

H11231

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-10-05-03

Registry No. H-11231

LOCALITY

State Alaska

General Locality SW Alaska Peninsula

Sublocality Lower Kuiu Bay, Foot Bay & Fishhook Bay

2003

CHIEF OF PARTY

..... CDR J.W.Humphrey, NOAA

LIBRARY & ARCHIVES

DATE

HYDROGRAPHIC TITLE SHEET

H11231

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-10-05-03

State Alaska

General Locality SW Alaska Peninsula

Sublocality Lower Kuiu Bay, Foot Bay and Fishhook Bay

Scale 1:10,000

Date of Survey 7/10/2003 - 8/10/2003

Instructions Date 7/3/2003

Project No. OPR-P182-RA-03

Vessel NOAA Ship launches RA1, RA2, RA4, RA5, RA6, RA7

Chief of Party CDR J.W. Humphrey, NOAA

Surveyed by RAINIER Personnel

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

Graphic record scaled by RAINIER Personnel

Graphic record checked by RAINIER Personnel

Evaluation by B. Taylor

Automated plot by HP Designjet 1050C

Verification by Tina D Lomnicky, Elias Domingas

Soundings in Fathoms and tenths

at

MLLW

REMARKS: Time in UTC. UTM Projection Zone 4

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 H11231

Project OPR-P182-RA-03
Southwest Alaska Peninsula, Alaska
Scale 1:10,000
July - August 2003
NOAA Ship RAINIER
Chief of Party: Commander John W. Humphrey, NOAA

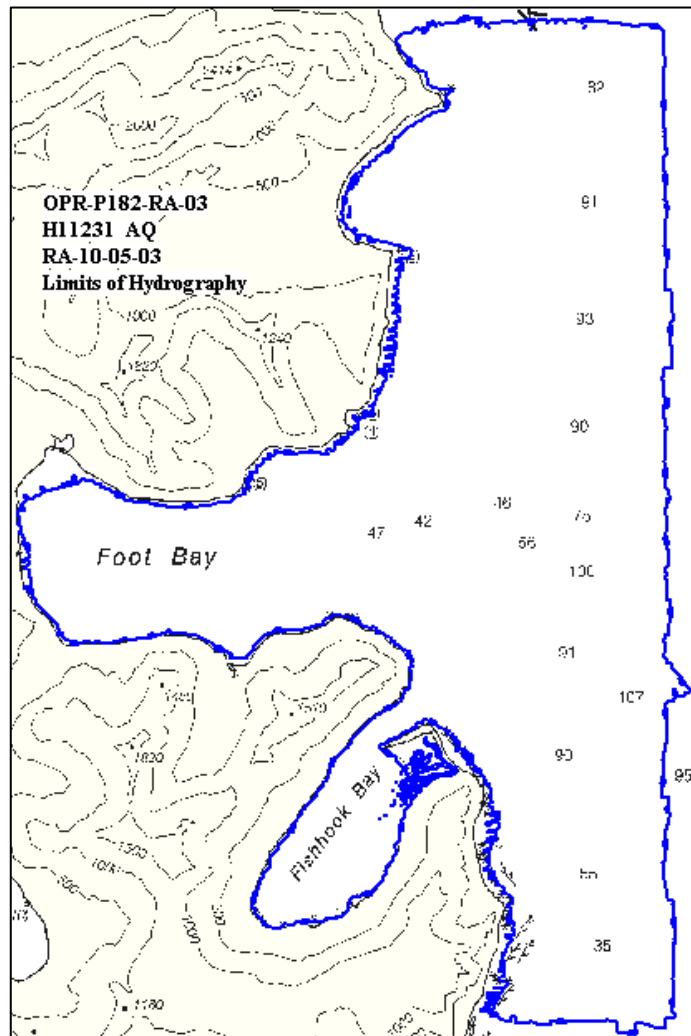


Figure 1. H11231 Survey Limits.

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-P182-RA-03, dated July 3, 2003, and the Draft Standing Project Instructions dated March 21, 2001. The survey area is Kuiu Bay and the approaches, on the Gulf of Alaska side of the Alaska Peninsula and approximately 25 nautical miles SW of

Castle Cape. This survey corresponds to sheet "AQ" 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 greater than 100 meters from shore and deeper than 8 meters. Some additional coverage was obtained to obtain least depths over significant features or shoals inshore of this limit. Vertical-beam echo sounder (VBES) data were acquired in depths from 4 to 50 meters to define the four-meter curve and to aid in the planning of SWMB data acquisition.

Data acquisition was conducted from July 10 to August 10, 2003 (DN 191 to 222).¹

B. DATA ACQUISITION AND PROCESSING

A complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods can be found in the *OPR-P182-RA-03 Data Acquisition and Processing Report (DAPR)*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 RA1, RA2, RA4, RA5, RA6, and RA7. Vessels RA4, RA5, & RA6 were used to acquire shallow-water multibeam (SWMB) soundings and sound velocity profiles. Vessels RA1, RA2, and RA7 were used to acquire vertical-beam echo soundings (VBES) and detached positions (DPs) for shoreline verification. Vessels RA1 and RA2 were also used to collect bottom samples.

No unusual vessel configurations were used for data acquisition.

B2. Quality Control

Crosslines

Vertical Beam Echo Sounder (VBES) crosslines including buffer lines totaled 16.62 nautical miles, comprising 42.1% of mainscheme hydrography. Crosslines generally agreed within 1 meter of mainscheme hydrography.

Shallow-Water Multibeam (SWMB) crosslines totaled 27.45 nautical miles, comprising 10.9% of SWMB hydrography. The mainscheme bathymetry was manually compared to the crossline nadir beams in CARIS subset mode and agreed well with differences averaging approximately 0.5 meter.

A statistical Quality Control Report has been conducted on data³ representative data collected with each system used on this survey and is included in the *OPR-P182-RA-03 DAPR*. All systems collect data that meet IHO order 2 specifications, or better.⁴

Through manual examination of the data and statistical analysis of data, QC report, ⁵accuracy standards for this survey have been met.⁶

Junctions

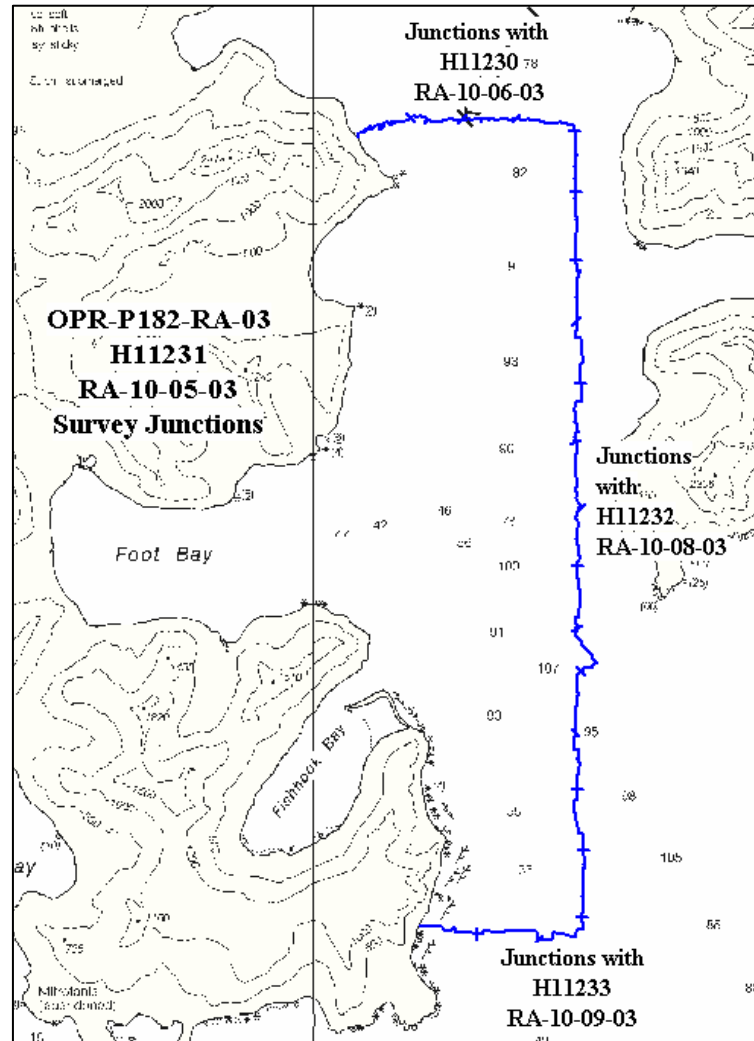


Figure 2. H11231 Junction Surveys.

The following contemporary survey junctions with H11230 and H11232⁷:

<u>Registry #</u>	<u>Scale</u>	<u>Date</u>	<u>Junction side⁸</u>
H11230	1:10,000	2003	North
H11232	1:10,000	2003	East
H11233	1:10,000	2003	South

Surveys H11232 and H11233 junction well with this survey, a cursory comparison indicates differences are generally one to two fathoms in deep water and within 1 fathom difference near shore.⁹

Survey H11230 was not complete at the time of this report. The soundings at this junction have not been compared.¹⁰

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

Data Quality Factors

In near shore areas of Fishhook Bay, seagrass often obscured the detection of the bottom. In the SWMB data, removal of soundings obtained over eelgrass was not possible in HDCS SwathEdit, as there is no definitive way to determine if a sounding is on a feature such as a rock, or on eelgrass. In HDCS Subset Mode, in some instances, it was possible to discern the true bottom, as eelgrass often appeared as soundings “disconnected” from the continuous bottom. In these instances soundings over eelgrass were rejected. However, when unable to clearly distinguish between the bottom and eelgrass, the eelgrass was not rejected. Areas with eelgrass were noted by the Hydrographer during shoreline verification and are also indicated in the “H11231_ShorelineNotes” table of the Detached Position and Bottom Sample Plot.¹¹

B3. Data Reduction

Data reduction procedures for survey H11231 conform to those detailed in the *OPR-P182-RA-03 DAPR*.

C. VERTICAL AND HORIZONTAL CONTROL

A complete description of vertical and horizontal control for survey H11231 can be found in the *OPR-P182-RA-03 Horizontal and Vertical Control Report*,¹² 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 Cold Bay (289 kHz) were utilized during this survey. Launch-to-launch DGPS performance checks using U.S. Coast Guard beacon Kodiak Island (313 kHz) as the check station were performed in accordance with Section 3.2 of the Field Procedures Manual (FPM). Copies of the performance checks are included in the *OPR-P182-RA-03 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 Sand Point, AK (945-9450) served as control for datum determination and as the primary source for water level reducers for survey H11231.

RAINIER personnel installed Sutron 8210 “bubbler” tide gauge at the following subordinate station 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
Hump Island	945-8964	30-day	July 9, 2003	August 10, 2003

All data were reduced to MLLW using unverified observed tides from station Sand Point, AK using the tide file 9459450.tid and time and height correctors using the zone corrector file P182RA2003CORP.zdf.

The Pacific Hydrographic Branch will apply final approved (smooth) tides to the survey data during final processing. A request for delivery of final approved (smooth) tides for survey H11231 was forwarded to N/OPS1 on August 13, 2003.¹³ A copy of the request is included in Appendix IV.¹⁴

D. RESULTS AND RECOMMENDATIONS

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

There were no AWOIS items located within the limits of H11231.¹⁵

D.2 Chart Comparison

Survey H11231 was compared with charts¹⁶ 16011 (35th Ed.; December 2, 2000, 1:1,023,188),¹⁷ chart 16561 (1st Ed.; January 20, 2001, 1:80,000).¹⁸

Chart 16011

Due to the scale of chart 16011, only two charted soundings fall within the limits of survey H11231. Depths from survey H11231 generally agreed with the depths on chart 16011. In these two instances shoaler soundings were found between the charted depths.¹⁹ This can be attributed to increased bottom coverage using SWMB methods.²⁰

Chart 16561

A lead-line survey was conducted in 1914 and these soundings are shown on chart 16561. The depths from survey H11231 in the southern portion are up to 20 fathoms shoaler, while near latitude 56° 03' 00" N the depths are 30 fathoms deeper as compared to this lead-line survey.²¹ This can be attributed to the limitations of a lead-line survey in very deep water and increased bottom coverage using SWMB.²²

Data accuracy standards and bottom coverage requirements have been met. The survey data is adequate and should 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

Vector photogrammetric project AK90902 was supplied by N/NGS3 in the form of a cartographic feature file (CFF). RAINIER conducted limited shoreline verification of the CFF. In addition, features shown on the current editions of charts 16011 and 16561 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 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*.

A detailed Detached Position and Bottom Sample plot²⁵, 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 H11231_Shoreline and shown in black. New MLLW features and changes to the MLLW²⁶ shoreline, CFF or charted, are displayed in pink on the "H11231_Shoreline_Updates" Mapinfo table. Charted shoreline, when used for reference purposes or when source data were not available, is depicted in the MapInfo table "H11231_CHD(16561)_Shoreline." and displayed in brown.

Source Shoreline Changes and New Features

A report was generated by Pydro v.3.7.1 and included in Section V of *Descriptive Report Appendices*.²⁷

Charted Features

The charted (16561) MLLW at 56°01'25.698"N, 158°38'54.748"W (521906.21E, 6208784.74N) and 56°04'27.779"N, 158°39'43.326"W (521037.59E, 6214409.74N) are more accurate than the CFF shoreline at these locations. The Hydrographer recommends retaining the charted MLLW as depicted on the DPBS plot.²⁸

The charted (16561) islet at 56°02'11.310"N, 158°39'55.858"W (520841.34E, 6210189.62N) is an extent of a new ledge. The Hydrographer recommends removing the charted islet and charting the new ledge as depicted on the DPBS plot.²⁹

The charted (16561) islet at 56°00'23.162"N, 158°40'56.417"W (519808.55E, 6206841.21N) was disproved with 100% multibeam. The Hydrographer recommends removing the islet from the chart.³⁰

The charted (16561) islet (*Figure 3*) at 56°00'24.674"N, 158°39'52.852"W (520909.37E, 6206893.14N) is a high point on land and at the CFF MHW. The Hydrographer recommends removing the islet from the chart.³¹

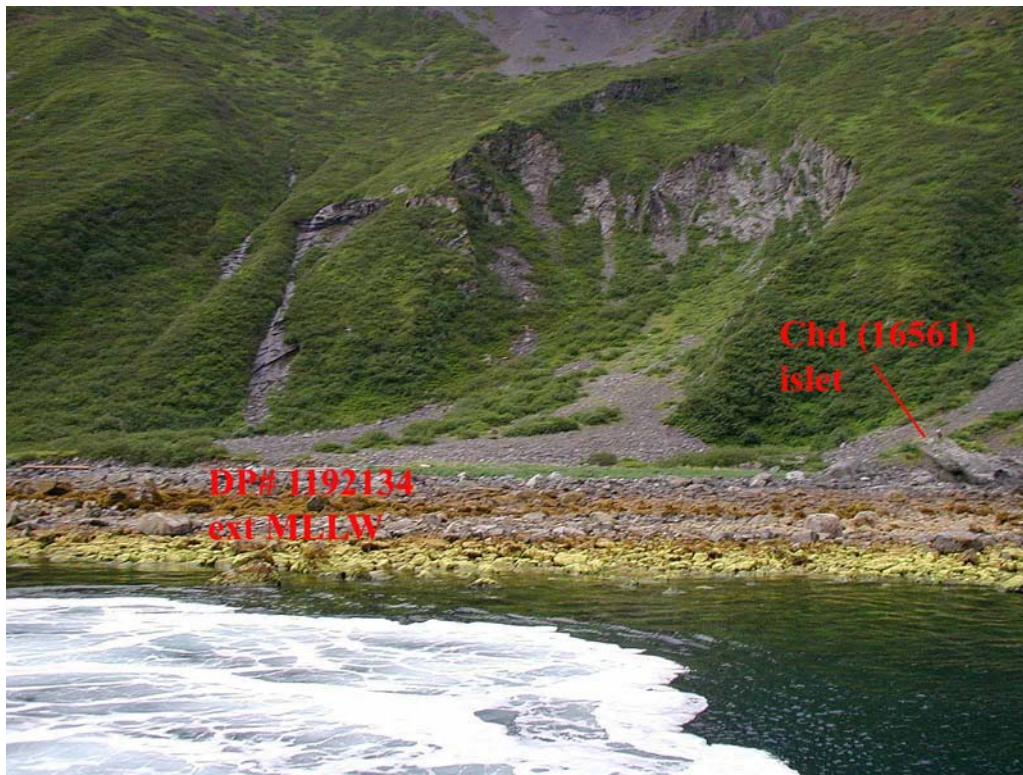


Figure 3. Photograph of Shoreline and Feature on Land at MLLW.

Recommendations

The Hydrographer recommends that the shoreline as depicted on the Detached Position and Bottom Sample and final sounding MapInfo digital file supersede and complement shoreline information compiled on the CFF and charts as noted.³² 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 "H11231_Shoreline_Notes."

D.4 Dangers to Navigation

No dangers to navigation (DTONs) were found within the limits of H11231.³³

D.5 Aids to Navigation

No aids to navigation (ATONs) are located within the limits of H11231.³⁴

D.6 Miscellaneous

Bottom samples were collected and are depicted on the Detached Position and Bottom Sample Plot.³⁵ There are no historical bottom samples for this area to compare with.

Raw XTF data were discovered to be missing from the RAID storage device. Unfortunately this discovery apparently occurred after the 2-week window during which the missing data could have been recovered from the automated back-up files. An additional search of all other possible locations also revealed no trace of the missing data. No XTF data from vessels RA4 and RA5 are included with the digital data submission.³⁶

In February 2004, the RAINIER was informed of a bug in CARIS SBEdit that incorrectly changes the Observed depths if the VBES data is processed in the following manner: SVP correct (at least once), followed by depth edits (includes accept/reject flagging), followed by an additional SVP correct and merge. By re-converting the raw VBES lines on survey H11231 and copying the SLRange, SLRangeLineSegments, SLRangeTmIdx files into the original processed line file folders, and re-merging, the errors from the Sbedit bug were removed. Upon querying the depth difference between the data as it originally left the ship and the data after the SVP bug was corrected for, 85% of the soundings with the same latitude and longitude showed a difference in depth (greater than zero) and 24% of those soundings with the same positions had a depth difference greater than 0.05m. The submitted HDCS_DATA for this survey includes the corrected VBES depths and meets requirements.³⁷

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 for 2003.

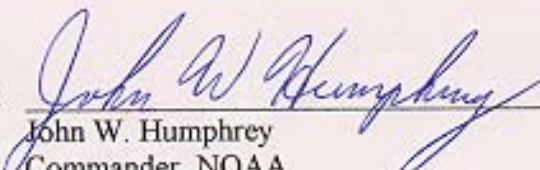
The digital data and supporting records have been reviewed by me, are considered complete and adequate for charting purposes, and are approved. All records are forwarded for final review and processing to N/CS34, Pacific Hydrographic Branch.

Survey H11231 is complete and adequate to supersede charted soundings³⁸ in their common areas. No additional work is required for this survey.

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

<u>Title</u>	<u>Date Sent</u>	<u>Office</u>
Data Acquisition and Processing Report for OPR-P182-RA-03	12/09/03	N/CS34
Horizontal and Vertical Control Report for OPR-P182-RA-03	4/30/04	N/CS34
Tides and Water Levels Package for OPR-P182-RA-03	10/20/03	N/OPS1
Coast Pilot Report for OPR-P182-RA-02	1/28/04	N/CS26

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:


 Amanda J. McKinney
 Survey Technician, NOAA

Field Operations Officer:


 Richard A. Fletcher
 Lieutenant Commander, NOAA

Revisions Compiled During Office processing and Certification

¹ Concur.

² Filed with the project reports.

³ Strikethrough ~~data~~.

⁴ Concur with clarification. As discussed in the PHB H11231 Survey Certification Memo (filed with the hydrographic records), data should conform to specifications set forth in the HSSDM requiring that the data meet IHO Order 1 specifications. After a PHB quality control review of crosslines, the reviewer concluded that H11231 met IHO Order 1 specifications. The data is acceptable for charting.

⁵ Insert, “the hydrographer concludes that”

⁶ Concur with clarification. H11231 is adequate to supersede all prior surveys and charted miscellaneous source data in the common areas except as noted in this report or the Hdrawing.

⁷ Strikethrough ~~H11230 and H11232~~, replace with “H11231”.

⁸ In PHB processing, H11231 was also compared at its southwestern junction with LIDAR survey H11261 (OPR-P182-KRL-04). The comparison showed good correlation, generally to within 1 to 2 fathoms. MHWL revisions, sounding and features from LIDAR data have been applied to the Hdrawing in near-shore areas where H11231 multibeam or VBES data did not extend. Data from LIDAR source is found on Level 7 of the Hdrawing. All junction surveys have been considered in compiling the Hdrawing.

⁹ Concur.

¹⁰ Office comparison of survey H11231 with completed survey H11230 showed good correlation, generally to within 1 to 2 fathoms.

¹¹ Chart all areas according to the smooth sheet and Hdrawing.

¹² Filed with the project reports.

¹³ Approved Tide Note dated September 28, 2004 is attached to this report.

¹⁴ Filed with the hydrographic records.

¹⁵ Concur.

¹⁶ Strikethrough ~~charts~~, replace with “chart”.

¹⁷ Insert “and”.

¹⁸ In PHB processing, H11231 was also compared with Chart 16011, 36th Edition, continuous maintenance raster dated 8/23/06 and Chart 16561, continuous maintenance raster dated 3/3/06.

¹⁹ Concur.

²⁰ Concur.

²¹ Concur with clarification. Depths in the southern portion of the survey are up to 25 fathoms shoaler than charted. Depths in the vicinity of latitude 56/03/00N are up to 29 fathoms deeper than charted.

²² Concur.

²³ Concur.

²⁴ No further changes to the chart comparison were noted after application of smooth tides, except as discussed in Endnote 20.

²⁵ Filed with the hydrographic records.

²⁶ Strikethrough ~~MLLW~~, replace with MHW.

²⁷ Concur with clarification. The attached Pydro Shoreline Report has been revised with PHB comments.

²⁸ Concur with clarification. No MLLW is charted at either position on Chart 16561, 1st Edition. In a third location, at the vicinity of Lat 56/2/4.7N and Lon 158/39/33.93W, the DPBS plot also recommends retaining charted MLLW where none is charted. At all three locations, the hydrographer's notes point to the charted (16561, 1st Edition) MHWL. The evaluator concludes that the hydrographer intended MLLW lines to coincide with charted shoreline at these locations. These areas are shown as dotted lines on the smooth sheet and are depicted on Level 2 of the Hdrawing as dotted red lines. Chart according to the smooth sheet and Hdrawing.

²⁹ Concur with clarification. Chart according to the smooth sheet.

³⁰ Concur. Chart vicinity according to the smooth sheet.

³¹ Concur. Chart vicinity according to the smooth sheet.

³² Concur with clarification. LIDAR data have also been compiled to the Hdrawing as warranted. Chart all areas according to the H11261 and H11231 smooth sheets and Hdrawing.

Two rocks charted on 16561, continuous maintenance raster dated 3/3/06, are not charted on 16561, 1st Edition, January 2001 and are not discussed by the hydrographer. Their approximate positions are:

 Lat 56/03/21.58N and Lon 158/39/52.67W

 Lat 56/03/06.88N and Lon 158/43/17.24W

Retain charted rocks as depicted on the smooth sheet and Hdrawing.

³³ Concur.

³⁴ Concur.

³⁵ Concur. Chart Bottom Samples according to the smooth sheet and Hdrawing.

³⁶ Concur. Lack of XTF data submission is not considered to adversely affect overall survey data quality. The survey is acceptable for charting.

³⁷ Concur. The data is acceptable for charting.

³⁸ Insert "and features".



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: September 28, 2004

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-P182-RA-2003
HYDROGRAPHIC SHEET: H11231

LOCALITY: Lower Kuiu Bay, Foot Bay, and Fishhook Bay, AK
TIME PERIOD: July 10 - August 10, 2003

TIDE STATION USED: 945-8964 Hump Island, Alaska
Lat. 56° 06.8'N Lon. 158° 35.9'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.174 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: SWA169 & SWA169A.

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).

[Handwritten Signature]

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION



Final Tidal Zoning for OPR-P182-RA-2003 Southwest Alaska Peninsula - Sheet H11231

IUKTA BAY

of Symbols and Abbreviations, see Chart No. 1,
as otherwise indicated:

green	Mo mine cable	R TR radio tower
interrupted quick	N nun	Rd road
isobath	OBSC obscured	s second
HO lighthouse	Oc occulting	SEC sector
isobath mile	Ox opening	S M stable even
huts	Q quick	VO very quick
HO TR microwave tower	R red	W white
marker	Ra Ra radar reflector	WHS wherry
	R Di diode beacon	Y yellow
	Qc Qc	to soft
	N hard	Sh shells
	M mud	Sy sticky
	to systems	Sub submerged
	to mud	to reported
	S sand	to indicated
		with heights in feet above datum of soundings

NOTATION

Land shorelines may have occurred
result of the earthquake of March
1964 since the earthquake indicated
a 2 foot at Chignik Bay, Alaska
at Sand Point, Popoff Island
in the vicinity of Merit
is navigating in
of change except

NAVIGATION

See: General Light List for
information concerning aids to

WARNING

Chart users not rely solely on
navigation, particularly on
U.S. Coast Guard Light List
for details.

CAUTION

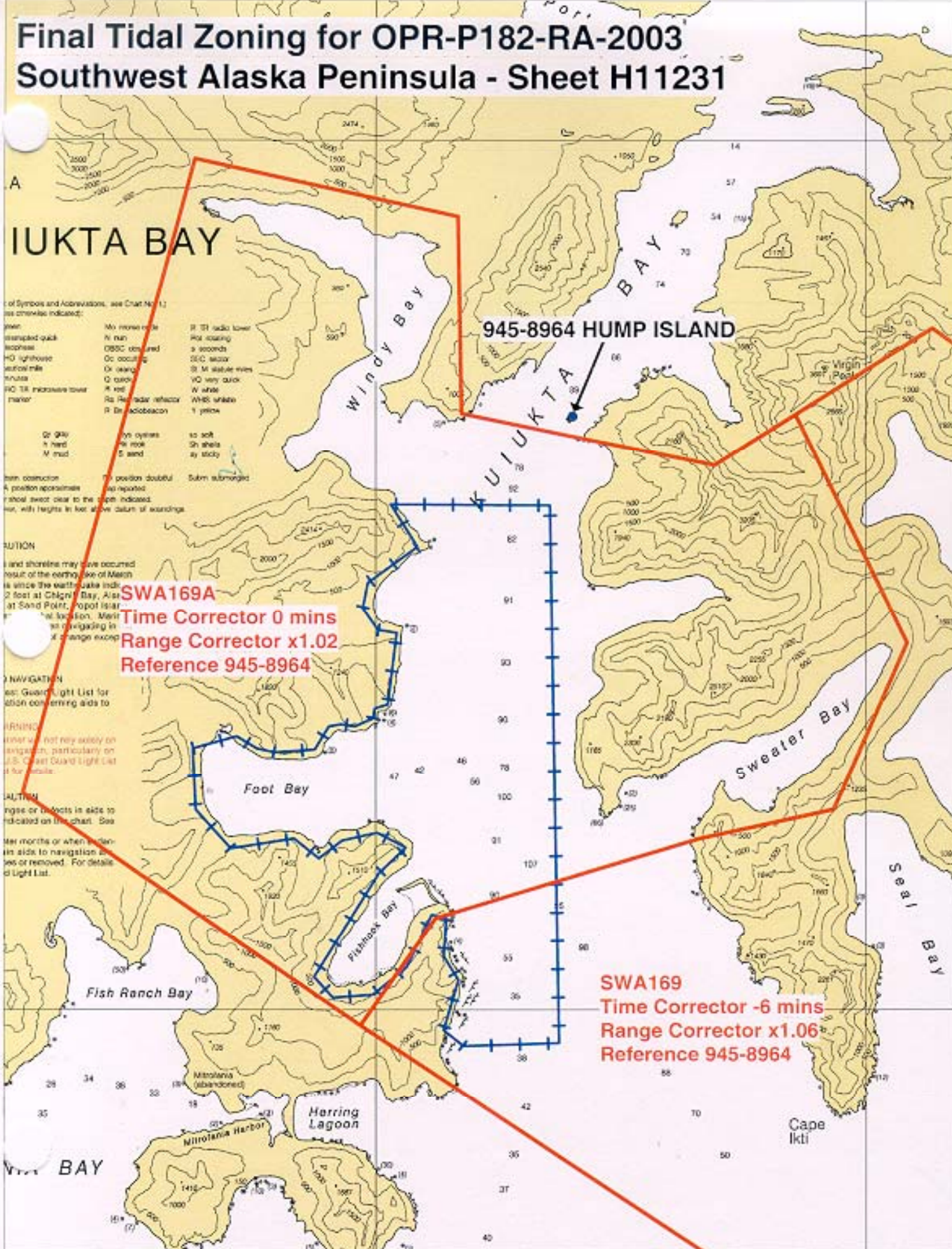
Edges or objects in aids to
navigation are indicated on this chart. See
General Light List for details.
See notices or when in doubt
in aids to navigation are
added or removed. For details
see Light List.

WEST BAY

945-8964 HUMP ISLAND

SWA169A
Time Corrector 0 mins
Range Corrector x1.02
Reference 945-8964

SWA169
Time Corrector -6 mins
Range Corrector x1.06
Reference 945-8964



Final tide zone node point locations for OPR-P182-RA-2003, Sheet H11231.

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 SWA169	945-8964	-6	1.06
-158.41177 56.075263			
-158.249691 56.02319			
-157.900613 55.91079			
-157.130644 55.737042			
-157.046414 55.726228			
-157.221105 55.612695			
-157.279247 55.54056			
-158.028274 55.755495			
-158.671891 55.997061			
-158.646196 56.017708			
-158.556712 56.03303			
-158.510936 56.038617			
-158.48576 56.070531			
-158.523965 56.114338			
-158.477124 56.130876			
-158.477124 56.130876			
-158.4259 56.110439			
-158.41177 56.075263			
Zone SWA169A	945-8964	0	1.02
-158.556712 56.03303			
-158.510936 56.038617			
-158.48576 56.070531			
-158.523965 56.114338			
-158.55134 56.104644			
-158.594428 56.10955			
-158.637321 56.114508			
-158.63846 56.15224			
-158.728106 56.163161			
-158.786681 56.04173			

-158.671891 55.997061

-158.646196 56.017708

-158.556712 56.03303

20

Registry Number: H11231
State: Alaska
Locality: Southwest Alaska Peninsula
Sub-locality: Lower Kuiu Bay, Foot Bay and Fishhook Bay
Project Number: OPR-P182-RA-03
Survey Dates: 07/11/2003 - 07/12/2003

Charts Affected

Number	Version	Date	Scale
16561	1st Ed.	01/20/01	1:80000
16013	28th Ed.	04/14/01	1:969761
16011	35th Ed.	12/02/00	1:1023188
16006	33rd Ed.	12/23/00	1:1534076
500	7th Ed.	06/01/96	1:3500000
530	30th Ed.	03/23/02	1:4860700
50	5th Ed.	07/30/94	1:10000000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	1192103	Sounding	-0.61 m	56.00610686° N	158.68230947° W	---
1.2	1192124	Sounding	0.16 m	56.00541416° N	158.67174190° W	---
1.3	1192280	Rock	-2.53 m	56.00608744° N	158.63606445° W	---
1.4	1192283	Rock	-1.68 m	56.01793374° N	158.63945510° W	---
1.5	2193197	Sounding	-1.54 m	56.08977199° N	158.64796484° W	---

1.1) 1192103

Survey Summary

Survey Position: 56.00610686° N, 158.68230947° W
Least Depth: -0.61 m
Timestamp: 2003-192.16:04:47.000 (07/11/2003)
DP Dataset: h11231 / r1ne_2003 / 2003-192 / dp1192
Profile/Beam: 2/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

new ext MLLW

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11231/r1ne_2003/2003-192/dp1192	2/1	0.00	000.0	Primary

Hydrographer Recommendations

Remove charted MLLW and chart new extent MLLW as depicted on DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

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

Office Notes

Concur with clarification. Replace "DPBS plot" with "smooth sheet".

1.2) 1192124

Survey Summary

Survey Position: 56.00541416° N, 158.67174190° W
Least Depth: 0.16 m
Timestamp: 2003-192.16:14:19.000 (07/11/2003)
DP Dataset: h11231 / r1ne_2003 / 2003-192 / dp1192
Profile/Beam: 4/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Chd(16561) rk is ext MLLW.

Chd(16561) rk disproved with SWMB and visual inspection during shoreline verification.

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11231/r1ne_2003/2003-192/dp1192	4/1	0.00	000.0	Primary

Hydrographer Recommendations

Remove charted rock and chart MLLW as depicted on DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

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

.1m (500_1, 50_1)

Office Notes

Concur with clarification. Replace "DPBS plot" with "smooth sheet".

1.3) 1192280**Survey Summary**

Survey Position: 56.00608744° N, 158.63606445° W
Least Depth: -2.53 m
Timestamp: 2003-192.17:13:43.000 (07/11/2003)
DP Dataset: h11231 / r1ne_2003 / 2003-192 / dp1192
Profile/Beam: 12/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Chd(16561) islet is rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11231/r1ne_2003/2003-192/dp1192	12/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart new rock and remove the charted islet.

Cartographically-Rounded Depth (Affected Charts):

-1 ¼fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
-2.6m (500_1, 50_1)

Office Notes

Concur.

1.4) 1192283

Survey Summary

Survey Position: 56.01793374° N, 158.63945510° W
Least Depth: -1.68 m
Timestamp: 2003-192.17:32:23.000 (07/11/2003)
DP Dataset: h11231 / r1ne_2003 / 2003-192 / dp1192
Profile/Beam: 15/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Chd(16561) islet is rk

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11231/r1ne_2003/2003-192/dp1192	15/1	0.00	000.0	Primary

Hydrographer Recommendations

Chart new rock and remove islet from chart.

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -1.7m (500_1, 50_1)

Office Notes

Concur.

1.5) 2193197

Survey Summary

Survey Position: 56.08977199° N, 158.64796484° W
Least Depth: -1.54 m
Timestamp: 2003-193.19:13:50.000 (07/12/2003)
DP Dataset: h11231 / r2ne_2003 / 2003-193 / dp2193
Profile/Beam: 20/1
Charts Affected: 16561_1, 16013_1, 16011_1, 16006_1, 500_1, 530_1, 50_1

Remarks:

Chd(16561) islet is ext new ldg

Feature Correlation

Address	Feature	Range	Azimuth	Status
h11231/r2ne_2003/2003-193/dp2193	20/1	0.00	000.0	Primary

Hydrographer Recommendations

Remove charted islet and chart new ledge as depicted on DPBS plot.

Cartographically-Rounded Depth (Affected Charts):

0 ¾fm (16561_1, 16013_1, 16011_1, 16006_1, 530_1)
 -1.6m (500_1, 50_1)

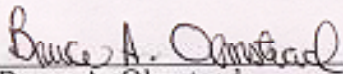
Office Notes

Concur with clarification. Replace "DPBS plot" with "smooth sheet". Due to scale, chart rock at ledge position as depicted on the Hdrawing.

APPROVAL SHEET
H11231

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 A. Olmstead
Cartographic Team
Pacific Hydrographic Branch

Date: 11/20/2006

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
Chief, Pacific Hydrographic Branch

Date: 21 Nov. 2006

MARINE CHART BRANCH
RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-11231

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
16561	9/5/06	B. Taylor	Full Part Before After Marine Center Approval Signed Via Application Drawing No. <u>of soundings & features from</u> <u>smooth sheet</u>
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
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