

NOAA FORM 76-35A

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

## DESCRIPTIVE REPORT

**Type of Survey** Basic Hydrographic

*Field No.* .....

*Registry No.* H-11322

### LOCALITY

**State** Rhode Island

*General Locality* Buzzards Bay and Rhode Island Sound

*Sublocality* 5 NM SE of Point Judith

2004

**CHIEF OF PARTY**

LT Todd A Haupt, NOAA

### LIBRARY & ARCHIVES

**DATE** .....

## HYDROGRAPHIC TITLE SHEET

**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.

State RHODE ISLANDGeneral Locality BUZZARD'S BAY and RHODE ISLAND SOUNDSub-Locality 5 NM SE of POINT JUDITHScale 1:10000 Date of Survey JULY 6-16, 2004Instructions dated March 26, 2004 Project No. S-B912-RU-04Vessel NOAA Ship RUDE s590Chief of Party LT Todd A. Haupt, NOAASurveyed by LT Haupt, LT Zuzula, ENS Edrumsen, SST Kitt, ST Stephens, SST MooreSoundings by **echo sounder, hand lead, pole** ODOM Echotrak DF3200 MkII, Reson SeaBat 8125Graphic record scaled by RUDE PersonnelGraphic record checked by RUDE Personnel Automated Plot N/AVerification by Atlantic Hydrographic Branch PersonnelSoundings in **fathoms feet** at **MLW MLLW** Feet at MLLWREMARKS: All times are UTCSoundings have been corrected with verified tidesProjection in UTM zone 19

*Notes in red, bold, italic were added during office processing.*

**TABLE OF CONTENTS**

|  |    |
|--|----|
| <b>COVER SHEET</b>   | 1  |
| <b>TITLE SHEET</b>   | 2  |
| <b>TABLE OF CONTENTS</b>                                     | 3  |
| <b>A. AREA SURVEYED</b>                                      | 4  |
| Survey limit chartlet  | 5  |
| <b>B. DATA ACQUISITION AND PROCESSING</b>                    | 6  |
| <b>B.1 Equipment</b>   |    |
| <b>B.2 Quality Control</b>                                   |    |
| Side Scan Sonar Quality Control                              |    |
| Shallow Water Multibeam Quality Control                      | 7  |
| Crosslines   |    |
| Junctions  |    |
| <b>B.3 Corrections to Echo Soundings</b>                     |    |
| <b>C. VERTICAL AND HORIZONTAL CONTROL</b>                    | 8  |
| Vertical Control   |    |
| Horizontal Control   |    |
| <b>D. RESULTS AND RECOMMENDATIONS</b>                        | 9  |
| <b>D.1 Chart Comparison</b>                                  |    |
| <b>D.2 Additional Results</b>                                |    |
| Item Investigation   |    |
| General Description of Surveyed Area and Sounding Comparison |    |
| Shoreline  | 10 |
| Submarine cable  |    |
| Bottom Samples   |    |
| <b>E. APPROVAL SHEET</b>                                     | 11 |

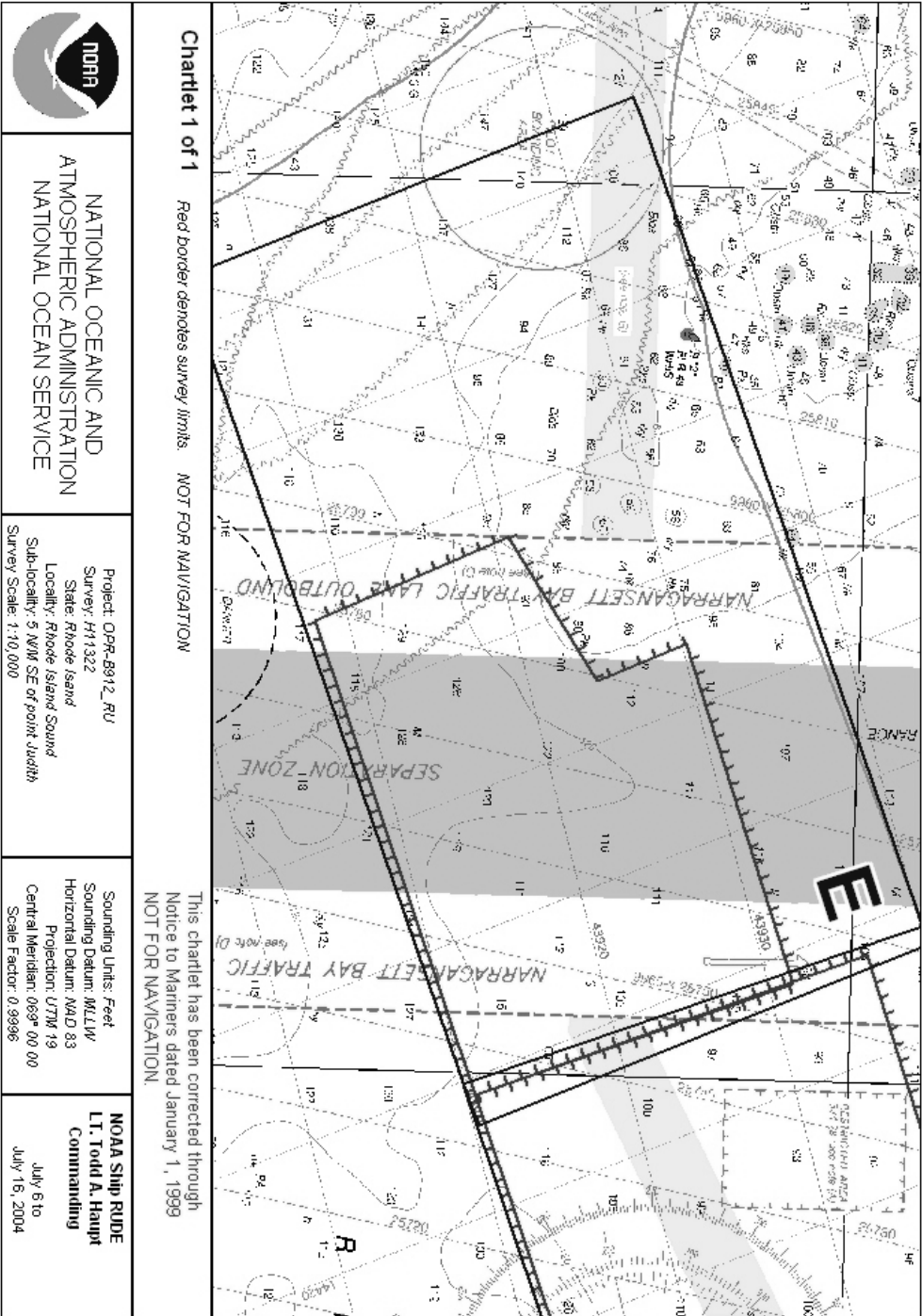
**A. AREA SURVEYED**

This hydrographic survey was conducted in accordance with Hydrographic Survey Letter Instructions for project OPR-B912-RU updated March 26, 2004.

This project is being conducted to provide side scan sonar and/or multibeam data in support of National Ocean Service (NOS) nautical charts, as a response to requests from the Northeast Marine Pilots. This project was conducted in accordance with NOS requirements for side scan sonar and multibeam data acquisition and processing.


Full bottom coverage, consisting of 200% side scan with Multibeam developments was achieved within the entire limits of hydrography for this survey.

For complete survey limits, see the chartlet on the following page.



**Chartlet 1 of 1** Red border denotes survey limits. **NOT FOR NAVIGATION**

This chartlet has been corrected through  
 Notice to Mariners dated January 1, 1999  
**NOT FOR NAVIGATION!**

|   |   |  |   |  |
|---|---|--|---|--|
|  | <p>NATIONAL OCEANIC AND<br/>         ATMOSPHERIC ADMINISTRATION<br/>         NATIONAL OCEAN SERVICE</p> | <p>Project: <i>OPR-8912_RU</i><br/>         Survey: <i>H11322</i><br/>         State: <i>Rhode Island</i><br/>         Locality: <i>Rhode Island Sound</i><br/>         Sub-locality: <i>5 NM SE of point (width)</i><br/>         Survey Scale: <i>1:10,000</i></p> | <p>Sounding Units: <i>Feet</i><br/>         Sounding Datum: <i>MLLW</i><br/>         Horizontal Datum: <i>NAD 83</i><br/>         Projection: <i>UTM 19</i><br/>         Central Meridian: <i>069° 00 00</i><br/>         Scale Factor: <i>0.9996</i></p> | <p><b>NOAA Ship RIDE</b><br/> <b>LT. Todd A. Haupt</b><br/>         Commanding<br/>         July 6 to<br/>         July 16, 2004</p> |
|---|---|--|---|--|

**B. DATA ACQUISITION AND PROCESSING** *See also the Evaluation Report***B1. Equipment**

Data was acquired by NOAA Ship RUDE (S-590).

The RUDE is 90 feet in length with a 22-foot beam and 7-foot draft.

Vertical-beam echo sounding data were acquired on RUDE with an Odom Echotrac dual-beam echo sounder (24 and 200 kHz). RUDE vertical-beam data was used in conjunction with Side Scan Sonar to ensonify objects on the bottom not apparent at side scan nadir and also for crossline checks with the mainscheme lines. No vertical beam data were acquired during multibeam operations.

RUDE acquired all side scan sonar data using a Klein 5500 towfish. Side scan sonar data was recorded digitally on RUDE using Triton ISIS software and archived in Extended Triton Format.

Single frequency (455 kHz) multi-beam data were acquired with a Reson SeaBat 8125 shallow water sonar system. Positioning and attitude for RUDE were determined with a TSS POS/MV and utilizing a Trimble DSM-212L DGPS receiver.

Sound velocity data were acquired using a Sea-Bird SBE 19 SEACAT Conductivity, Temperature and Depth (CTD) Profiler.

No unusual vessel configurations or problems were encountered. Data acquisition and Processing Report (DAPR) has been submitted. \* Please refer to the 2004 DAPR for detailed equipment and vessel configuration. *\*Data filed at the Atlantic Hydrographic Branch.*

**B.2 QUALITY CONTROL****Side Scan Sonar Quality Control**

Daily confidence checks were made by observing the outer ranges of the side scan sonar images. A good check consisted of distinguishing contacts, i.e. lobster pots, drag scours, cable lines, or sand waves across the entire range of the side scan trace. Under conditions of questionable data quality due to high refraction or surface noise, these confidence checks were conducted as often as possible. SSS data acquisition was suspended when targets approximately 1 meter in characteristic size could not be resolved to the edge of the range scale in use.

### **Shallow Water Multibeam Quality Control**

There were no major faults with the shallow water multibeam system, which affected data integrity in this survey. Confidence checks were provided by comparing nadir sounding data to the VBES and ensonification of known side scan contacts. Please refer to the project's \*DAPR for detailed discussion of SWMB system calibrations, patch test, data acquisition, and data processing.

### **Crosslines**

The total distance of crosslines is 28.02 linear nautical miles, which is equal to 9.8% of total mainscheme lines. Crossline to mainscheme line comparison was conducted using MapInfo 6.5 and visually inspecting the resulting sounding plot printout. Comparison is adequate, with the majority of differences being one foot or less.

\*\*A complete autonomous MapInfo workspace and tables may be found following (Local Drive):\Pydro\_Proj\B-912\_Buzz\_bay\SheetE\Descriptive Report\MapInfo Files\Crosslines.

### **Junctions *See also the Evaluation Report***

Survey H11322 junctions with survey H11321 to the East. The soundings in the present survey were in agreement with those in survey H11321. Junctions were inspected visually using MapInfo and found to be adequate, generally within one to two feet with adjacent sounding. \*\*A complete autonomous MapInfo workspace and tables may be found following this data path (Local Drive):\Pydro\_Proj\B-912\_Buzz\_bay\SheetE\Descriptive Report\MapInfo Files\Junctions

## **B.3 CORRECTIONS TO ECHO SOUNDINGS**

All methods or instruments were implemented as described in the Correction to Echo Sounding section of the \*DAPR for this project. A table detailing all sound velocity profiles is located in \*\* Separate III. Sound velocity data has been submitted on a CD-ROM with the digital data package.

*\* Data filed at the Atlantic Hydrographic Branch*

*\*\* Data filed with field records.*

## C. VERTICAL AND HORIZONTAL CONTROL

### Vertical Control

The tidal datum for this project is Mean Lower Low Water (MLLW). All soundings are referenced to MLLW. Mean High Water (MHW) is the tidal datum for all above water vertical clearances. The operating National Water Level Observation Network (NWLON) station at Newport Rhode Island (845-2660) served as datum control for the survey area. All soundings were reduced to Mean Lower Low Water with verified tides. Opening and closing levels were performed by CO-OPS.

A Request for Approved Tides letter was sent to N/OPS1 August 6, 2004 \*\* (Appendix IV). Verified tides from the N/OPS1 CO-OPS website were downloaded and applied to all soundings for this sheet. Tide corrections were applied to the soundings using CARIS HIPS and SIPS v5.3. *Approved tides were re-applied to survey in CARIS during office processing.*

### Horizontal Control *See also the Evaluation Report*

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 19.

Sounding positional control was determined using the Global Positioning System (GPS) corrected by U.S. Coast Guard differential GPS (DGPS) beacon stations. The primary DGPS beacon used for this survey was Acushnet MA. When the primary signal was weak or disabled, the secondary DGPS beacon (Montauk NY) was used. No horizontal control stations were established for this survey.

Horizontal dilution of precision (HDOP) was monitored daily. Data were re-acquired if the HDOP value exceeded 2.5. The TSS POS/MV positioning system was also used to monitor the accuracy of the ship's position and orientation. Data were re-acquired if POS M/V's Estimated position accuracy exceeded 4 m. \* Refer to section A.3 of the 2004 field season DAPR for more details regarding Rude's POS M/V settings and operation. *\*Data filed at the Atlantic Hydrographic Branch.*

*\*\* Data filed with field records.*



**D. RESULTS AND RECOMMENDATIONS** *See also the Evaluation Report***D.1 Chart Comparison**

Chart 13218 is the largest scale chart affected by this survey.

13218 1:80,000 39<sup>th</sup> Ed., JUN /04 NM JUN 12/04 LNM MAY 25/04

United States Coast Guard Notice to Mariners and Local Notice to Mariners corrections were applied through 01 Mar 2004.

Comparisons could only be made with chart 13218 (in feet) due to the scale of the charts.  
*concur*

Agreement with chart 13218 was excellent, with current soundings within plus or minus 2 feet by visual inspection of soundings overlaid on the chart in the PSS. *concur*

**D.2 Additional Results****Item Investigation**

There were no AWOIS items investigated. *concur*

There were no Danger TO Navigation reports (DTONs) submitted for this survey.  
No charted features and four uncharted items are addressed in this Descriptive Report.  
Please refer to \* separates for all the investigated items to be submitted. *\* Data attached to this report.*

**General Description of Surveyed Area and Sounding Comparison**

H11322 covers an area approximately 14.74 square nautical miles.  
The bottom is generally flat with distinct areas of sand, mud and occasional rocks.  
Agreement with chart 13218 was excellent, with current soundings within plus or minus 2 feet by visual inspection of soundings overlaid on the chart in the PSS. *concur*

**Shoreline**

Shoreline investigation was not required for this survey. *concur*

**Submarine Cable**

The Charted submarine cable located on the southwest side of the survey was not evident in 200% Side scan coverage. *concur*

**Bottom Samples**

Bottom sediment samples were collected at 11 sites within the survey area. With a few exceptions, the bottom characteristic is that of various grains of brown sand, And green sticky mud. The hydrographer recommends updating the charts with the given characteristics from the bottom samples is \* Appendix V, Supplemental Survey Records and Correspondence. *concur* \* *Data filed with field records.*

H11322

NOAA Ship RUDE

**APPROVAL SHEET**  
**LETTER OF APPROVAL**  
**REGISTRY NO. H11322**

Data acquisition, processing, and analysis contributing to the accomplishment of this navigable area survey were conducted under my direct supervision with frequent personal checks of progress and adequacy. All data, field sheets, this Descriptive Report, and accompanying records were reviewed in their entirety and are approved.

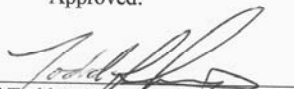
This survey is adequate to supersede all prior surveys in common areas and is considered complete and adequate for nautical charting.

Respectfully Submitted:



Harlan Y Stephens, ST  
NOAA Ship RUDE

Approved:



LT Todd A. Haupt, NOAA  
Commanding Officer  
NOAA Ship RUDE

# H11322

**Registry Number:** H11322  
**State:** Rhode Island  
**Locality:** Buzzards Bay  
**Sub-locality:** 5 N/M SE of point Judith  
**Project Number:** OPR-B912-RU-04  
**Survey Date:** 07/13/2004

## Charts Affected

| Number | Version  | Date       | Scale     |
|--------|----------|------------|-----------|
| 13218  | 38th Ed. | 03/10/2001 | 1:80000   |
| 12300  | 43rd Ed. | 03/01/2003 | 1:400000  |
| 13006  | 31st Ed. | 06/01/2003 | 1:675000  |
| 5161   | 13th Ed. | 10/01/2003 | 1:1058400 |
| 13003  | 47th Ed. | 06/01/2003 | 1:1200000 |

## Features

| No. | Feature Type     | Survey Depth       | Survey Latitude           | Survey Longitude          | AWOIS Item     |
|-----|------------------|--------------------|---------------------------|---------------------------|----------------|
| 1.1 | <del>Shoal</del> | <del>35.07 m</del> | <del>41.27317526° N</del> | <del>71.36507175° W</del> | <del>---</del> |
| 1.2 | <del>Shoal</del> | <del>26.01 m</del> | <del>41.28545145° N</del> | <del>71.42508335° W</del> | <del>---</del> |
| 1.3 | <del>Shoal</del> | <del>33.20 m</del> | <del>41.30402640° N</del> | <del>71.37652753° W</del> | <del>---</del> |
| 1.4 | <del>Shoal</del> | <del>27.16 m</del> | <del>41.30529957° N</del> | <del>71.41611232° W</del> | <del>---</del> |

*1.1 Rk 115 ft 41°16'23.43"N, 71°21'54.26"W*  
*1.2 Rk 85 ft 41°17'07.62"N, 71°25'30.30"W*  
*1.3 Obstr 109 ft 41°18'14.50"N, 71°22'35.50"W*  
*1.4 Rk 89 ft 41°18'19.08"N, 71°24'58.00"W*

## **1 - New Features**

## 1.1) Profile/Beam - 383/144 from h11322\_sheet\_e / ru00\_mb / 2004-195 / 802\_0859

### Survey Summary

**Survey Position:** ~~41.27317526° N, 71.36507175° W~~ **41°16'23.43"N, 71°21'54.26"W**  
**Least Depth:** ~~35.07 m~~ **115 ft**  
**Timestamp:** 2004-195.09:00:29.183 (07/13/2004)  
**Survey Line:** h11322\_sheet\_e / ru00\_mb / 2004-195 / 802\_0859  
**Profile/Beam:** 383/144  
**Charts Affected:** 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Rock

### Feature Correlation

| Address                                   | Feature | Range | Azimuth | Status    |
|---|---------|-------|---------|-----------|
| h11322_sheet_e/ru00_mb/2004-195/802_0859  | 383/144 | 0.00  | 000.0   | Primary   |
| h11322_sheet_e/ru00_sss/2004-189/101_1053 | 0001    | 11.70 | 230.7   | Secondary |
| h11322_sheet_e/ru00_sss/2004-189/201_1013 | 0001    | 14.13 | 085.0   | Secondary |
| h11322_sheet_e/ru00_sss/2004-189/102_1133 | 0001    | 17.60 | 080.5   | Secondary |

### Hydrographer Recommendations

Chart as 115 ft Rk **concur 115Rk**

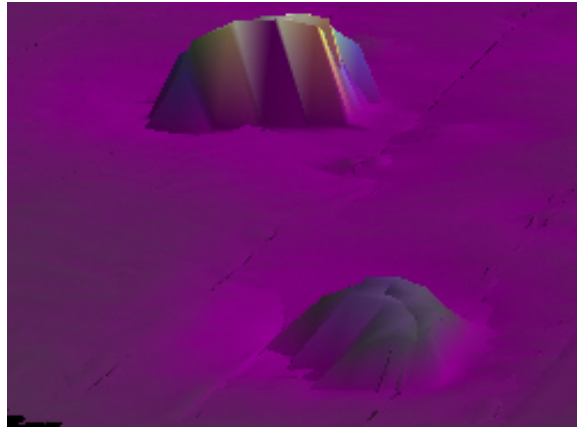
#### Cartographically-Rounded Depth (Affected Charts):

115ft (13218\_1)

19fm (12300\_1, 13006\_1, 13003\_1)

35m (5161\_1)

### Feature Images



*Figure 1.1.1*

## 1.2) Profile/Beam - 598/105 from h11322\_sheet\_e / ru00\_mb / 2004-195 / 820\_0616

### Survey Summary

**Survey Position:** ~~41.28545145° N, 71.42508335° W~~ **41°17'07.62"N, 71°25'30.30"W**  
**Least Depth:** ~~26.01 m~~ **85 ft**  
**Timestamp:** 2004-195.06:18:48.108 (07/13/2004)  
**Survey Line:** h11322\_sheet\_e / ru00\_mb / 2004-195 / 820\_0616  
**Profile/Beam:** 598/105  
**Charts Affected:** 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Rock

### Feature Correlation

| Address                                   | Feature | Range | Azimuth | Status    |
|---|---------|-------|---------|-----------|
| h11322_sheet_e/ru00_mb/2004-195/820_0616  | 598/105 | 0.00  | 000.0   | Primary   |
| h11322_sheet_e/ru00_sss/2004-190/218_1312 | 0001    | 10.06 | 063.8   | Secondary |
| h11322_sheet_e/ru00_sss/2004-189/118_1924 | 0001    | 18.27 | 058.6   | Secondary |
| h11322_sheet_e/ru00_sss/2004-190/217_1345 | 0001    | 21.48 | 263.9   | Secondary |

### Hydrographer Recommendations

Chart as 85 ft Rk **concur 85Rk**

#### Cartographically-Rounded Depth (Affected Charts):

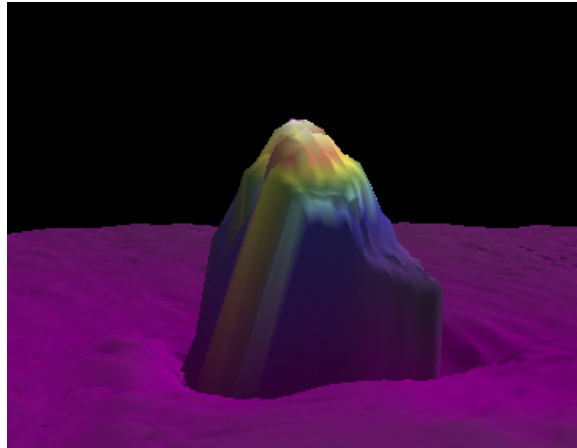
85ft (13218\_1)

14fm (12300\_1, 13006\_1, 13003\_1)

26m (5161\_1)

### Feature Images





*Figure 1.2.1*

### 1.3) Profile/Beam - 482/125 from h11322\_sheet\_e / ru00\_mb / 2004-195 / 809\_0821

#### Survey Summary

**Survey Position:** ~~41.30402640° N, 71.37652753° W~~ **41°18'14.50"N, 71°22'35.50"W**  
**Least Depth:** ~~33.20 m~~ **109 ft**  
**Timestamp:** 2004-195.08:23:52.615 (07/13/2004)  
**Survey Line:** h11322\_sheet\_e / ru00\_mb / 2004-195 / 809\_0821  
**Profile/Beam:** 482/125  
**Charts Affected:** 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

non-dangerous Obstn

#### Feature Correlation

| Address                                   | Feature | Range | Azimuth | Status    |
|---|---------|-------|---------|-----------|
| h11322_sheet_e/ru00_mb/2004-195/809_0821  | 482/125 | 0.00  | 000.0   | Primary   |
| h11322_sheet_e/ru00_sss/2004-190/221_1127 | 0001    | 3.93  | 228.1   | Secondary |
| h11322_sheet_e/ru00_sss/2004-189/121_2044 | 0001    | 12.55 | 066.5   | Secondary |

#### Hydrographer Recommendations

chart as non-dangerous Obstn, with a least depth of 109 ft **concur 109Obstn**

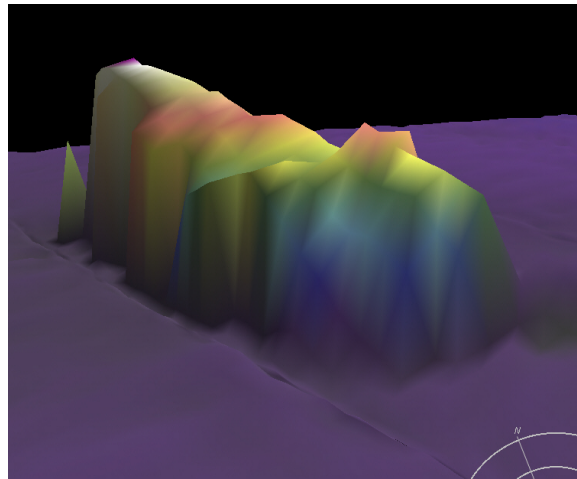
#### Cartographically-Rounded Depth (Affected Charts):

109ft (13218\_1)

18fm (12300\_1, 13006\_1, 13003\_1)

33m (5161\_1)

#### Feature Images



*Figure 1.3.1*

## 1.4) Profile/Beam - 309/51 from h11322\_sheet\_e / ru00\_mb / 2004-195 / 831\_0520

### Survey Summary

**Survey Position:** ~~41.30529957° N, 71.41611232° W~~ **41°18'19.08"N, 71°24'58.00"W**  
**Least Depth:** ~~27.16 m~~ **89 ft**  
**Timestamp:** 2004-195.05:21:59.849 (07/13/2004)  
**Survey Line:** h11322\_sheet\_e / ru00\_mb / 2004-195 / 831\_0520  
**Profile/Beam:** 309/51  
**Charts Affected:** 13218\_1, 12300\_1, 13006\_1, 5161\_1, 13003\_1

#### Remarks:

Rock

### Feature Correlation

| Address                                   | Feature | Range | Azimuth | Status    |
|---|---------|-------|---------|-----------|
| h11322_sheet_e/ru00_mb/2004-195/831_0520  | 309/51  | 0.00  | 000.0   | Primary   |
| h11322_sheet_e/ru00_sss/2004-189/128_0002 | 0001    | 10.66 | 070.4   | Secondary |

### Hydrographer Recommendations

Chart as 89 ft Rk **concur 89Rk**

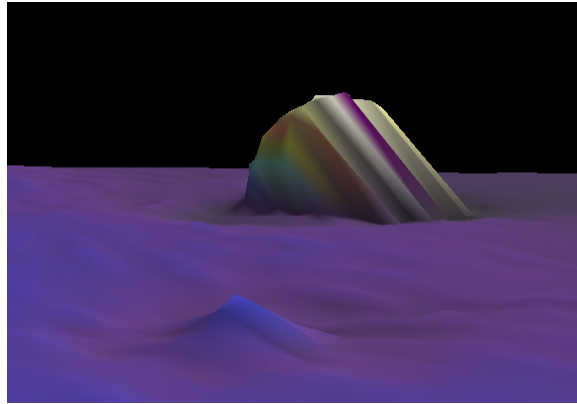
#### Cartographically-Rounded Depth (Affected Charts):

89ft (13218\_1)

15fm (12300\_1, 13006\_1, 13003\_1)

27m (5161\_1)

### Feature Images



*Figure 1.4.1*



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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: March 1, 2005

HYDROGRAPHIC BRANCH: Atlantic  
HYDROGRAPHIC PROJECT: S-B912-RU-2004  
HYDROGRAPHIC SHEET: H11322

LOCALITY: 5 nm SE of Point Judith  
Rhode Island Sound, RI

TIME PERIOD: April 5 - July 14, 2004

TIDE STATION USED: 845-2660 Newport, RI  
Lat.  $41^{\circ} 30.3'N$  Lon.  $71^{\circ} 19.6'W$


PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.099 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: NA627 & NA629

Refer to attachments for zoning information.

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

  
-----  
CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION



**LETTER TRANSMITTING DATA**

DATA AS LISTED BELOW WERE FORWARDED TO YOU BY (Check)

- ORDINARY MAIL                       AIR MAIL
- REGISTERED MAIL                       EXPRESS
- GBL (Give number) \_\_\_\_\_

**TO:**

• CHIEF, DATA ACQUISITION AND CONTROL •  
 NOAA, NOS, OCS, HSD  
 1315 EAST-WEST HIGHWAY  
 SSMC3, STATION 6704,  
 • SILVER SPRING, MARYLAND 20910-3282 •

DATE FORWARDED                      12/20/2005

NUMBER OF PACKAGES                      1

**NOTE:** A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

H11322

RHODE ISLAND, BUZZARDS BAY AND RHODE ISLAND SOUND, 5 NM SE OF POINT JUDITH

ONE TUBE CONTAINING THE FOLLOWING:

- 1 SMOOTH SHEET MYLAR PLOT FOR SURVEY H11322
- 1 MYLAR H-DRAWING PLOT FOR NOS CHART 13218
- 1 RECORD OF APPLICATION TO CHART FORM FOR SURVEY H11322

**FROM:** (Signature)



**RECEIVED THE ABOVE**

(Name, Division, Date)

**Return receipted copy to:**

• NOAA \ NATIONAL OCEAN SERVICE •  
 ATLANTIC HYDROGRAPHIC BRANCH N/CS33  
 439 WEST YORK STREET  
 NORFOLK, VA. 23510-1114  
 •

**ATLANTIC HYDROGRAPHIC BRANCH  
EVALUATION REPORT FOR H11322 (2004)**

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

**B. DATA ACQUISITION AND PROCESSING**

The following software was used to process data at the Atlantic Hydrographic Branch:

Hydrographic Processing System  
MicroStation J, version 07.01.04.16  
I/RAS B, version 07.01.000.18  
MapInfo, version 6.5  
CARIS HIPS/SIPS 5.3  
PYDRO, version 3.7.1

The smooth sheet was plotted using a Hewlett Packard DesignJet 2500CP plotter.

**JUNCTIONS**

H11321 (2004) to the east

A standard junction was effected between the present survey and H11321 (2004) to the east.

There are no contemporary surveys to the west, north or south of the present survey. Present survey depths are in harmony with the charted hydrography to the west, north and south.

**C. HORIZONTAL CONTROL**

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83), UTM Zone 19N. Office processing of this survey is based on these values.

**D. RESULTS AND RECOMMENDATIONS**

COMPARISON WITH Chart 13218 (39<sup>TH</sup> Edition, Jun/04)  
Corrected through NM Jun 12/04  
Corrected through LNM May 25/04

Hydrography



The charted hydrography originates with the prior surveys and requires no further consideration. A comparison with prior surveys was not done during office processing in accordance with section 4. of the memorandum titled, "Changes to Hydrographic Survey Processing", dated May 24, 1995. The hydrographer makes adequate chart comparisons in section D. of the Descriptive Report. The following should be noted:

1) An uncharted non-dangerous rock with a depth of 86 feet in Latitude 41°16'55.50"N, Longitude 71°26'03.97"W, was located during office inspection of the present survey. It is recommended that a rock with a depth of 86 feet be charted as shown on the present survey.

The present survey is adequate to supersede the charted hydrography within the common area.

#### **MISCELLANEOUS**

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

13218 (39<sup>TH</sup> Edition, Jun/04)  
Corrected through NM Jun 12/04  
Corrected through LNM May 25/04

#### **ADEQUACY OF SURVEY**

This is an adequate hydrographic/side scan sonar/multibeam survey. No additional work is recommended.

APPROVAL SHEET  
H11322

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disapproval of charted data. All revisions and additions made to the smooth sheet during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.



Deborah A. Bland  
Cartographer,  
Atlantic Hydrographic Branch

Date: 12/19/2005

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 Evaluation Report.

Approved:



P. Tod Schattgen,  
Lieutenant Commander, NOAA  
Chief, Atlantic Hydrographic Branch

Date: 12/19/2005

