H11003

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-10-08-00

Registry No. H-11003

LOCALITY

State Alaska

General Locality Southwest Prince William Sound

Sublocality Western Coast of Montague Island
8 Miles South of Green Island

2000

CHIEF OF PARTY

Commander Daniel R. Herlihy, 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

H-11003

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-10-08-00

State **Alaska**

General Locality **Southwest Prince William Sound**

Sublocality **Western Coast of Montague Island - 8 Miles South of Green Island**

Scale **1:10,000** Date of Survey **9/13/00 - 10/18/00**

Instructions Dated **Aug. 25, 2000** Project No. **OPR-P139-RA**

Vessel **RA-1(2121), RA-2(2122), RA-3(2123). RA-4(2124), RA-5(2125), RA-6(2126), and RA-7(2127)**

Chief of Party **Commander D. R. Herlihy, NOAA**

Surveyed by **Ship personnel and physical scientists from Pacific Hyrographic Branch**

Soundings taken by echo sounder, hand lead, pole **SB 1180, RESON 8101, Knudsen 320**

Graphic record scaled by **RAINIER Personnel**

Graphic record checked by **RAINIER Personnel**

Evaluation by **L. Deodato** Automated plot by **HP DesignJet 1050C**

Verification by **E. Domingo, R. Davies, R. Mayor, L. Deodato**

Soundings in **Fathoms** at **MLLW**

REMARKS: **Time in UTC.**

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

All depths listed in this report are referenced to mean lower low water unless otherwise noted.

Descriptive Report to Accompany Hydrographic Survey H11003

Project OPR-P139-RA-00[1] Southwest Prince William Sound
Scale 1:10,000
September - October 2000
NOAA Ship RAINIER
Chief of Party: Commander Daniel R. Herlihy, NOAA

A. AREA SURVEYED

This hydrographic survey was completed as specified by Hydrographic Survey Letter Instructions OPR-P139-RA-00[2], dated August 25, 2000, and the Draft Standing Project Instructions dated April 6, 1998. The survey area is located along the Western Coast of Montague Island, 8 miles South of Green Island. The survey's northern limit is latitude 60°09'42"N[3] and the southern limit is latitude 60°04'05.77" N[4]. The survey's western limit is longitude 147°30'27.76" W[5] and the eastern limit is longitude 147°22'24.26" W[6].

Data acquisition was conducted from 13 September to 18 October 2000 (DN 257 to 293[7]).

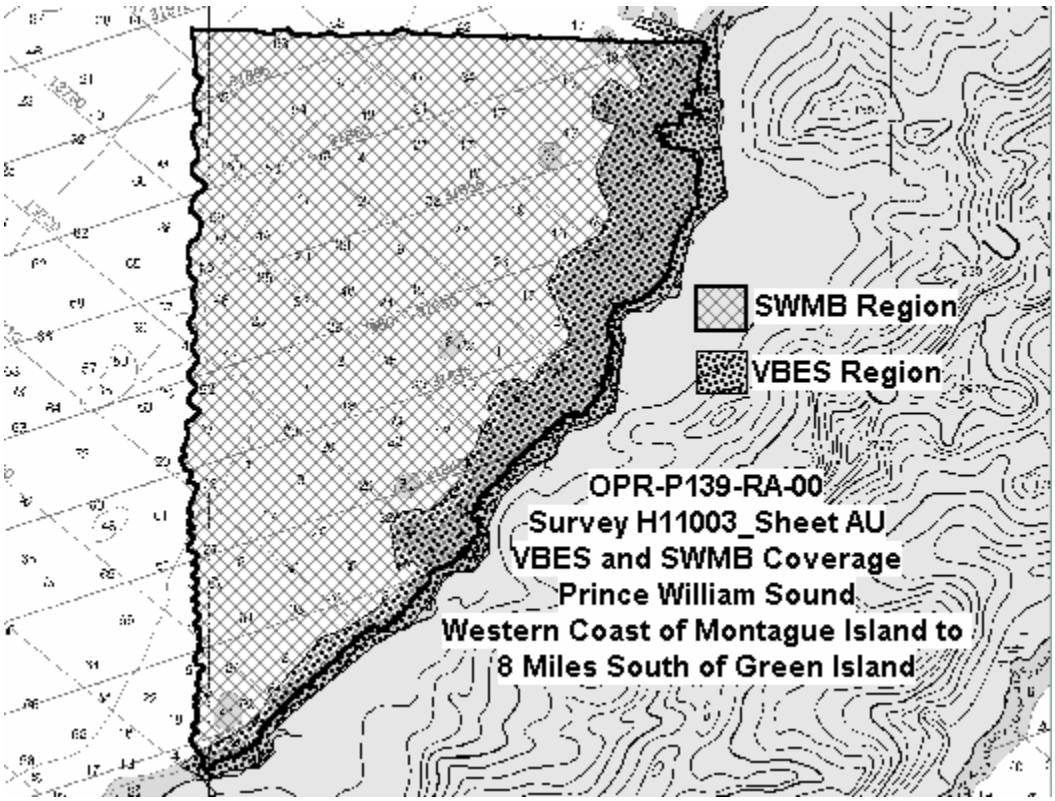

Figure 1: H11003 survey limits

B. DATA ACQUISTION AND PROCESSING

A complete description of data acquisition and processing systems, survey vessels, quality control procedures, and data processing methods, can be found in the *OPR-P139-RA-00 Data Acquisition and Processing Report* 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, 2126 and 2127). Vessels 2121, 2123, 2124, and 2126 were used to acquire shallow-water multibeam soundings and sound velocity profiles. Vessels 2122 and 2125 were used to acquire vertical-beam echo soundings. Vessel 2125 was also used to collect bottom samples. Vessels 2122, 2125, and 2127 were used to obtain detached positions during shoreline verification. No unusual vessel configurations or problems were encountered on this survey.

B2. Quality Control

Crosslines

VBES crosslines totaled 12.0 nautical miles, comprising 16.3% of mainscheme hydrography. Crosslines agreed within 1 meter of mainscheme hydrography.

SWMB crosslines totaled 21.03 nautical miles, comprising 15.73% of MB hydrography. The Quality Control Report (CARIS HIPS) for the RESON checkline file averaged 96.33%; the Quality Control Report (CARIS HIPS) for the Seabeam checkline file averaged 92.45%. See Appendix V for the detailed reports. Each report had a depth tolerance factor of 0.013, which conforms to International Hydrographic Organization Order I specifications as detailed in Special Publication S-44, Edition 4; this also conform to NOAA specifications, as set forth in the NOS Hydrographic Surveys Specification and Deliverables Manual (HSSDM)[8].

Junctions[9]

The following contemporary surveys junction with H11003:

Registry #	Scale	Date	Junction side
H11001	1:10,000	2000	North
H11002	1:10,000	2000	Northwest[10]
H11004	1:10,000	2000	Southwest

[11]

At the time of this report, processing of H11001 and H11002 was not complete. Comparisons with H11003 will be discussed in the respective Descriptive Reports for H11001 and H11002.

Depths from H11003 generally agreed within one fathom of those from H11004.

Final comparisons will be made at the Pacific Hydrographic Branch (PHB) after the application of smooth tides.[12]

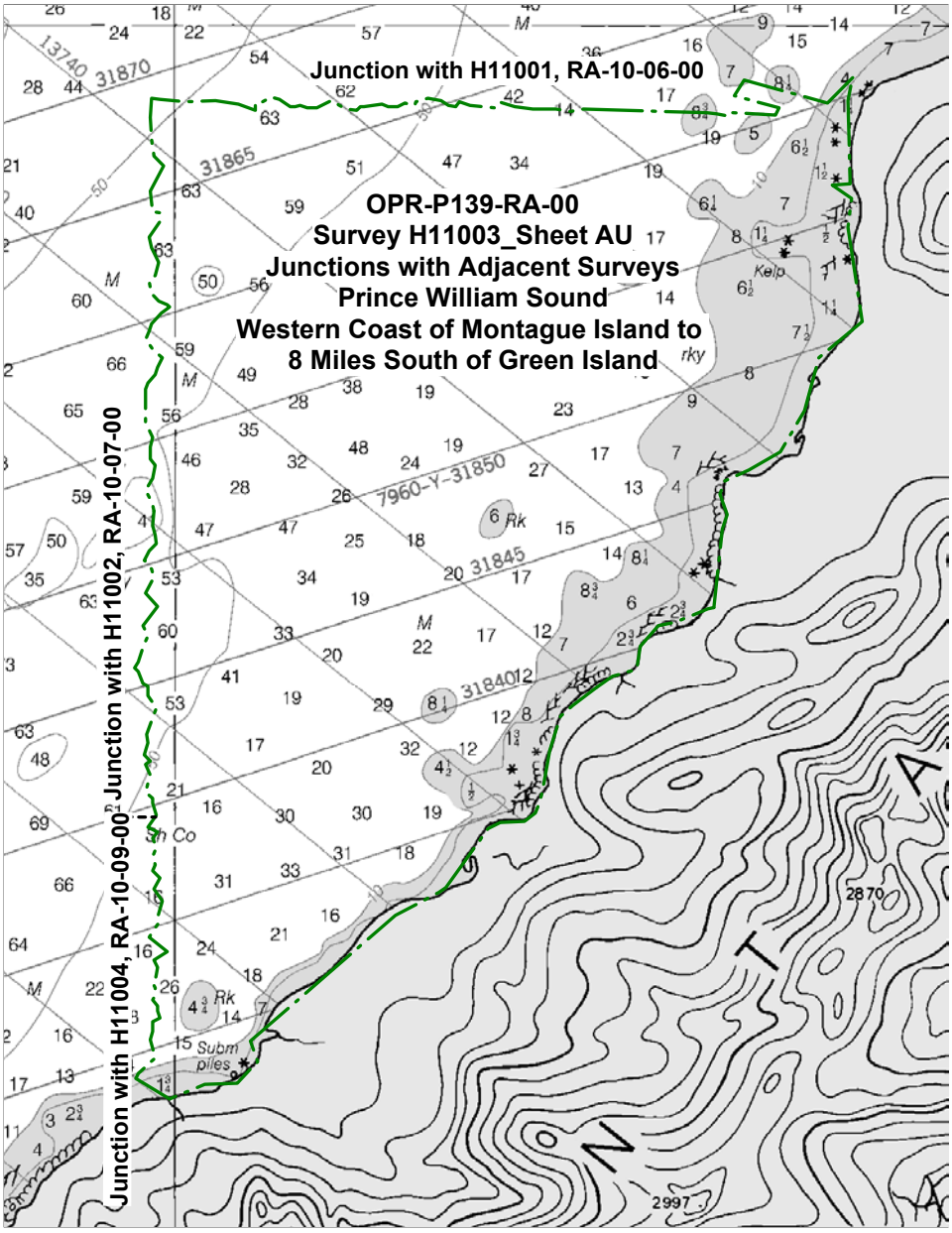

Figure 2: Survey H11003 limits and junctions with other surveys.

Data Quality Factors

In several areas near shore 10 meters and shoaler, thick eelgrass often obscured the detection of the bottom. On the VBES fathograms, acoustic returns from eelgrass usually appeared as a faint trace clearly separated from the bottom which had a darker, more definitive trace. In this cases, the VBES digital data were edited as necessary to reflect the ture 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 "H11003_ShorelineNotes" table of the Detached Position and Bottom Sample Plot[13].

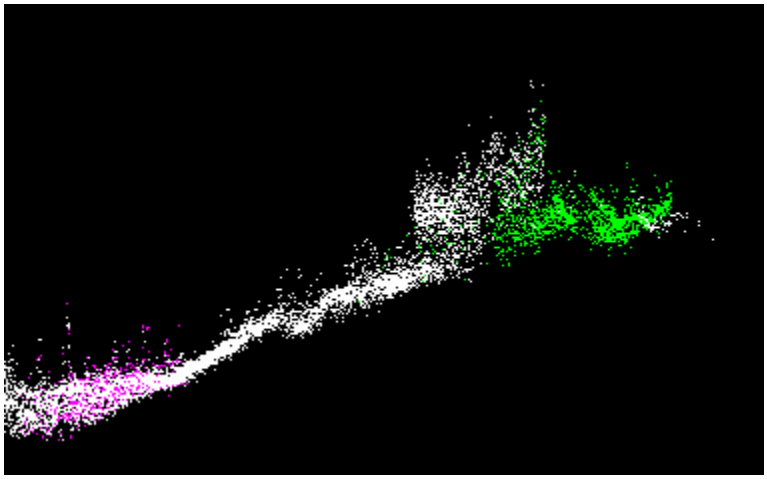

Figure 3: Image from CARIS depicting eelgrass obscuring the accurate detection of bottom.

B3. Data Reduction

Data reduction procedures for survey H11003 conform to those detailed in the *OPR-P139-RA-00 Data Acquisition and Processing Report.*

C. VERTICAL AND HORIZONTAL CONTROL

A complete description of vertical and horizontal control for survey H11003 can be found in the *OPR-P139-RA-00 Horizontal and Vertical Control Report* 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. The U.S. Coast Guard Beacons at Potato Point, AK, and Cape Hinchinbrook, AK, were the sources of differential correctors. Launch-to-launch DGPS performance checks were performed weekly in accordance with Section 3.2 of the FPM. Copies of the performance checks are included in the *OPR-P139-RA-00 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 stations at Cordova, Alaska (945-4050), and Valdez, Alaska (945-4240) will serve as control for datum determination. RAINIER personnel installed Sutron 8200 "bubbler" tide gauges at the following subordinate stations in accordance with Project Instructions:

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Station Name	Station Number	Type of Gauge	Date of Installation	Date of Removal
Perch Point	945-4561	30-day	12 September 2000	26 October 2000
Latouche	945-4713	30-day	12 September 2000	27 October 2000
Point Elrington	945-4814	30-day	25 September 2000	25 October 2000

Heavy surf and foul shoreline precluded the installation of a new station in San Juan Bay, Montague Island, as required by the Letter Instructions. After consultation with N/CS31 and N/OPS1, the following historical station was reoccupied in lieu of a new station at San Juan Bay:

Station Name	Station Number	Type of Gauge	Date of Installation	Date of Removal
MacLeod Harbor	945-4674	30-day	21 September 2000	27 October 2000

Raw water level data from these gauges were forwarded to N/OPS1 throughout the project period, with the final package submitted on November 27, 2000 in accordance with HSG 50 and FPM 4.7. 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 H11003 was forwarded to N/OPS1 on November 1, 2000 in accordance with FPM 4.8.[14]

D. RESULTS AND RECOMMENDATIONS[15]

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

One AWOIS item was within the limits of H11003 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. A printout of the AWOIS Database form is included in Appendix VI of[16] this report.

D.2 Chart Comparison

Survey H11003 was compared with chart 16700 (26th Ed.; 19 Sept. 1998, 1:200,00), and chart 16701 (17th Ed.; 25 July 1998, 1:81,436).

Depths from Chart 16700 generally agreed within 2 fathoms. Notable differences are addressed below.

In the vicinity of a charted 63-fathom sounding, at 60°09’25.60”N, 147°28’49.57”W (473,340.0E, 6,669,055.5N), the present survey revealed depths of 55 to 60 fathoms. This area was covered by 100% SWMB.

In the vicinity of a charted 14-fathom sounding at 60°09’27.31” N and 147°25’42.99” W (476,204.8E, 6,669,017.9N), the present survey revealed depths of 18 to 21 fathoms. This area was covered by 100% SWMB.

In the vicinity of a charted 63-fathom sounding at 60°08’50.97” N and 147°30’03.82” W (472,186.6E, 6,667,931.0N), the present survey revealed depths of 57 to 60 fathoms. This area was covered by 100% SWMB.

In the vicinity of a charted 49-fathom sounding at 60°08'12.32"N and 147°28'48.36"W (473,349.3E, 6,666,704.7N), the present survey revealed depths of 45 to 47 fathoms. The area was covered by 100% SWMB.

In the vicinity of a charted 28-fathom sounding at 60°07'30.06" N and 147°28'56.93" W (473,138.8E, 6,665,459.4N), the present survey revealed a depths of 34 to 39 fathoms. A peak with a least depth of 27 fathoms was surveyed 350 meters to the west[17], and a peak with a least depth of 29 fathoms was surveyed 350 meters to the northeast. This area was covered by 100% SWMB.

In the vicinity of a charted 4-fathom shoal at 60°07'39.40" N and 147°24'30.43"W (477,328.3E, 6,665,694.7N), the present survey revealed a least depth of 5.9 fathoms[18]. It is noteworthy that chart 16701 depicts a 7-fathom sounding at this position. This area is close to shore and covered by 100% SWMB.

Soundings from H11003 were generally two to three fathoms shoaler than depths from Chart 16701, and in some cases up to four fathoms shoaler. In many instances, H11003 located depths significantly shoaler (greater than three to four fathoms) than those charted, particularly on slopes or near peaks. This is likely attributable to the difference in bottom coverage obtained from SWMB when compared with prior survey methods. Notable differences to these trends, which were not otherwise submitted as dangers to navigation (refer to section D.4 and Appendix I[19]), are addressed below.

In the vicinity of a charted 20-fathom sounding at 60°05'54.30"N and 147°28'21.10"W (473,703.1E, 6,662,690.1N), the present survey revealed depths from 25 to 33 fathoms. Three 20-fathoms peaks were located nearby.[20] This area was covered by 100% SWMB.

In the vicinity of a charted 21-fathom sounding at 60°09'00.59"N and 147°26'52.2"W (475,514.4E, 6,668,193.8N), the present survey revealed soundings of 23 to 39 fathoms. This area is on a slope and was covered by 100% SWMB. A shoal with a least depth of 18.8[21] fathoms was located 220[22] meters south of this position.

In the vicinity of a charted 21-fathom sounding at 60°04'59.64"N and 147°28'50.15"W (473,232.2E, 6,660,737.0N), the present survey revealed a 16-fathom sounding. This area was covered by 100% SWMB.

In the vicinity of a charted 34-fathom sounding 60°09'14.4"N, and 147°26'12.2"W (475,753.9E, 6,668,671.8N), the present survey revealed soundings of 22 to 29 fathoms. This area is on a slope and was covered by 100% SWMB.

In the vicinity of a charted 38-fathom sounding at 60°07'59.52"N and 147°28'00.86"W (472,943.1E, 6,665,918.5N), the present survey revealed a least depth of 28 fathoms. This area was covered by 100% SWMB.

In the vicinity of a charted 46-fathom sounding at 60°07'36.03"N and 147°29'48.87"W (472,382.6E, 6,665,638.9N), the present survey revealed soundings of 39 to 44 fathoms. This area was covered by 100% SWMB.

In the vicinity of a charted 49-fathom sounding at 60°08'04.02"N and 147°29'12.22"W (472,949.5E, 6,666,484.3N), the present survey revealed a 44-fathom sounding, although a 39-fathom peak was surveyed approximately 200[23] meters to the north[24]. This area was covered by 100% SWMB.

In the vicinity of a charted 53-fathom sounding at 60°06'57.99"N and 147°30'01.93"W (472,209.3E, 6,664,422.9N), the present survey revealed a 43[25]-fathom sounding. This area was covered by 100% SWMB.

In the vicinity of a charted 53-fathom sounding at 60°06'15.02"N and 147°29'59.64"W (472,178.1E, 6,663,138.0N), the present survey revealed a least depth of 55[26]-fathoms. This area was covered by 100% SWMB.

In the vicinity of a charted 63-fathom sounding at 60°09'05.74"N and 147°29'49.52"W (472,377.2E, 6,668,407.0N), the present survey revealed a 56-fathom sounding. This area was covered by 100% SWMB.

In the vicinity of a charted 63-fathom sounding at 60°09'29.37"N and 147°28'56.72"W (473,196.1e, 6,669,137.2N), the present survey revealed a 55-fathom sounding. This area was covered by 100% SWMB.

The Hydrographer recommends superseding charted soundings with surveyed soundings in the areas of common coverage.[27]

D.3 Shoreline

N/NGS3 supplied photogrammetric shoreline data in raster format for T-12664 and T-12669 for use as source shoreline. The T-sheet raster images were registered and digitized in MapInfo by RAINIER personnel and the resultant vector data were used in Hypack for field verification. In addition, features shown on the current editions of charts 16700 and 16701 were digitized in MapInfo by RAINIER personnel and displayed in Hypack for field verification.

Shoreline verification was conducted near predicted low water in accordance with the Project Instructions and FPM 6.1 and 6.2. For this survey the general limit of safe navigation of a survey launch was 3-30 meters offshore of the apparent low water line. Water depths along this limit of safe navigation are around 4 meters at Mean Lower-Low Water (MLLW). Features unreachable by survey launch are depicted on the Detached Position Plot and the Final Field Sheet[28] and are the Hydrographer's approximate representation of the shoreline.

Detached positions (DPs) taken during shoreline verification were recorded in HYPACK and on DP forms, and processed in HPS. These indicate revisions to features, and features not found on the T-sheet or chart.

A detailed "DP and BS Plot[29]," 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. Photos of the shoreline features are included with the digital data in the "H11003_Images" folder the files are named according to fix number.

Several changes were found and several rocks disproved, which are depicted on the final DP plot. T-sheet rocks were often identified as high points or extents of new ledges. Rock disprovals were obtained by collecting VBES data over the charted area. A new reef submerged reef bordered by a foul area with kelp was found.[30]

Charted feature disprovals for Charts 16700 and 16701

The charted rock (16701) in position 60°09'26.010"N, 147°22'43.986"W (478967.1E, 6668981.5N, Fix number 22,097) from chart 16701 was disproved using a visual search on DN 267 and a VBES search in a star pattern (Fixes 22,087 – 22,096) concurrent with VBES. The Hydrographer believes that this rock may represent the T-Sheet ledge surveyed 75 meters to the east and recommends charting it as a ledge.[31]

The charted rock (16700, 16701) in position 60°09'20.929"N, 147°22'45.932"W (478936.2E, 6668824.5N, Fix number 22086) was disproved using a visual search on DN 267 and a VBES in a star pattern (Fixes 22,076-22,085). Water depths in the vicinity of the rock range from 2.0 to 3.0 meters. The Hydrographer recommends removing this rock from the chart.[32]

A charted rock (16701) in position 60°06'59.186"N, 147°24'18.024"W (477489.2E, 6664448.0N, Fix number 50,902) was disproved by VBES used in a grid pattern with 10-meter line spacing (Fixes 21,528 – 21,644). Water depths range from 3.5 to 7.0 meters. The Hydrographer recommends removing this rock from the chart.[33]

A charted rock (16700) in position 60°06'54.329"N, 147°24'20.762"W (477446.0E, 664298.0N, Fix number 50,911) was disproved using a visual search on DN 258 and a VBES grid pattern with 10-meter line spacing (Fixes 21,525 – 21,558). Water depths range from 2.8 to 5.2 meters. The Hydrographer recommends removing this rock from the chart.[34]

A charted rock (16701) in position 60°05'54.269"N, 147°26'17.213"W (475635.7E, 6662451.5N, Fix number 51,486) was disproved by VBES used in a grid pattern with 10-meter line spacing (Fixes 21,689 – 21,699). Water depths range from 2.9 to 3.5 meters. A rock was located in position 60°05'54.363"N, 147°26'32.512"W (475399.4E, 6662456.0N, Fix number 50,965), which the Hydrographer believes may be the charted rock. The Hydrographer recommends removing this rock from the chart and charting a new rock in the surveyed position.[35]

A charted rock (16701) in position 60°05'48.607"N, 147°26'13.662"W (475689.4E, 6662276.0N, Fix number 51,515) was disproved using a visual search on DN 258 and a VBES grid patter with 10-meter line spacing (Fixes 21,898 – 21,911). Water depths range from 1.6 to 3.6 meters. The Hydrographer recommends removing this rock from the chart.[36]

A charted rock (16700) in position 60°05'44.277"N, 147°26'18.129"W (475619.5E, 6662142.5N, Fix number 51,529) was disproved using a visual search and star pattern on DN 258 and a VBES grid pattern with 10-meter line spacing (Fixes 51,516 – 51,528 and 22,027 – 22,031). Water depths range from 1.8 to 8.5 meters. The Hydrographer recommends removing this rock from the chart.[37]

A charted rock (16700, 16701) in position 60°07'02.15"N, 147°24'10.58"W was found to be the seaward-most extension of a ledge surveyed at 60°07'03.06"N, 147°24'13.81"W (477554.9E, 6664567.4N, Fix 50894). The Hydrographer recommends deleting this rock from both charts and charting the ledge.[38]

A charted rock (16701) in position 60°05'59.65"N, 147°26'00.75"W (475886.3E, 6662620.9N) was found to be the seaward-most extension of a ledge. The Hydrographer recommends removing the rock from chart 16701 and charting the ledge.[39]

The Hydrographer recommends that the shoreline as depicted on the DP and BS plot and final sounding plot supersede and complement shoreline information compiled on the T-sheets as noted.[40] These

revisions are recorded in the MapInfo digital files named "H11003_Shoreline" and "H11003_ShorelineUpdates". In addition, field notes made by the Hydrographer, including verification of source features and descriptions of shoreline classification, are submitted in the digital MapInfo file "H11003_ShorelineNotes."

D.4 Dangers to Navigation

Eighteen dangers to navigation were found and reported to the Pacific Hydrographic Branch/U.S. Coast Guard for verification and submission to the U.S. Coast Guard. A copy of the Danger to Navigation Report is included in Appendix I.[41] The final report will be inserted by the Pacific Hydrographic Branch (PHB) following verification and submission to the U.S. Coast Guard.[42]

D.5 Aids to Navigation

There were no aids to navigation within the limits of survey H11003.[43]

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; the Hydrographic Survey Guidelines; the Field Procedures Manual, and the NOS Hydrographic Surveys Specifications and Deliverables, as updated for 2000.

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 H11003 is complete and adequate to supersede charted soundings and features in their common areas. There is no additional work required on this survey.[44]

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

Title	Date Sent	Office
Data Acquisition and Processing Report for OPR-P139-RA-00	November 25, 2000	N/CS34
Horizontal and Vertical Control Report for OPR-P139-RA-00	TBD	N/CS34
Tides and Water Levels Package for OPR-P139-RA-00	November 27, 2000	N/OPS1
Coast Pilot Report for OPR-P139-RA-00	TBD	N/CS26

Approved and Forwarded: Daniel R. Herlihy

Daniel R. Herlihy
Commander, NOAA
Commanding Officer

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

Survey Sheet Manager: E. J. Van Den Ameele for

Lisa N. Cooper
Ensign, NOAA

Field Operations Officer: E. J. Van Den Ameele

Edward J. Van Den Ameele
Lieutenant, NOAA

Revisions Compiled During Office Processing and Certification

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[1] PHB Revision -- Strikethrough ~~-00~~
[2] PHB Revision -- Strikethrough ~~-00~~
[3] PHB Revision -- Revise GP to 60°09'30"N
[4] PHB Revision -- Revise GP to 60°04'07"N
[5] PHB Revision -- Revise GP to 147°30'23"W
[6] PHB Revision -- Strikethrough ~~longitude 147°22'24.26"W~~ and replace with the western shoreline of Montague Island.
[7] PHB Revision -- Strikethrough ~~3~~ and replace with 2.
[8] Concur
[9] The junction with survey H10940 was not formally completed since this survey was processed previously. However, depths are in good agreement. An "Adjoins" note has been added to the smooth sheet. The junctions with surveys H1001, H11002, and H11004 are complete. A "Joins" note has been added to the smooth sheet where applicable. A few soundings from the junctional surveys have been transferred within the common areas of H11003 to better delineate the bottom configuration.
[10] PHB Revision -- Revise to West
[11] PHB Revision -- Add H10940 1:10,000 1999 Northwest
[12] Concur
[13] Shown on SS
[14] Approved tide note dated February13, 2001 is attached.
[15] The present survey was compared to the following prior surveys.

Survey	Year	Scale	Datum
H5427	1933	1:20,000	Valdez
H5427	1933	1:20,000	Valdez
H9512	1975	1:20,000	NAD27

Prior surveys H5427 and H5428 were conducted using early echo sounder technology, leadlines, and visual positioning. Present survey depths reflect a consistent shoal bias of 1-3 fathoms. These depth differences can be attributed to present state-of-the-art in positioning, sounding, and data acquisition techniques. H9512 is listed as a Category 1 Hydrographic Data Evaluation Group (HDEG) survey in a memo dated September 10, 1990 and has not received final processing. The present survey depths reflect a consistent shoal bias of 0.5-1 fathom with the 1975 survey work. The present survey is adequate to supersede all prior surveys within the common area.
[16] PHB Revision -- Strikethrough ~~Appendix VI of~~
[17] PHB Revision -- Revise to westsouthwest
[18] PHB Revision -- Add 100 meters north
[19] Filed with the hydrographic data
[20] PHB Revision -- Strikethrough ~~Three 20-fathoms peak were located nearby~~ and replace with A least depth of 20.2 fathoms is 150 meters north of the charted depth
[21] PHB Revision -- Revise depth to 18.0 fathoms
[22] PHB Revision -- Strikethrough ~~220~~ and replace with 180
[23] PHB Revision -- Strikethrough ~~200~~ and replace with 220
[24] PHB Revision -- Insert and 190 meters to the northnorthwest

[25] PHB Revision -- Insert to 44
[26] PHB Revision -- Insert to 56
[27] Concur
[28] Filed with the hydrographic data
[29] Filed with the hydrographic data
[30] Shown on SS at latitude 60˚08’49.0”N, longitude 147˚23’12.0”W
[31] Concur
[32] Concur
[33] Concur
[34] Concur
[35] Concur
[36] Concur
[37] Concur
[38] Concur
[39] Concur
[40] Concur
[41] Filed with the hydrographic data
[42] Copy attached
[43] Concur
[44] Concur

REPORT OF DANGERS TO NAVIGATION

ADVANCE INFORMATION

Hydrographic Survey Registry Number: H11003

Survey Title: State: Alaska

Locality: Prince William Sound

Sub-locality: West Coast of Montague Island, 8 Miles South of Green Island

Project Number: OPR-P139-RA-00

Survey Dates: September - October 2000

Depths are reduced to Mean Lower Low Water using unverified observed tides.

Positions are based on the NAD83 horizontal datum.

CHARTS AFFECTED:

CHART	EDITION	DATE	SCALE
16701	17th	7/25/1998	1:81,436
16700	26th	9/19/1998	1:200,000

DANGERS:

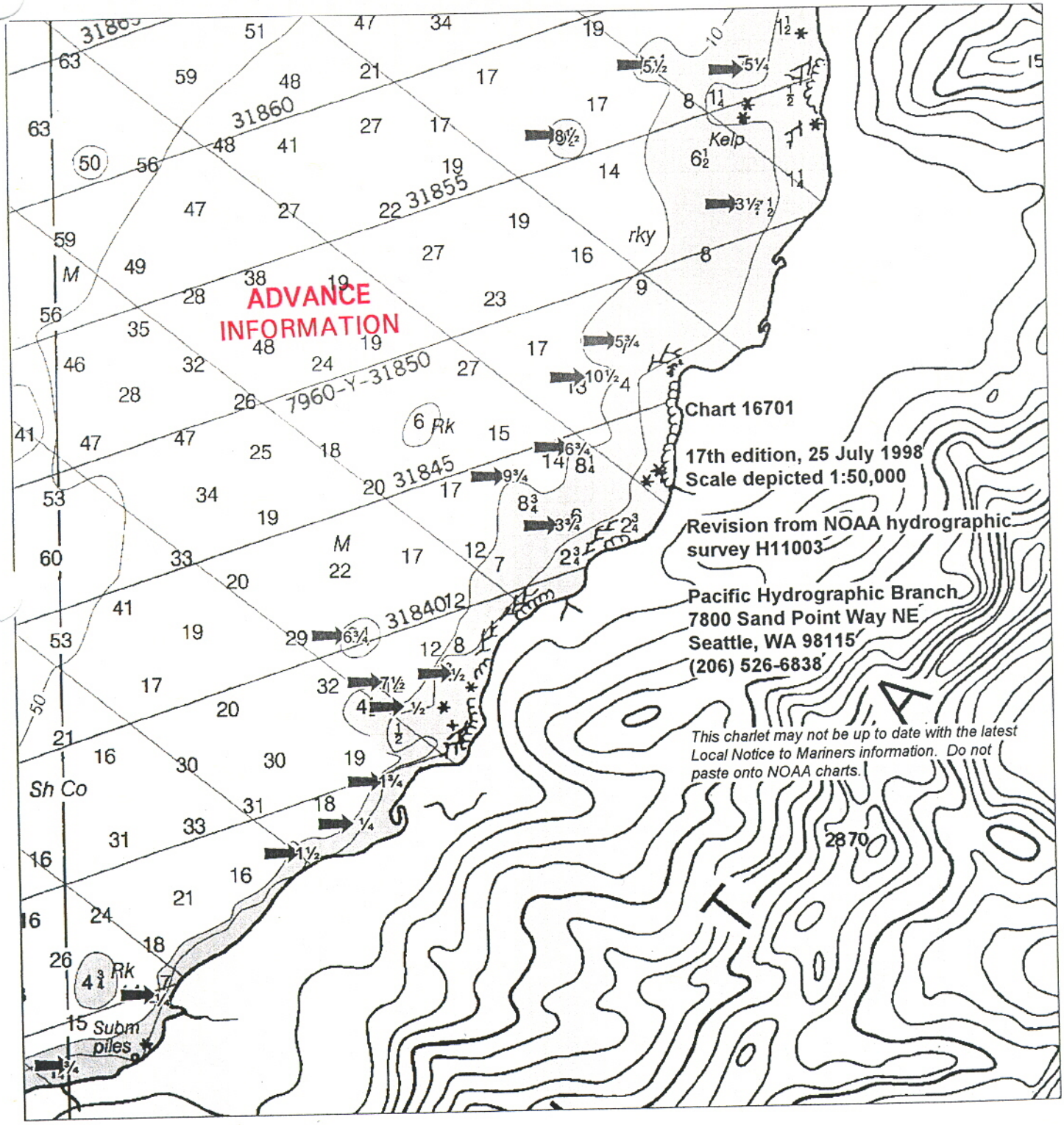
FEATURE	DEPTH (fathoms)	LATITUDE(N)	LONGITUDE(W)
Sounding	-¼	60° 04' 30.503" N	147° 29' 09.665" W
Sounding	¼	60° 05' 20.805" N	147° 27' 07.488" W
Sounding	½	60° 05' 54.558" N	147° 26' 36.120" W
Sounding	½	60° 06' 04.174" N	147° 26' 12.179" W
Sounding	¾	60° 04' 11.373" N	147° 30' 02.337" W
Sounding	1½	60° 05' 12.620" N	147° 27' 42.153" W
Sounding	1¾	60° 05' 33.354" N	147° 26' 52.922" W
Sounding	3½	60° 08' 20.098" N	147° 23' 18.928" W
Sounding	3¾	60° 06' 47.284" N	147° 25' 06.865" W
Sounding	5¼	60° 09' 00.894" N	147° 23' 12.712" W
Sounding	5½	60° 09' 00.918" N	147° 24' 11.785" W
Sounding	5¾	60° 07' 40.730" N	147° 24' 30.773" W
Sounding	6¾	60° 06' 15.769" N	147° 27' 11.731" W
Sounding	6¾	60° 07' 09.444" N	147° 25' 00.254" W
Sounding	7½	60° 06' 02.006" N	147° 26' 50.579" W
Sounding	8½	60° 08' 41.021" N	147° 25' 03.480" W
Sounding	9¾	60° 07' 01.917" N	147° 25' 36.405" W
Sounding	10½	60° 07' 30.751" N	147° 24' 44.236" W

COMMENTS:

To view chartlet click here

Questions concerning this report should be directed to the Pacific Hydrographic Branch (N/CS34) at (206) 526-6836.

Compiled by NOAA Ship RAINIER August 28, 2001; Checked by PHB 2/20/01 *file:\H11003dton.wpd*


ADVANCE
INFORMATION
31860
31855
7960-Y-31850
31845
3184012
Kelp
rky
Rk
Sh Co
Subm piles
2870
Chart 16701
17th edition, 25 July 1998
Scale depicted 1:50,000
Revision from NOAA hydrographic survey H11003
Pacific Hydrographic Branch
7800 Sand Point Way NE
Seattle, WA 98115
(206) 526-6838
This charlet may not be up to date with the latest Local Notice to Mariners information. Do not paste onto NOAA charts.

RECRD	52497	VESSLTERMS	OBSTRUCTION	CHART	16701	AREA	P
		CARTOCODE	0067	SNDINGCODE		DEPTH	

LAT83	60 04 14.79	LONG83	147 29 20.63	NATIVDATUM	0
LATDEC:	60.070775	LONDEC:	147.48906388889	GPQUALITY	High
				GPSOURCE	Scaled

PROJECT	OPR-P139-00	ITEMSTATUS	Assigned	SEARCHTYPE	Full
RADIUS	100	INIT	MCR	ASSIGNED	7/15/1999
TECNIQ	VS,ES				

Techniqnote

History

HISTORY
H-9512/75--SP-PMC-4-DA-75; RUINS, OLD PILING. ENTERED 7/99 MCR

Fieldnote

INVESTIGATION

DATE(S):08/14/00 (DN:258)

POSITION NUMBERS: 20924

INVESTIGATION USED: ECHO SOUNDER, VISUAL SEARCH

SURVEYED POSITION: LAT. 60/04/11.589 N LON. 147/29/42.917 W

POSITION DETERMINED BY: DIFFERENTIAL GPS

INVESTIGATION SUMMARY: Piles found in above location very close to shore during shoreline verification.

CHARTING RECOMMENDATION (HYDROGRAPHER) Chart piles in new location as depicted on DP Plot.

EVALUATOR COMMENTS: Chart piles as shown on the smooth sheet.

Proprietar

YEARSUNK NIMANUM

Print Record

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: February 13, 2001

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-P139-RA-2000
HYDROGRAPHIC SHEET: H-11003

LOCALITY: Prince William Sound, AK
TIME PERIOD: September 13 - October 18, 2000

TIDE STATION USED: 945-4561 Perch Point, AK
Lat. 60° 7.6'N Lon. 147° 23.7'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.254 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: PWS23 & PWS39.

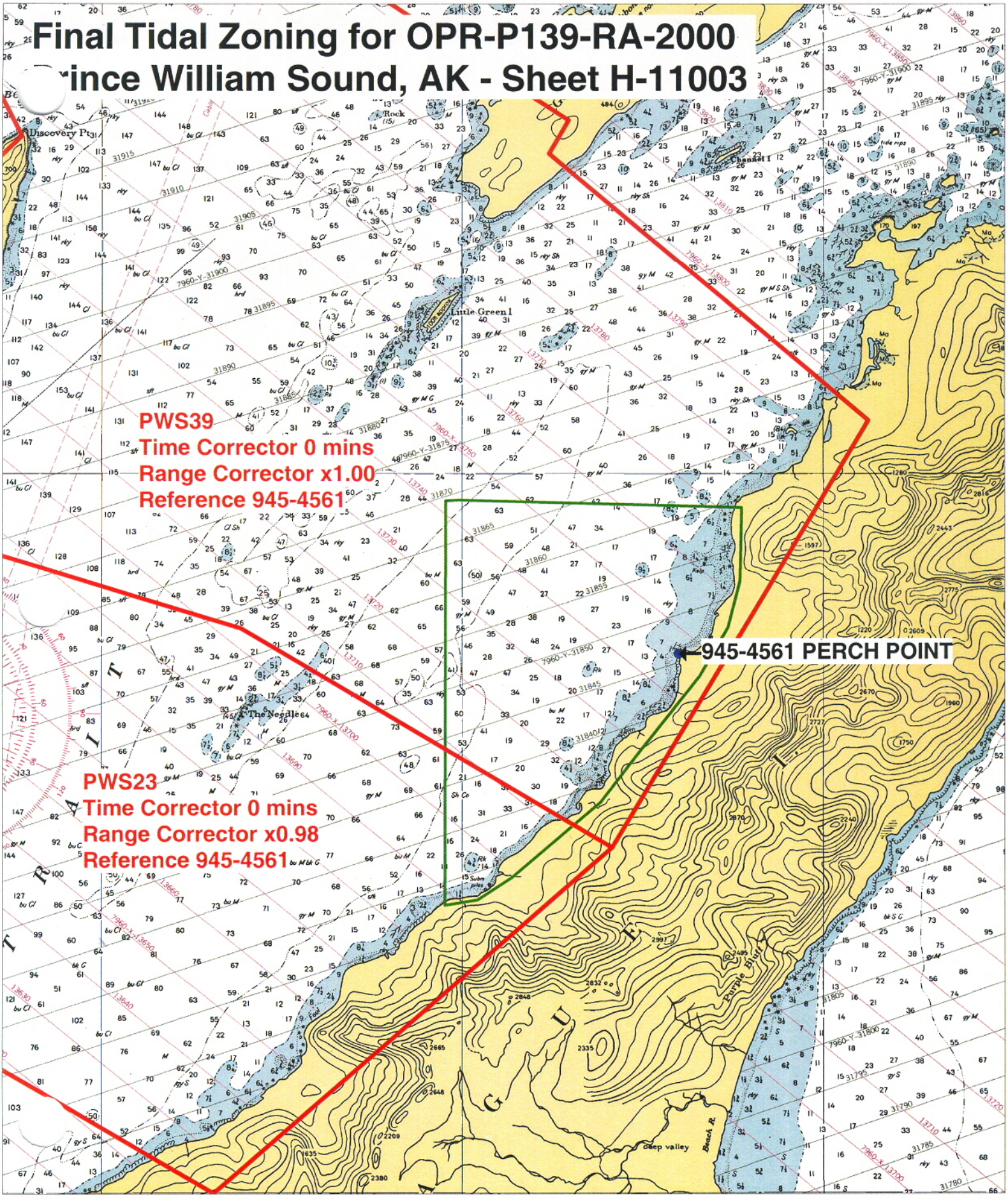
Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time.

Thomas R. Meo 2/13/01

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION

Final Tidal Zoning for OPR-P139-RA-2000
Prince William Sound, AK - Sheet H-11003



Final tide zone node point locations for OPR-P139-RA-2000,
Sheet H-11003.

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

	Tide Station Order	AVG Time Correction	Range Correction
Zone PWS23			
-147.430708 60.080034	945-4561	0	0.98
-147.614981 59.99982			
-147.833691 60.063871			
-147.909718 60.046036			
-147.976527 60.06845			
-147.996234 60.084179			
-147.915026 60.129755			
-147.767908 60.155922			
-147.602299 60.130868			
-147.430708 60.080034			
Zone PWS39			
-147.703642 60.244653	945-4561	0	1.00
-147.738627 60.227865			
-147.804771 60.1946			
-147.781996 60.187238			
-147.767908 60.155922			
-147.602299 60.130868			
-147.430708 60.080034			
-147.312699 60.178864			
-147.459741 60.240591			
-147.450789 60.248219			
-147.669435 60.31933			
-147.73888 60.284518			
-147.726093 60.266771			
-147.703642 60.244653			

NOAA FORM 77-27(H)
(9-83)

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER
H-11003

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	NA
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	NA

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES	1					
ENVELOPES						
VOLUMES						
CAHIERS						
BOXES						

SHORELINE DATA

SHORELINE MAPS (List):

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List):

OFFICE PROCESSING ACTIVITIES

The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	*EVALUATION*	*TOTALS*
POSITIONS ON SHEET			
POSITIONS REVISED			
SOUNDINGS REVISED			
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS			
VERIFICATION OF SOUNDINGS			
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET			91
COMPARISON WITH PRIOR SURVEYS AND CHARTS			
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT			30
GEOGRAPHIC NAMES			
OTHER* (Chart Compilation)			24
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS			145

Pre-processing Examination by	*Beginning Date* 03/06/2001	*Ending Date*
Verification of Field Data by R. Mayor, R. Davies, E. Domingo, L. Deodato	*Time (Hours)* 91	*Ending Date*
Verification Check by	*Time (Hours)*	*Ending Date*
Evaluation and Analysis by L. Deodato	*Time (Hours)* 30	*Ending Date* 08/13/2002
Inspection by R. Davies	*Time (Hours)* 7	*Ending Date* 11/18/2003

U.S. GOVT. PRINTING OFFICE 1983: 764-008/6061

APPROVAL SHEET
H11003 Dev 4/21/4

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.

for Russ Davis Date: 11-18-03
Dennis Hill
Chief, 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.

Date: Nov 21, 2007
John E. Lowell, Jr.
Commander, NOAA
Chief, Pacific Hydrographic Branch

AWOIS / SUDF
2/23/04 MCR

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-11003

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
16701	2/26/02	[illegible]	Full ~~Part~~ Before After Marine Center Approval Signed Via Full application of
			Drawing No. soundings and features from smooth sheet.
			Full ~~Part~~ Before After Marine Center Approval Signed Via Full application of
16701	4/13/04	[illegible]	Drawing No. soundings and features from smooth sheet.
		Rev T. Alexander 4/14/04	
16700	4/13/01	[illegible]	Full ~~Part~~ Before After Marine Center Approval Signed Via Full application of
		Rev T. Alexander 4/14/04	Drawing No. soundings and features through overlap of
			chart 16701 ED 19.
			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
			Drawing No.
			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
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.