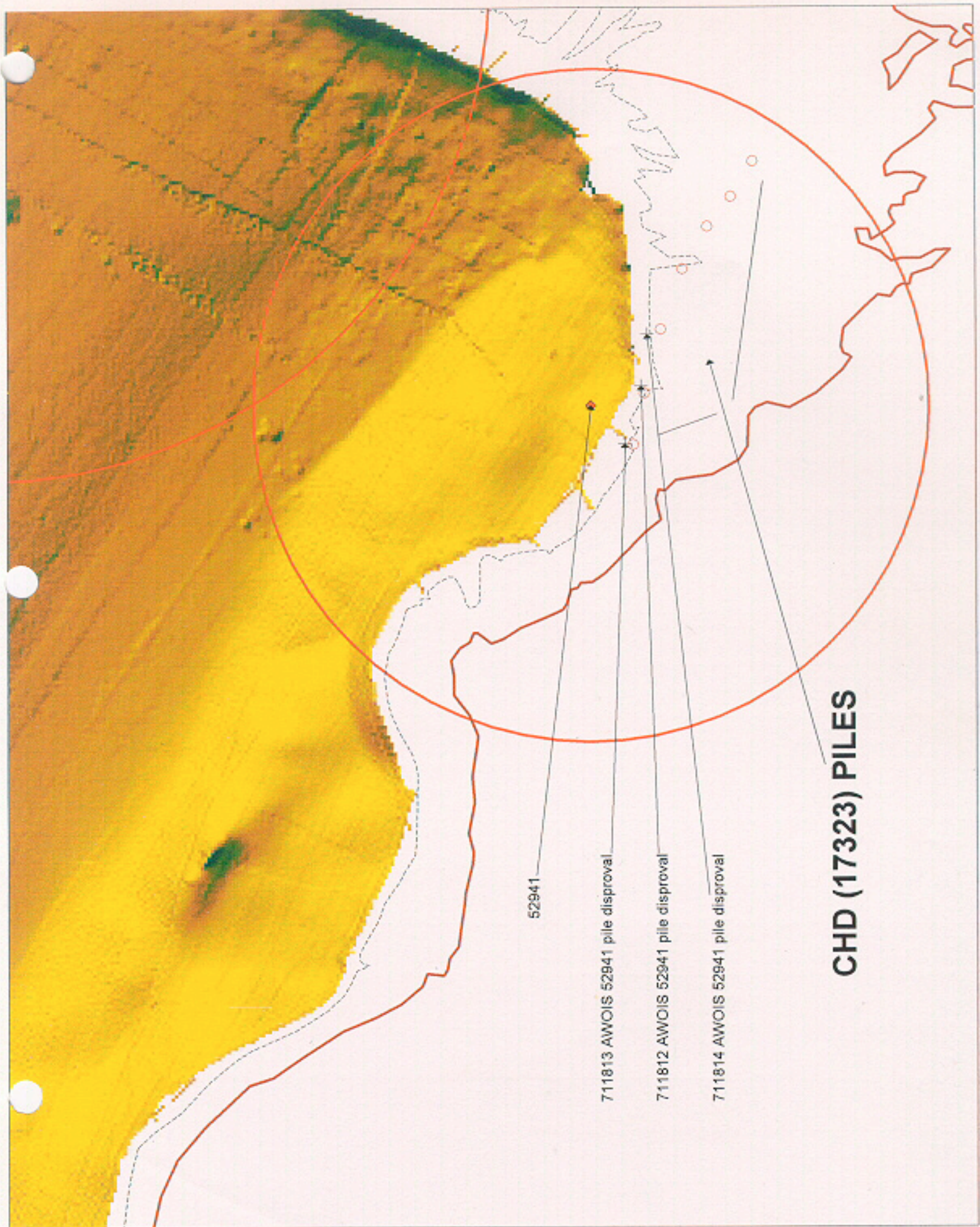
PROJECT ITEMSTATUS SEARCHTYPE
 RADIUS INIT ASSIGNED
 TECNIQ
 Techniqnote

History

Fieldnote

Proprietary

YEARSUNK NIMANUM



52941

711813 AWOIS 52941 pile disproval

711812 AWOIS 52941 pile disproval

711814 AWOIS 52941 pile disproval

CHD (17323) PILES

RECRD VESSLTERMS CHART AREA
CARTOCODE SENDINGCODE DEPTH

LAT83 LONG83 NATIVDATUM
LATDEC: LONDEC: GPQUALITY
GPSOURCE

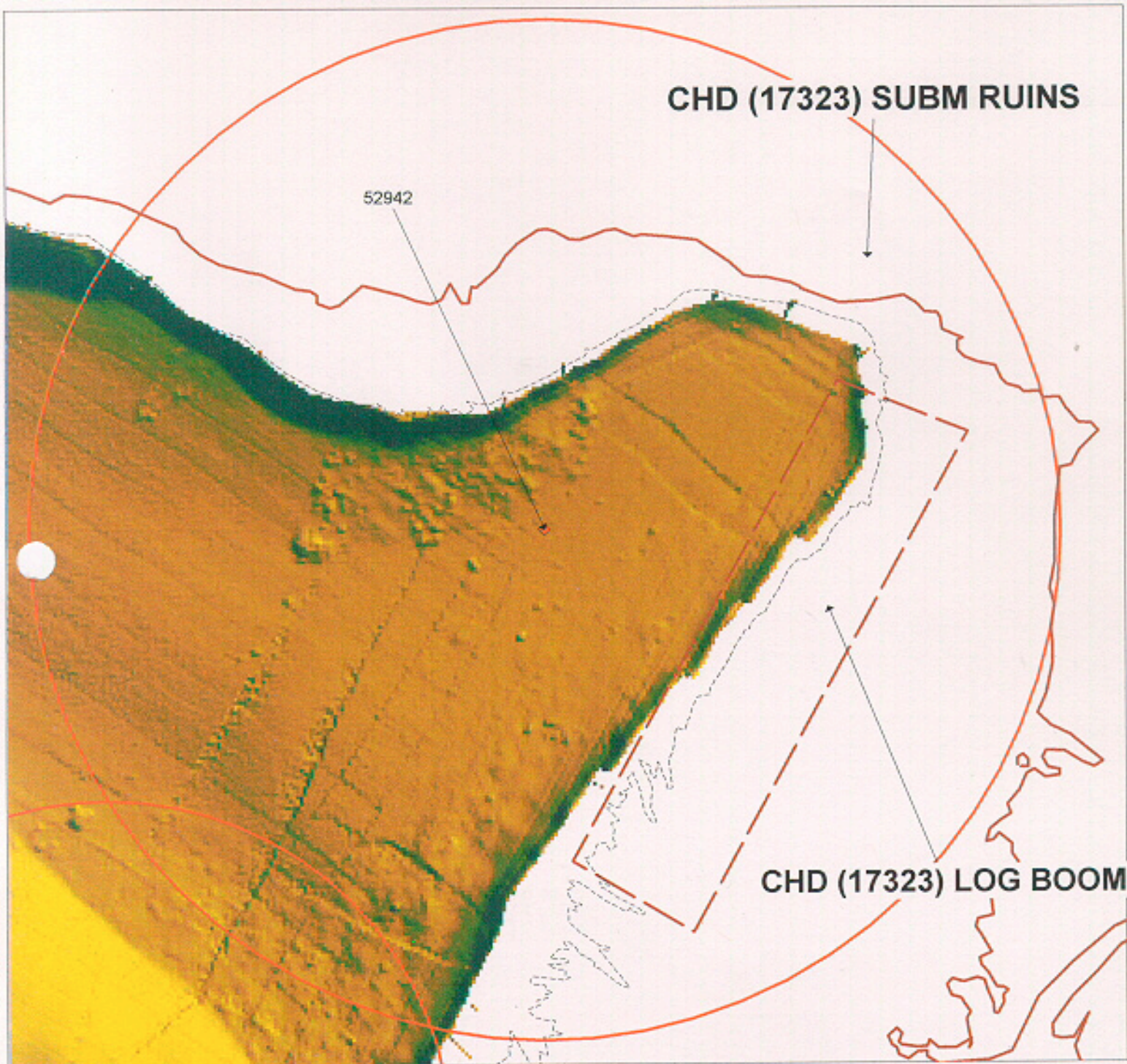
PROJECT ITEMSTATUS SEARCHTYPE
RADIUS INIT ASSIGNED
TECNIQ
Techniqnote

History
History
PH49/49 - T-9902-- T-sheet piles charted in western Fish Bay.
CL 818/70-- Proposed log storage area in Fish Bay on Baranof Island extends from delta on north shore to middle of upper bay. Application submitted by US Forest Service 11 September 1969.
Position for center of search radius scaled in MapInfo from raster chart 17323 10th ed., July 10, 1993. (ENT DAS 02/15/2002)

Fieldnote
INVESTIGATION
DATE(S): 4/27/02 - 5/23/02 (DN: 117, 135, 143)
HYDROGRAPHIC SURVEY NUMBER: H11110
VN: 2122, 2124, 2125
INVESTIGATION METHODS USED: (IE DI, 200% SIDE SCAN SONAR, ECHO SOUNDER) A visual search was conducted during shoreline verification. One hundred meter VBES line spacing was conducted in the area and 100% SWMB coverage was obtained where possible.
POSITION DETERMINED BY: DIFFERENTIAL GPS
INVESTIGATION SUMMARY: A 10 minute visual search was conducted at low water. One hundred percent SWMB coverage was obtained over the northwestern corner and along the western side of the charted (17323) log storage, and throughout the assigned search radius deep enough for safe vessel navigation. The Department of Natural Resources of the State of Alaska was contacted in order to find the status of this log storage area. They responded in a letter saying, ". . .that there currently are no legally authorized Log Storage operations at . . . Fish Bay." See attached letter in hard copy form. No sign was seen of the charted (17323) ruins with one hundred percent SWMB.
CHARTING RECOMMENDATION (HYDROGRAPHER): The Hydrographer recommends removal of the charted (17323) log storage area.
EVALUATOR COMMENTS:Concur

Proprietary

YEARSUNK NIMANUM



Subject: [Fwd: DTON RA-04-03 (H11110)]

Date: Mon, 21 Apr 2003 08:08:17 -0700

From: "John Lowell" <John.Lowell@noaa.gov>

Organization: Chief, Pacific Hydrographic Branch

To: PHB Surveys <phb.surveys@noaa.gov>

CC: Bruce Olmstead <Bruce.Olmstead@noaa.gov>,
"Edward.J.Vandenameele" <Edward.J.Vandenameele@noaa.gov>

FYI, johnl - I have also forwarded a copy to phb.survey mail directory.

----- Original Message -----

Subject: DTON RA-04-03 (H11110)

Date: Sat, 19 Apr 2003 15:50:19 +0000

From: "FOO Rainier" <foo.rainier@ranems.pmc.noaa.gov>

To: DTON <mcd.dton@noaa.gov>


CC: "Rainier CO" <co.rainier@ranems.pmc.noaa.gov>, "Lowell John"
<John.Lowell@noaa.gov>, "Swallow Jon" <Jon.Swallow@noaa.gov>

Attached is the DTON for survey H11110.

--
LCDR Rick Fletcher, NOAA
Field Operations Officer, RAINIER
1801 Fairview Ave. E.
Seattle, WA 98102

tel; (206)553-4794
cell; (206)660-8747
fax; (206)553-5306

<http://www.moc.noaa.gov/ra>

 H11110_DTON.ZIP	Name: H11110_DTON.ZIP Type: Zip Compressed Data (application/x-zip-compressed) Encoding: base64
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Hydrographic Survey Registry Number: H111110

Survey Title: State: Alaska
Locality: Peril Strait
Sub-locality: Upper Fish Bay

Project Number: OPR-O112-RA-02

Survey Dates: April 27 to May 5, 2002

Depths are reduced to Mean Lower Low Water using observed tides.
Positions are based on the NAD83 horizontal datum.

CHARTS AFFECTED:

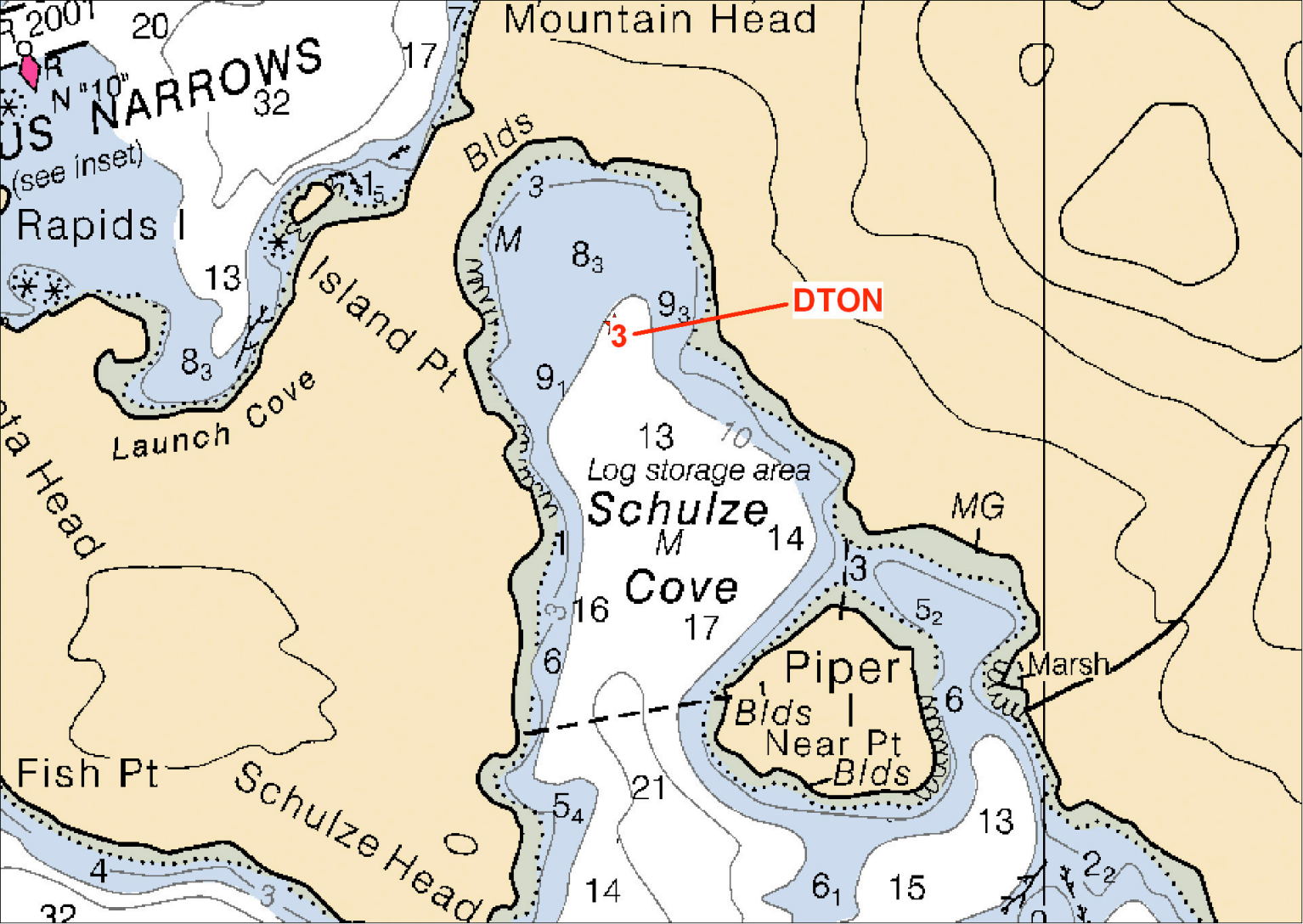
<u>Chart</u>	<u>Scale</u>	<u>Edition</u>	<u>Date</u>
17323	1:40,000	10 th	July 10, 1993

DANGERS TO NAVIGATION:

<u>Feature</u>	<u>Depth(fms)</u>	<u>Latitude</u>	<u>Longitude</u>
Obstruction	3	57/24/01	135/36/08

COMMENTS: The 3-fathom sounding is a probable snag or log.

Questions concerning this report should be directed to the Commanding Officer, NOAA Ship RAINIER, at (206) 553-4794 (inport November through mid-March), (877) 665-6533 (at sea, mid-March through November), or by e-mail at co.rainier@noaa.gov.



REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H11110

Survey Title: State: Alaska
Locality: Sitka Sound to Peril Strait
Sub-locality: Fish Bay

Project Number: OPR-O112-RA-02

Survey Dates: April 27 - May 25, 2002

Depths are reduced to Mean Lower Low Water using smooth tides.
Positions are based on the NAD83 horizontal datum.

CHARTS AFFECTED:

<u>Chart</u>	<u>Scale</u>	<u>Edition</u>	<u>Date</u>
17323	1:40,000	11 th	Oct 1, 2004

DANGERS TO NAVIGATION:

<u>Feature</u>	<u>Depth(fms)</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
Obstruction	1 3ft	57/24/11.8	135/36/20.4
Obstruction	1 5ft	57/23/59.5	135/36/24.1
Sounding	1 3ft	57/23/40.1	135/35/29.2
Obstruction	3 5ft	57/24/07.6	135/36/20.3
Sounding	8	57/22/07.0	135/33/53.7
Obstruction	3	57/24/01.0	135/36/8.6 (Resubmission)

COMMENTS: Shoal soundings and obstructions, possibly submerged logs

Questions concerning this report should be directed to the Chief, Pacific Hydrographic Branch at (206) 526-6836



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: December 18, 2003

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-0112-RA-2002
HYDROGRAPHIC SHEET: H11110-revised

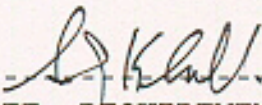
LOCALITY: Fish Bay, Alaska
TIME PERIOD: April 27 - May 25, 2002

TIDE STATION USED: 945-1600 Sitka, AK
Lat. 57° 3.1'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: SEA203

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).

For -----
CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION

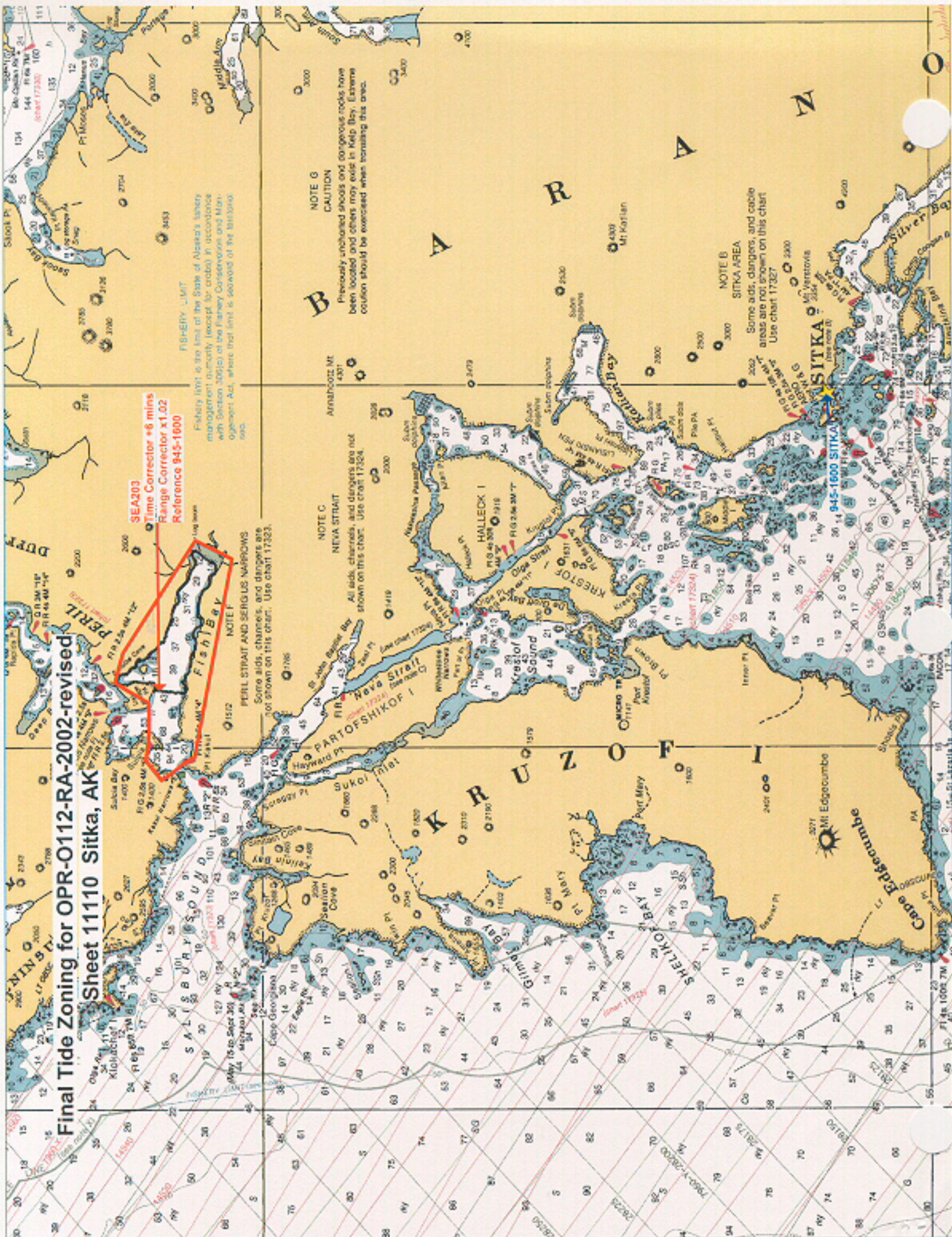
Final tide zone node point locations for OPR-O112-RA-2002, H11110

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 SEA203	945-1600	6	1.02
-135.606239 57.405593			
-135.624952 57.388795			
-135.639399 57.388504			
-135.65282 57.388634			
-135.655256 57.388781			
-135.678009 57.390156			
-135.695792 57.382579			
-135.688863 57.376974			
-135.679191 57.370765			
-135.674561 57.366193			
-135.492421 57.347471			
-135.475501 57.36559			
-135.578942 57.401543			
-135.606239 57.405593			

**Final Tide Zoning for OPR-0112-RA-2002-revised
Sheet 11110 Sitka, AK**

SEA2003
Time Corrector +6 mins
Range Corrector +1.02
Reference 945-1000





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

24 May 2002

Mr. Chris Landis
Alaska Department of Natural Resources
400 Willoughby, Suite 400
Juneau, Alaska 99801

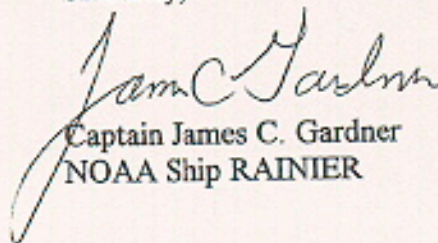
Mr. Landis,

Per your conversation with Lieutenant (Junior Grade) Jennifer Dowling of 24 May 2002, I am sending you a chart of Peril Strait that has charted log storage areas. The areas in question are circled in red.

Please review these areas for validity. If the log storage areas are no longer in place, please provide a letter to that effect that we may be able to remove those features from our nautical charts.

Please send your reply to my attention at the above address. If you have further questions, please contact me at 877 665-6533.

Sincerely,


Captain James C. Gardner
NOAA Ship RAINIER



STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF MINING, LAND AND WATER

TONY KNOWLES, GOVERNOR

*400 Willoughby Avenue, SUITE 400
JUNEAU, ALASKA 99801
PHONE: (907) 465-3400
FAX: (907) 586-2954*

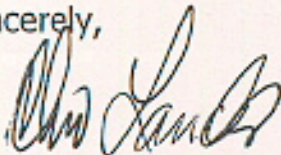
July 1, 2002

Captain James C. Gardner, NOAA Ship RAINIER
Marine Operations Center
1801 Fairview Avenue East
Seattle, Washington 98102-3767

Captain Gardner,

This is in response to your letter of May 24, 2002 (copy attached). Under the Tide and Submerged lands act and the entry of Alaska into the Union, the ownership and management of all tide and submerged lands is with the State, and more particularly with this department. As you requested I have researched the records of this agency and can advise that there currently are no legally authorized Log Storage operations at the four locations that your staff inquired about (Ushk Bay, Poison Cove, Schulz Cove, and Fish Bay). State tide and submerged lands begin at the Mean High Water and some of the sites on the chart you sent, appeared possibly higher. Past practice often used shallow areas and heads of bays to store log rafts, letting the logs go dry for periods to avoid worm damage. Current day practice by EPA and The State of Alaska in siting and authorizing log storage areas under the clean water act and Coastal Zone Standards requires that they be located in a minimum of 40 feet of water, thus eliminating the past practice of beaching log rafts. Also, FYI, Schulze cove has been heavily impacted by a thick layer of bark sedimentation from years of heavy storage use of the site and as result has been placed on the State's impaired water body list.

Sincerely,



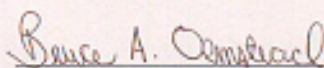
Christopher Landis
Natural Resource Manager

Enclosure

APPROVAL SHEET
H11110


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
Cartographic Team
Pacific Hydrographic Branch

Date: 2/2/2006

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.


Donald W. Haines, CDR/NOAA
CDR, NOAA
Chief, Pacific Hydrographic Branch

Date: 8 Feb 2006

