

H11049

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-10-08-01

Registry No. H-11049

LOCALITY

State Alaska

General Locality Zimovia Strait

Sublocality Nemo Point and Vicinity

2001

CHIEF OF PARTY

..... Commander D.R. Herlihy, NOAA

LIBRARY & ARCHIVES

DATE

HYDROGRAPHIC TITLE SHEET

H11049

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-10-08-01

State AlaskaGeneral Locality Zimovia StraitSublocality Nemo Point and VicinityScale 1:10,000Date of Survey April 11-May 3, 2001Instructions Dated March 23, 2001Project No. OPR-O327-RAChange No.1 dated May 1, 2001Vessel 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, NOAASurveyed by Ship personnel and physical scientist from Atlantic Hydrographic Branch

Soundings taken by echo sounder, hand lead, pole

Knudsen 320M, Reson 8101, Seabeam 1180Graphic record scaled by Ship personnelGraphic record checked by Ship personnelEvaluation by L. DeodatoAutomated plot by HP DesignJet 1050CVerification by E. Domingo, R. Mayor, R. Davies, L. DeodatoSoundings in Fathoms and tenths

at

MLLWREMARKS: Time in UTC.Revisions and annotations appearing as endnotes were generatedduring office processing..All depths listed in this report are referenced tomean lower low water unless otherwise noted.

Progress Sketch

OPR-O327-RA
 Northern Clarence Strait and
 Zimovia Strait, Alaska

May 2001

Chart 17360

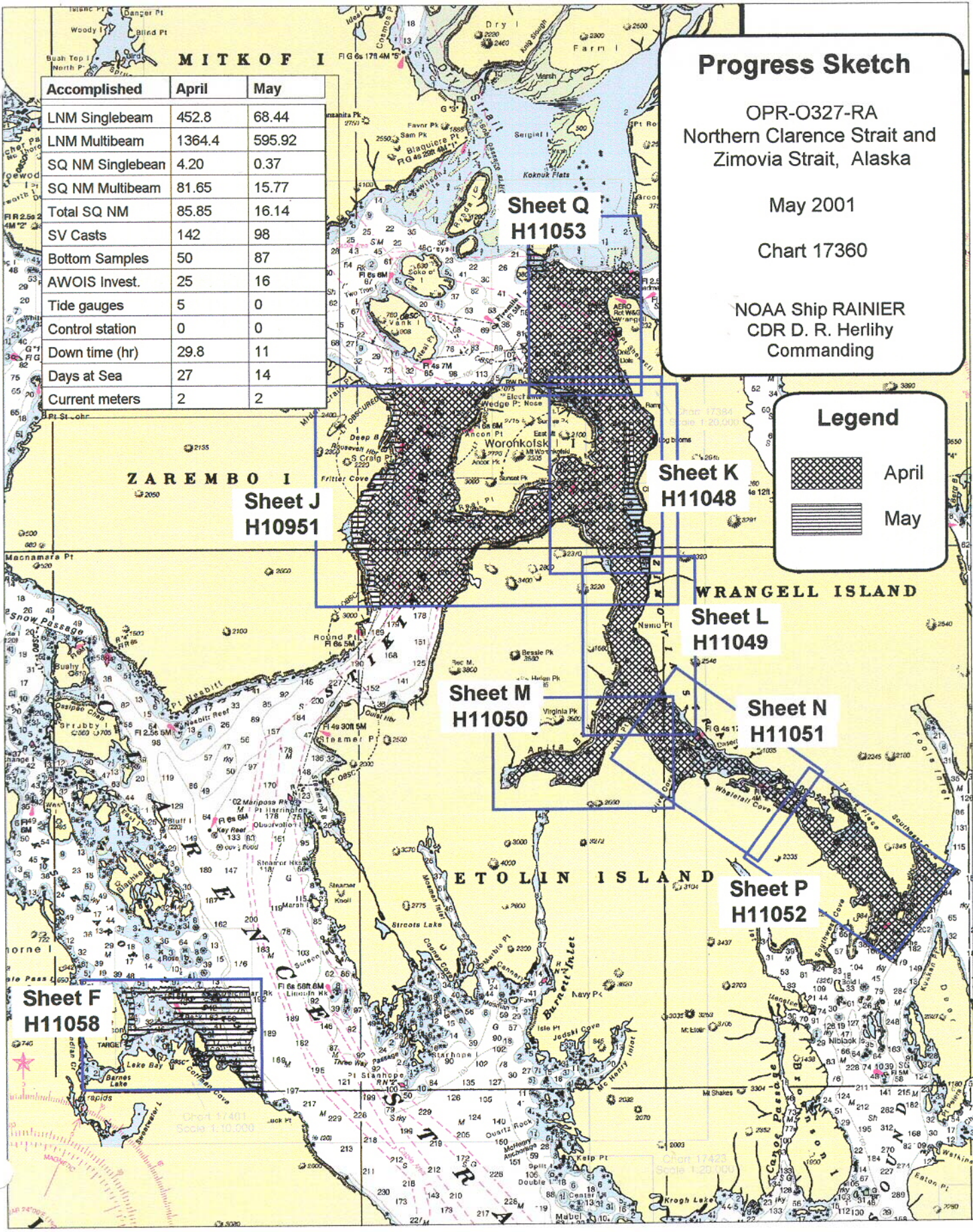
NOAA Ship RAINIER
 CDR D. R. Herlihy
 Commanding

Accomplished	April	May
LNM Singlebeam	452.8	68.44
LNM Multibeam	1364.4	595.92
SQ NM Singlebeam	4.20	0.37
SQ NM Multibeam	81.65	15.77
Total SQ NM	85.85	16.14
SV Casts	142	98
Bottom Samples	50	87
AWOIS Invest.	25	16
Tide gauges	5	0
Control station	0	0
Down time (hr)	29.8	11
Days at Sea	27	14
Current meters	2	2

Legend

 April

 May



MITKOF I

ZAREMBO I

WRANGELL ISLAND

ETOLIN ISLAND

Sheet J
H10951

Sheet Q
H11053

Sheet K
H11048

Sheet L
H11049

Sheet M
H11050

Sheet N
H11051

Sheet P
H11052

Sheet F
H11058

Chart 17401
Scale 1:10,000

Chart 17423
Scale 1:20,000

Descriptive Report to Accompany Hydrographic Survey H11049

Project OPR-O327-RA-01¹

Northern Clarence Strait and Zimovia Strait, Alaska

Scale 1:10,000

April-May 2001

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-O327-RA-01², dated March 23, 2001³, and the Draft Standing Project Instructions dated April 6, 1998. The purpose of this project is to provide contemporary hydrography with full-bottom multibeam coverage in Northern Clarence Strait and Zimovia Strait, Alaska. The project addresses inadequate chart data and responds to requests from the U.S. Coast Guard Seventeenth District, Southeast Alaska Pilots Association, and the Alaska Coastwise Pilots Association for contemporary hydrography in the vicinity of Zimovia Strait. Zimovia Strait is a connecting corridor for cruise ships and other commercial shipping traffic in Southeast Alaska, and serves as an alternate route for vessel thoroughfare through Snow Passage.

The survey area is located in Zimovia Strait from Anita Point to two nautical miles north of Nemo Point. The survey's northern limit is latitude 56°19'01"N⁴ and the southern limit is latitude 56°13'06"N. The survey's western limit is longitude 132°24'30.9"W⁵ and the eastern limit is longitude 132°19'23.4"W⁶.

One hundred percent shallow-water multibeam (SWMB) coverage was obtained in the survey area in waters 10 meters and deeper. In waters from 4 meters to 10 meters, SWMB data were obtained at 25-meter line spacing, and in these areas additional coverage was collected to obtain least depths over features or shoals. Vertical-beam echo sounder data were acquired in depths from 4 to 25 meters in select areas, at a line spacing of 100 meters, to define the four-meter curve and to aid in the planning of SWMB data acquisition.⁷

Data acquisition was conducted from April 12⁸ to May 3, 2001 (DN 102 to 123).

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-O327-RA-01 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 (SWMB) soundings and sound velocity profiles. Vessels 2122 and 2125 were used to acquire vertical-beam echo soundings (VBES) and detached positions (DPs) for shoreline verification. Vessel 2125 was also used to collect bottom samples. Vessel 2127 was used to acquire DPs for shoreline verification. No unusual vessel configurations or problems were encountered during this survey.

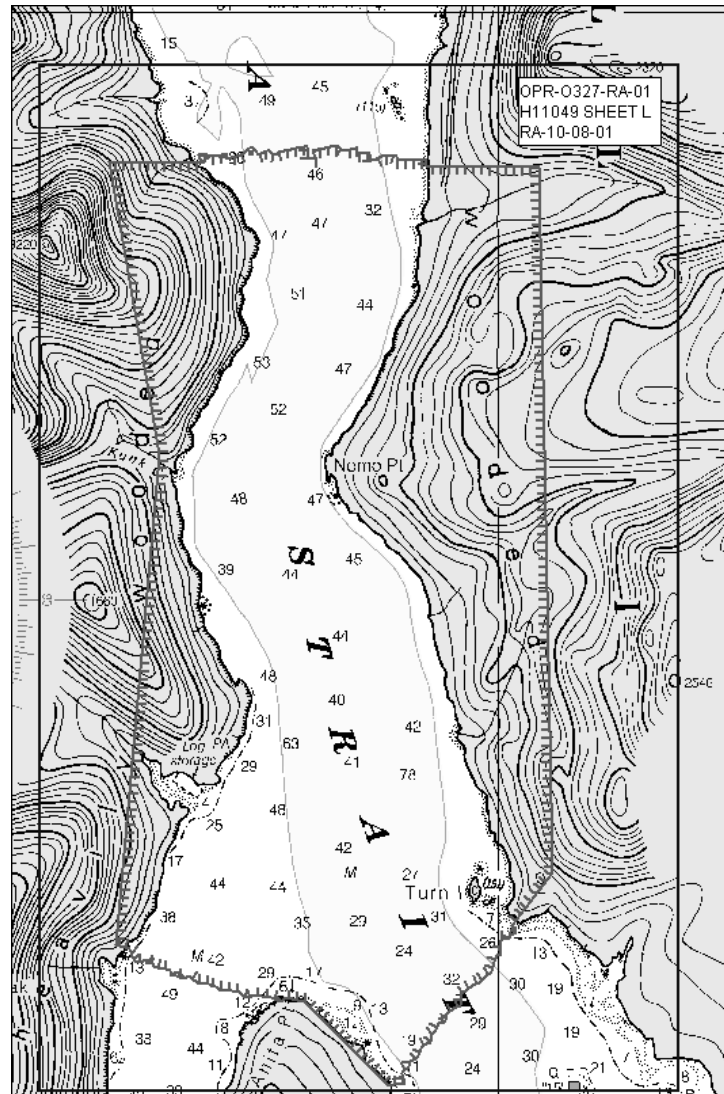


Figure 1. H11049 Survey Limit

B2. Quality Control

Crosslines

Vertical Beam Echo Sounder (VBES) crosslines totaled 1.6 nautical miles, comprising 14.0% of mainscheme hydrography. Crosslines generally agreed within one meter of mainscheme hydrography.⁹

Shallow-Water Multibeam (SWMB) crosslines totaled 11.4 nautical miles, comprising 8.2 % of SWMB hydrography. The Quality Control Report (CARIS HIPS) for the checkline file averaged 90.285%, with a depth tolerance factor of 0.013, which conforms to International Hydrographic Organization Order 1 specifications detailed in Special Publication S-44, Edition 4, as well as NOS Hydrographic Surveys Specifications and Deliverables Manual. See Appendix V¹⁰ for the detailed report.

Junctions¹¹

The following contemporary survey junctions with H11049:

Registry #	Scale	Date	Junction side
H11050	1:10,000	2001	Southwest
H11051	1:10,000	2001	Southeast
H11048	1:10,000	2001	North

Survey H11049 junctions well with these surveys, with differences generally less than one fathom.¹²

Final comparisons will be made at the Pacific Hydrographic Branch (PHB) after the application of smooth tides.¹³

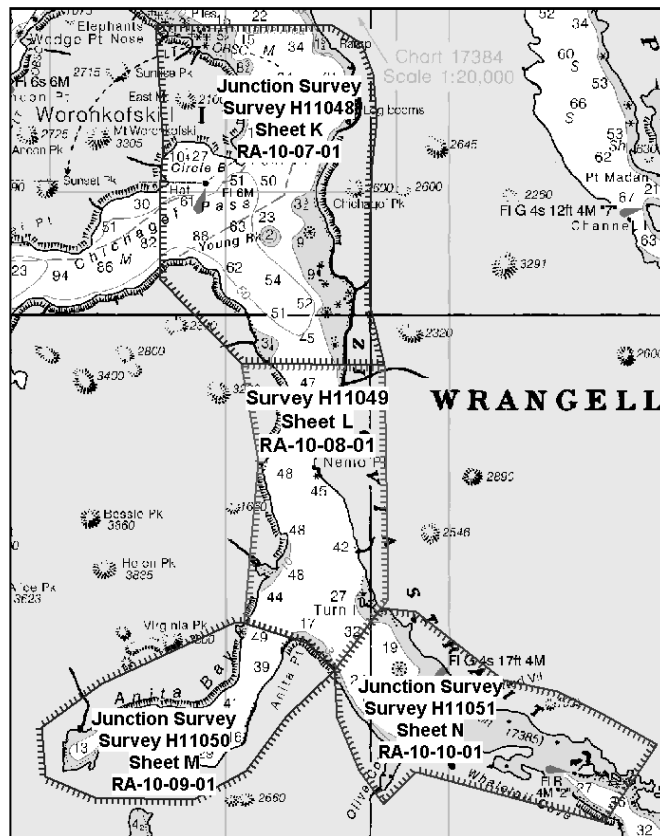


Figure 2. H11049 Junction Surveys

Data Quality Factors

No unusual conditions were encountered during the survey that affected the expected accuracy and quality of survey data.¹⁴

B3. Data Reduction

Data reduction procedures for survey H11049 conform to those detailed in the *OPR-O327-RA-01 Data Acquisition and Processing Report*.

C. VERTICAL AND HORIZONTAL CONTROL

A complete description of vertical and horizontal control for survey H11049 can be found in the *OPR-O327-RA-01 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. Differential corrections from U.S. Coast Guard beacons at Annette Island (323 kHz) and Point Gustavus (288 kHz) were utilized during this survey. 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-O327-RA-01 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 Ketchikan, AK (945-0460) will serve as control for datum determination, and as the primary source for water level reducers for survey H11049. RAINIER personnel installed Sutron 8210 “bubbler” tide gauges at the following subordinate stations in accordance with the Project Instructions:

Station Name	Station Number	Type of Gauge	Date of Installation	Date of Removal
Entrance to Zimovia Strait	945-0970	30-day	April 6, 2001	May 12, 2001
Village Rock	945-1037	30-day	April 6, 2001	May 16, 2001
Wrangell Harbor	945-1204	30-day	April 7, 2001	May 16, 2001

The station at Village Rock (945-1037) was occupied in lieu of the station at Olive Cove (945-1015) as required by the Letter Instructions, after consultation with N/OPS1. The new station was occupied after several unsuccessful attempts to contact the property owner at Olive Cove.

The Pacific Hydrographic Branch will apply final approved (smooth) tides to the survey data during final processing.¹⁵ A request for delivery of final approved (smooth) tides for survey H11049 was forwarded to N/OPS1 on May 25, 2001 in accordance with FPM 4.8.¹⁶

D. RESULTS AND RECOMMENDATIONS¹⁷

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

One AWOIS item was located within the limits of H11049 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. Printouts of the AWOIS Database forms are included in Appendix VI¹⁸ of this report.¹⁹

D.2 Chart Comparison

Survey H11049 was compared with chart 17360 (31st Ed.; March 27, 1999 1:217,828), chart 17382 (14th Ed.; April 26, 1997, 1:80,000), and chart 17385 (13th Ed., July 24th 1993, 1:80,000).²⁰

Depths from survey H11049 were generally one to three fathoms²¹ deeper than depths on charts 17382 and 17385. Notable differences are addressed below.²²

In the vicinity of a charted 32-fathom sounding at 56°18'43.400"N, 132°21'26.690" W (663,459.407E, 6,243,948.816N), the present survey revealed depths of 35 to 45²³ fathoms. This area is on a steep slope and was covered by 100% SWMB.

In the vicinity of a charted 39-fathom sounding at 56°16'25.200"N, 132°23'08.990"W (661,864.363E, 6,239,610.619N), the present survey revealed depths of 47 to 48²⁴ fathoms. This area was covered by 100% SWMB.

In the vicinity of a charted 63-fathom sounding at 56°15'17.900"N, 132°22'23.590"W (662,724.364E, 6,237,560.441N), the present survey revealed depths of 43 to ²⁵58 fathoms. This area was covered with 100% SWMB.

In the vicinity of a charted 78-fathom sounding at 56°15'10.180"N, 132°21'00.100"W (664,125.089E, 6,237,245.798N), the present survey revealed depths of 32 to 40²⁶ fathoms. This area was covered by 100% SWMB.

Depths from survey H11049 generally agreed with depths from chart 17360 within one to three fathoms.²⁷

Final sounding comparisons will be made at the Pacific Hydrographic Branch after the application of smooth tides.²⁸

D.3 Shoreline

Method of Shoreline Verification

N/NGS3 supplied photogrammetric shoreline data in vector format as Cartographic Feature Files (CFF) from project AK-9702D. The CFF vector shoreline data were converted for use in HYPACK for field verification and were used as the primary shoreline source. At the time of the survey, N/NGS3 had not completed processing of AK-9702D, and the data provided to RAINIER were considered preliminary for this project. In the area encompassed by AK-9702D, in and around Zimovia Strait, only low water features were included in the CFF, with a few exceptions in which the high-water line was depicted. When not available on the CFF, the high water line (HWL) and high water features were digitized by RAINIER personnel from the applicable T-Sheets or TP-Sheets, where available, or from the largest scale chart when no other shoreline source document was available. In the area encompassed by AK-9702D, features depicted on the T-Sheets and TP-Sheets not depicted in the CFF were also digitized and displayed in HYPACK for field verification. In addition, features shown on the current editions of charts 17382 and 17385 that were not depicted on any shoreline source document were digitized in MapInfo by RAINIER personnel and displayed in HYPACK for field verification. In instances in which charted features were digitized, RAINIER personnel attempted to identify the source of the feature by reviewing prior surveys, although in many instances the quality of the prior surveys images was poor, and RAINIER was unable to register them in MapInfo. RAINIER recommends that if processing of AK-9702-D is

complete at the time of office review, that the Pacific Hydrographic Branch (PHB) incorporate the final processed CFF into the smooth sheet and compare it with field work conducted by RAINIER.²⁹

Shoreline verification was conducted near predicted low water in accordance with the Standing Project Instructions and FPM 6.1 and 6.2. For this survey the general limit of safe navigation of a survey launch was five to forty meters offshore of the apparent mean lower-water line. Water depths along this limit of safe navigation were approximately four meters at Mean Lower-Low Water (MLLW). Features inshore of this limit, unreachable by survey launch, are depicted on the Detached Position and Bottom Sample Plot³⁰ as the Hydrographer's approximate representation of the shoreline.³¹

Detached positions (DPs) taken during shoreline verification were recorded in HYPACK and on DP forms, and processed in HPS and Pydro. These indicate revisions to features, and features not found on the CFF, T-Sheet, or chart. 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 plot, in both paper copy and MapInfo format, is provided showing all detached positions and bottom samples with notes relating to each feature.³² The updated shoreline and features are also depicted on the final sounding plot. Verified CFF shoreline that did not require revision is in the MapInfo table "H11049_Shoreline", along with the MHW line from T-sheet where available and not provided in CFF. New features, changes to the shoreline, and features verified from applicable T-Sheets or TP-Sheets are depicted in the MapInfo table "H11049_Shoreline_Updates." Charted shoreline, when used for reference purposes or when source data were not available, is depicted in the MapInfo table "H11049_Charted_Shoreline".

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 and high water features, requiring little revision. In areas where the charted shoreline or T-sheet shoreline was seaward of CFF MLLW, the CFF MLLW was used for verification and MHW is not depicted on the DP and BS plot. In many cases the MLLW line on the CFF was found to be reefs or ledges, and the changes are reflected on the DP and BS Plots, and in the MapInfo table "H11049_Shoreline_Updates."³³

Source Shoreline Changes and New Features

The CFF reef at 56°14'30.5"N, 132°20'13.3"W and CFF rock at 56°14'29.6"N, 132°20'12.3"W were found to be one single reef. The photograph in Figure 3 depicts the reef with two high points connected at low water. The northern extent (Pos. # 70016; 56°14'31.490"N, 132°20'13.410"W; 665,019.507 E, 6,236,212.197 N), and southern extent (Pos. # 70015; 56°14'29.435"N, 132°20'11.885"W; 665,048.206 E, 6,236,149.704 N) of the reef have been revised. The Hydrographer recommends charting the CFF reef and CFF rock as one reef.³⁴

A new wreck, Pos. 52780, was located at 56°14'55.37"N, 132°23'42.90"W (661,386.3 E, 6,236,812.6 N). The wreck is on shore at high water.³⁵



Figure 3. Positions 70015 & 70016

Charted Features

The charted (17382) rock at Pos # 70026, 56°16'10.847"N, 132°23'26.393"W, (661,582.104E, 6,239,155.693N) was found to be the high point of the CFF ledge.³⁶ The charted (17385) rock at Pos # 70027, 56°16'09.609"N, 132°23'25.960"W, (661,591.001E, 6,239,117.715N) was found to be the southernmost extent of the CFF ledge.³⁷ The Hydrographer recommends charting the CFF ledge and removing the charted rocks.³⁸

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, T-Sheets, and charts as noted³⁹. These revisions are recorded in the MapInfo digital files named "H11049_Shoreline" and "H11049_Shoreline_Updates". 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 "H11049_Shoreline_Notes."⁴⁰

D.4 Dangers to Navigation

Four dangers to navigation were found during H11049 and reported to the Pacific Hydrographic Branch for verification and final submission to the Coast Guard Seventeenth District on May 22, 2001. A copy of the preliminary Danger to Navigation Report is included in Appendix I⁴¹. A copy of the final report will be inserted by PHB following verification and submission to the U.S Coast Guard.⁴²

D.5 Aids to Navigation

No aids to navigation (ATONs) exist within the limits of H11049⁴³

D.6 Miscellaneous

Bottom samples were collected and are depicted on the Detached Position and Bottom Sample Plot.⁴⁴

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 2001.

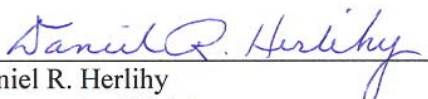
The digital data and supporting records have been reviewed by me, are considered complete and adequate for charting purposes, and are approved. All records are forwarded for final review and processing to N/CS34, Pacific Hydrographic Branch.

Survey H11049 is complete and adequate to supersede charted soundings⁴⁵ in their common areas. No additional work is required for this survey.⁴⁶

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-O327-RA-01	TBD	N/CS34
Horizontal and Vertical Control Report for OPR-O327-RA-01	TBD	N/CS34
Tides and Water Levels Package for OPR-O327-RA-01	TBD	N/OPS1
Coast Pilot Report for OPR-O327-RA-01	TBD	N/CS26

Approved and Forwarded:

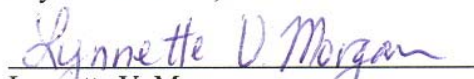

 Daniel R. Herlihy
 Commander, NOAA
 Commanding Officer

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


Survey Sheet Manager:


 Jennifer L. Werner
 Physical Scientist, NOAA

Assistant Survey Sheet Manager:


 Lynnette V. Morgan
 Survey Technician, NOAA

Field Operations Officer:


 Edward J. Van Den Ameerle
 Lieutenant, NOAA

Revisions Compiled During Office Processing and Certification

¹ Strikethrough ~~04~~

² Strikethrough ~~04~~

³ Change 1, dated May 1, 2001 also applies to this survey.

⁴ Revise GP to 56°19'08"N

⁵ Revise GP to 132°24'15"W

⁶ Revise GP to 132°19'50"W

⁷ Concur with hydrographer's statements.

⁸ April 11, 2001

⁹ Concur

¹⁰ Filed with the hydrographic data

¹¹ The junctions with surveys H11048, H11050, and H11051 are complete. "Joins" notes have been added to the smooth sheet and placed on Microstation levels 20, 22, and 23. These levels have been turned off for plotting purposes.

¹² Concur

¹³ Concur

¹⁴ Concur

¹⁵ Concur

¹⁶ Approved tide note dated August 31, 2001 is attached to this report.

¹⁷ The present survey was compared to the following prior surveys.

<u>Survey</u>	<u>Year</u>	<u>Scale</u>
H01742	1886	1:80,000
H04251	1922	1:20,000
H03909WD	1916	1:20,000

Prior surveys H01742 and H04251 were conducted using early echo sounder technology, leadlines, and visual positioning. Present survey depths reflect a consistent shoal bias of 1-2 fathoms. These depth differences can be attributed to present state-of-the-art in positioning, sounding, and data acquisition techniques. The present survey is adequate to supersede all prior surveys within the common area.

Prior wire drag survey H03909 covers the main navigable area along Zimovia Strait. There were no conflicts found between the present survey depths and the effective wire sweep depths of this prior survey. Adequate multibeam coverage of the area was accomplished during this survey to substantiate the supersession of the prior wire drag information within the common area and the removal of the wire drag green tint depicted on chart 17382.

¹⁸ Filed with the hydrographic data.

¹⁹ Copy attached

²⁰ Office comparison was made with the 15th Edition, March 1, 2003. Chart 17385 (1:80,000), was not used during office processing as it reflects the same depths and features as shown on 17382. Chart 17360 is the smallest scale chart covering the common area with the present survey and was not used.

²¹ Strikethrough ~~three fathoms~~ and replace with two fathoms shoaler

-
- ²² The areas discussed below should be charted based on the present survey information. The evaluator concurs that these areas were covered by 100% shallow water multibeam.
- ²³ ~~Strikethrough 35 to 45 and replace with 42-44~~
- ²⁴ Concur
- ²⁵ ~~Strikethrough 43 to~~
- ²⁶ ~~Strikethrough 32 to 40 and replace with 34 to 36~~
- ²⁷ Concur
- ²⁸ Concur
- ²⁹ Concur. GC-10943 was provided by the Remote Sensing Division to the Pacific Hydrographic Branch. This final shoreline map was compared to the field work and applied to the smooth sheet with consideration for shoreline verification data provided by the hydrographer. Except as noted above, comparison of the preliminary CFF vector shoreline data with GC-10943 during office processing revealed no significant differences.
- ³⁰ The detached position and bottom sample plot is filed with the hydrographic records.
- ³¹ Concur
- ³² Concur
- ³³ Concur with hydrographer's findings and graphic portrayal as discussed.
- ³⁴ Do not concur. The reef as shown on the smooth sheet should be charted as a rock based on chart scale.
- ³⁵ Concur. Chart visible wreck as found by the present survey.
- ³⁶ Concur
- ³⁷ Do not concur. The ledge delineated by the hydrographer actually extends over 150 meters south of the geographic position as listed.
- ³⁸ Do not concur. The evaluator recommends not showing the ledge as portrayed on the present survey based on chart scale.
- ³⁹ Concur. There were no mean high water revisions found by the hydrographer during shoreline verification.
- ⁴⁰ Shoreline verification and bottom sample information was analyzed during office processing and shown on the smooth sheet as warranted.
- ⁴¹ Filed with the hydrographic data
- ⁴² A copy compiled by the NOAA Ship Rainier and verified by the Pacific Hydrographic Branch dated May 20, 2001 is attached. Date of office review and transmittal to the USCG is April 28, 2004. The four dangers to navigation submitted by the field were not all compiled to the H-drawing based on chart scale and or shoaler selected depths from the smooth sheet.
- ⁴³ Concur
- ⁴⁴ Concur
- ⁴⁵ and features
- ⁴⁶ Concur

REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H11049

Survey Title: State: Alaska
Locality: Zimovia Strait
Sub-locality: Nemo Point and Vicinity
Project Number: OPR-O327-RA-01
Survey Dates: April - May 2001

**ADVANCE
INFORMATION**

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

CHARTS AFFECTED:

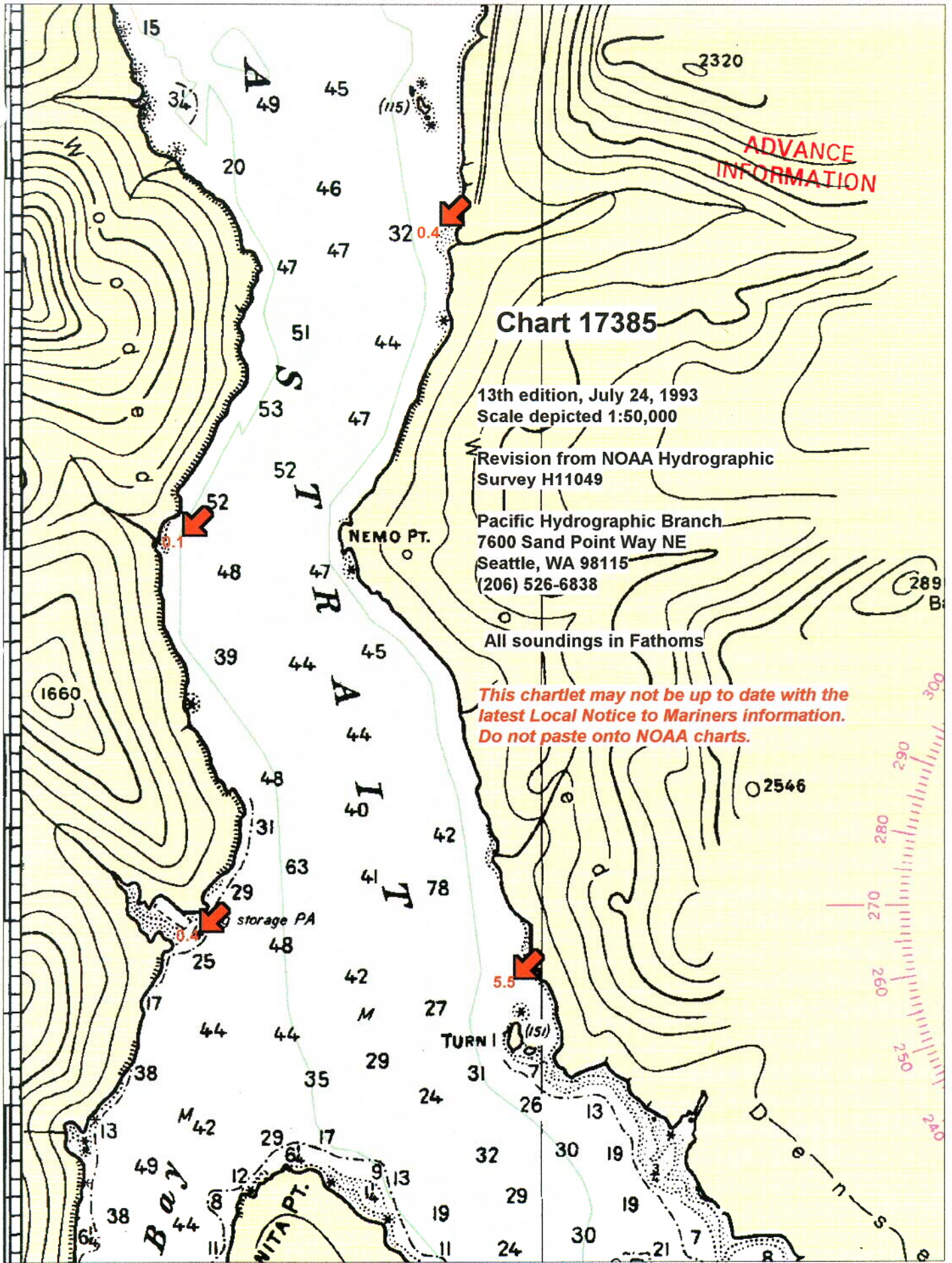
CHART	EDITION	DATE	SCALE
17382	14 th	April 26, 1997	1:80,000
17385	13th	July 24, 1993	1:80,00
17360	31st	March 27, 1999	1:217,828

DANGERS:

ITEM	DEPTH (FM)	LATITUDE	LONGITUDE
Sounding	5.5	56°14'39.493"N	132°20'21.084"W
Sounding	0.4	56°14'55.131"N	132°23'24.224"W
Sounding	0.1	56°17'02.224"N	132°23'34.123"W
Sounding	0.4	56°18'43.497"N	132°21'06.975"W

COMMENTS:

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



ADVANCE
INFORMATION

Chart 17385

13th edition, July 24, 1993
Scale depicted 1:50,000

Revision from NOAA Hydrographic
Survey H11049

Pacific Hydrographic Branch
7600 Sand Point Way NE
Seattle, WA 98115
(206) 526-6838

All soundings in Fathoms

*This chartlet may not be up to date with the
latest Local Notice to Mariners information.
Do not paste onto NOAA charts.*





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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: August 31, 2001

HYDROGRAPHIC BRANCH: Pacific
HYDROGRAPHIC PROJECT: OPR-0327-RA-2001
HYDROGRAPHIC SHEET: H11049

LOCALITY: Zimovia Strait, AK
TIME PERIOD: April 11 - May 3, 2001

TIDE STATION USED: 945-1037 Village Rock, AK
Lat. 56° 13.2'N Lon. 132° 17.8'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 4.650 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: SA124, SA125, SA126 & SA127.

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.

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



Final Tidal Zoning for OPR-O327-RA-2001 Zimovia Strait, AK - Sheet H11049

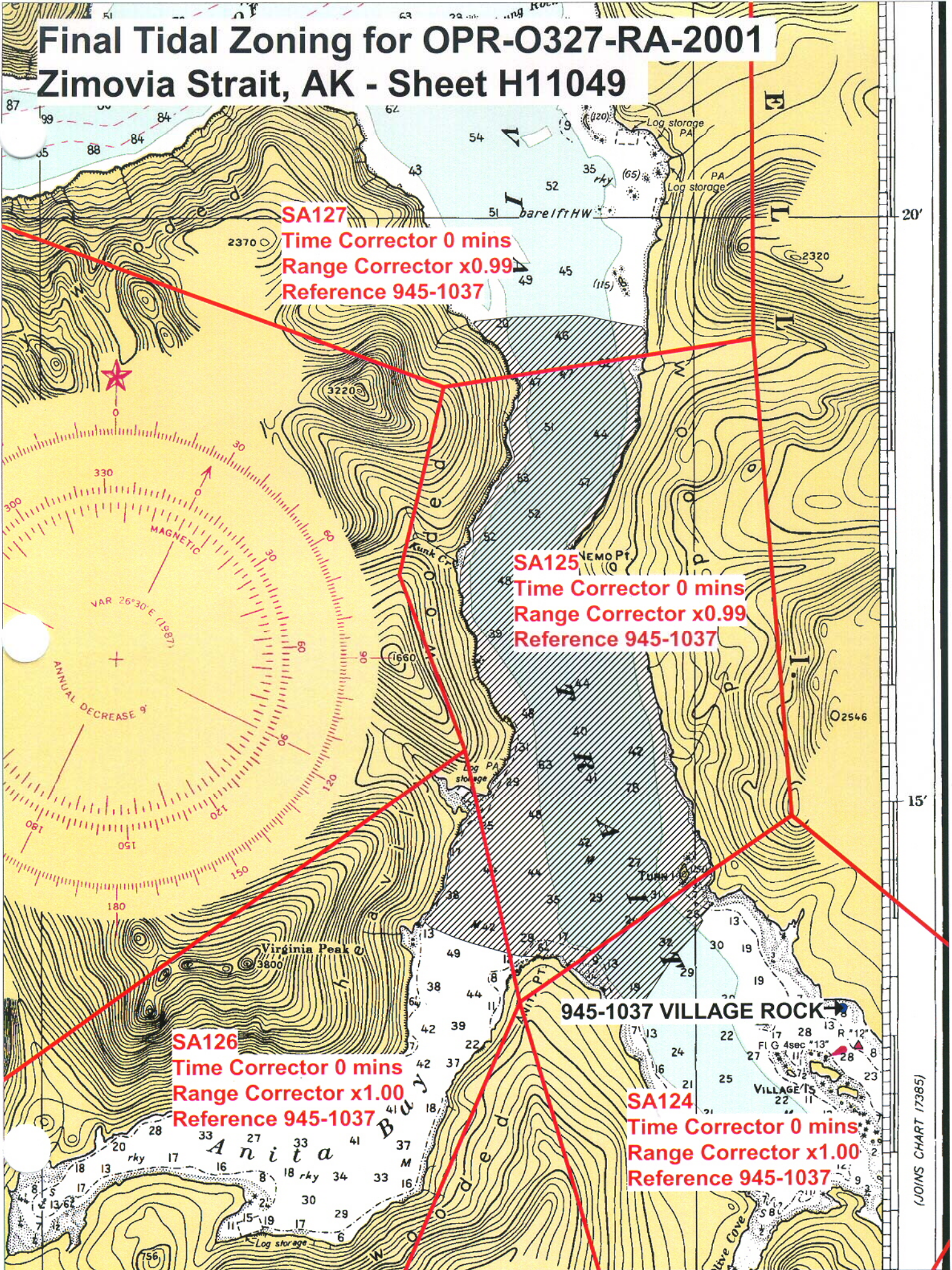
SA127
Time Corrector 0 mins
Range Corrector x0.99
Reference 945-1037

SA125
Time Corrector 0 mins
Range Corrector x0.99
Reference 945-1037

SA126
Time Corrector 0 mins
Range Corrector x1.00
Reference 945-1037

SA124
Time Corrector 0 mins
Range Corrector x1.00
Reference 945-1037

945-1037 VILLAGE ROCK



Final tide zone node point locations for OPR-O327-RA-2001,
 Sheet H11049.

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 SA124	945-1037	0	1.00
-132.238539 56.215427			
-132.30884 56.248083			
-132.37803 56.221639			
-132.352654 56.172776			
-132.281579 56.175165			
-132.238539 56.215427			
Zone SA125	945-1037	0	0.99
-132.30884 56.248083			
-132.318335 56.315999			
-132.397021 56.309213			
-132.408504 56.282559			
-132.391813 56.257555			
-132.37803 56.221639			
-132.30884 56.248083			
Zone SA126	945-1037	0	1.00
-132.37803 56.221639			
-132.407862 56.182904			
-132.52433 56.182899			
-132.52573 56.204464			
-132.391813 56.257555			
-132.37803 56.221639			
Zone SA127	945-1037	0	0.99
-132.318335 56.315999			
-132.319096 56.40582			
-132.386595 56.487683			
-132.493756 56.480754			
-132.49723 56.43585			

-132.542794 56.382698

-132.520515 56.33441

-132.397021 56.309213

-132.318335 56.315999

RECRD VESSLTERMS CHART AREA
CARTOCODE SENDINGCODE DEPTH

LAT83 LONG83 NATIVDATUM
LATDEC: LONDEC: GPQUALITY
GPSOURCE

PROJECT ITEMSTATUS SEARCHTYPE
RADIUS INIT ASSIGNED
TECNIQ

Techniqnote

Histor HISTORY
Charted log storage PA.
CL1822/76-- item #15, Proposed log storage area for Dog Salmon Creek. Application plans missing from scanned letter.
Approx. position scaled from kap chart 17385_1 in MapInfo at lat. 56-15-02N, lon. 132-23-35W. (Entered 03/09/2001 DAS)

Fieldnote INVESTIGATION
DATE(S): 5/01/01 (DN: 121)
HYDROGRAPHIC SURVEY NUMBER: H11049
VN: 2125 TIME: 17:27:52
INVESTIGATION METHODS USED: ES, VS at HW
SURVEYED POSITION: LAT. 56° 15' 03.101" N LON. 132° 23' 31.620" W
POSITION DETERMINED BY: DIFFERENTIAL GPS
INVESTIGATION SUMMARY: Ten minute VS conducted at HW with water visibility of 3 meters. ES conducted where water levels permitted. Log storage area or ruins not present during search.
CHARTING RECOMMENDATION (HYDROGRAPHER): The Hydrographer recommends removing charted log storage PA.
EVALUATOR COMMENTS: Concur

Proprietar

YEARSUNK NIMANUM

HYDROGRAPHIC SURVEY STATISTICS

H-11049

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

DESCRIP- TION	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

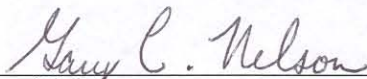
PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	EVALUATION	TOTALS
POSITIONS ON SHEET			
POSITIONS REVISED			
FINDINGS REVISED			
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	EVALUATION	TOTALS
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS			
VERIFICATION OF SOUNDINGS			
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION-VERIFICATION			
COMPILATION OF SMOOTH SHEET			149
COMPARISON WITH PRIOR SURVEYS AND CHARTS			
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT			15
GEOGRAPHIC NAMES			
OTHER (Chart Compilation)			18
USE OTHER SIDE OF FORM FOR REMARKS	TOTALS		182

Pre-processing Examination by	Beginning Date	11/21/2001	Ending Date
Verification of Field Data by Mayor, R. Davies, E. Domingo, L. Deodato	Time (Hours)	149	Ending Date
Application Check by	Time (Hours)		Ending Date
Evaluation and Analysis by L. Deodato	Time (Hours)	15	Ending Date 10/23/2003
Inspection by	Time (Hours)		Ending Date

APPROVAL SHEET
H11049

Initial Approvals:

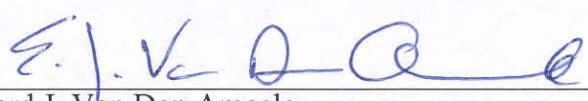
The survey and associated records have been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The survey records and digital data comply with NOS requirements except where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



Gary Nelson
Chief, Cartographic Team
Pacific Hydrographic Branch

Date: 3/25/2004

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.



Edward J. Van Den Ameerle
LT, NOAA
Chief, Pacific Hydrographic Branch

Date: 4/28/2004

AWOLS/ SURF
5/24/04
mLR

