

H12257

NOAA FORM 76-35A

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

## DESCRIPTIVE REPORT

*Type of Survey* Hydrographic Survey

*Field No.* N/A

*Registry No.* H12257

### LOCALITY

*State* Maine

*General Locality* Eastport, ME

*Sublocality* Falls Island, Dennys Bay, and Whiting Bay

**2010**

### CHIEF OF PARTY

LTJG Matthew J. Nardi, NOAA

### LIBRARY & ARCHIVES

DATE

<p style="text-align: center;">U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</p> <p style="text-align: center;"><b>HYDROGRAPHIC TITLE SHEET</b></p>	<p>REGISTRY No</p> <p style="text-align: center;"><b>H12257</b></p>
<p><b>INSTRUCTIONS</b> – The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.</p>	<p>FIELD No: N/A</p>
<p>State <u>Maine</u></p> <hr/> <p>General Locality <u>Eastport, ME</u></p> <hr/> <p>Sub-Locality <u>Falls Island, Dennys Bay and Whiting Bay</u></p> <hr/> <p>Scale <u>1:10,000</u> Date of Survey <u>July 29 to September 27, 2010</u></p> <hr/> <p>Instructions dated <u>5/27/2010</u> Project No. <u>OPR-A375-NRT5-10</u></p> <hr/> <p>Vessel <u>S3002 (NOAA NRT-5)</u></p> <hr/> <p>Chief of party <u>LTJG Matthew J. Nardi CAPT, NOAA</u></p> <hr/> <p>Surveyed by <u>NOAA Navigation Response Team 5 Personnel</u></p> <hr/> <p>Soundings by <u>Kongsberg EM 3002 multibeam exhosounder</u></p> <hr/> <p>SAR by <u>Joe Tegeder</u> Compilation by <u>Toshi Wozumi</u></p> <hr/> <p>Soundings compiled in <u>Meters</u></p> <hr/>	
<p>REMARKS: <u>All times are UTC. UTM Zone 19</u></p> <hr/> <p><u>The purpose of this survey is to provide contemporary surveys to update National Ocean Service (NOS) nautical charts. All separates are filed with the hydrographic data. Revisions and end notes in red were generated during office processing. The processing branch concurs with all information and recommendations in the DR unless otherwise noted. Page numbering may be interrupted or non sequential.</u></p> <hr/> <p><u>All pertinent records for this survey, including the Descriptive Report, are archived at the National Geophysical Data Center (NGDC) and can be retrieved via <a href="http://www.ngdc.noaa.gov/">http://www.ngdc.noaa.gov/</a>.</u></p> <hr/>	

# **DESCRIPTIVE REPORT**

to accompany  
HYDROGRAPHIC SURVEY H12257  
OPR-A375-NRT5-10  
Scale of Survey: 1:10,000  
July - September 2010  
NOAA Navigation Response Team 5  
Matthew Nardi, Team Lead for Final Processing  
Nicholas A. Forfinski, Team Lead for Acquisition

## **A. AREA SURVEYED**

The purpose of project OPR-A375-NRT5-10 was to provide contemporary surveys to update National Ocean Service (NOS) nautical charts in Cobscook Bay and around Eastport, ME. H12257 covered an area of approximately 2.6 nm<sup>2</sup>, from Denny Bay in the north to Whiting Bay in the south, eastward to the entrance to Cobscook Bay.

Complete multibeam echosounder (MBES) coverage was obtained in the survey area to the Navigable Area Limit Line (NALL). Data were acquired as close to shore as safely possible, to the MHW Buffer, or to the 4-meter curve. Additional coverage was obtained in order to determine least depths over features or navigationally significant shoal areas.

Limited shoreline verification was conducted to determine the inshore limit of hydrography and for feature verification of H12257 as per section 3.5.5.3 of the Field Procedures Manual April 2010 (FPM). Shoreline features were given S-57 attribution and included for submission as part of the Pydro Survey Session (PSS).

See Figure 1 on the following page for the survey limits. In accordance with the project instructions, 100% multibeam coverage was acquired for this survey. See Table 1 for a summary of acquisition statistics:

**Table 1: Acquisition Summary Statistics**

Mainscheme single beam sonar only	0 nm
Mainscheme side scan sonar only	0 nm
Mainscheme multibeam sonar only	203.6 nm
Mainscheme single beam sonar/side scan sonar	0 nm
Crosslines (single beam/multibeam)	0 nm/6.0 nm
Developments (single beam/multibeam)	0 nm/0 nm
Shoreline/nearshore investigation	0 nm
# of bottom samples	11
# of items requiring additional effort	0

Total square nautical miles	2.6
Dates of data acquisition	July 29-30 August 9-12 September 9, 14, 22-23, 27

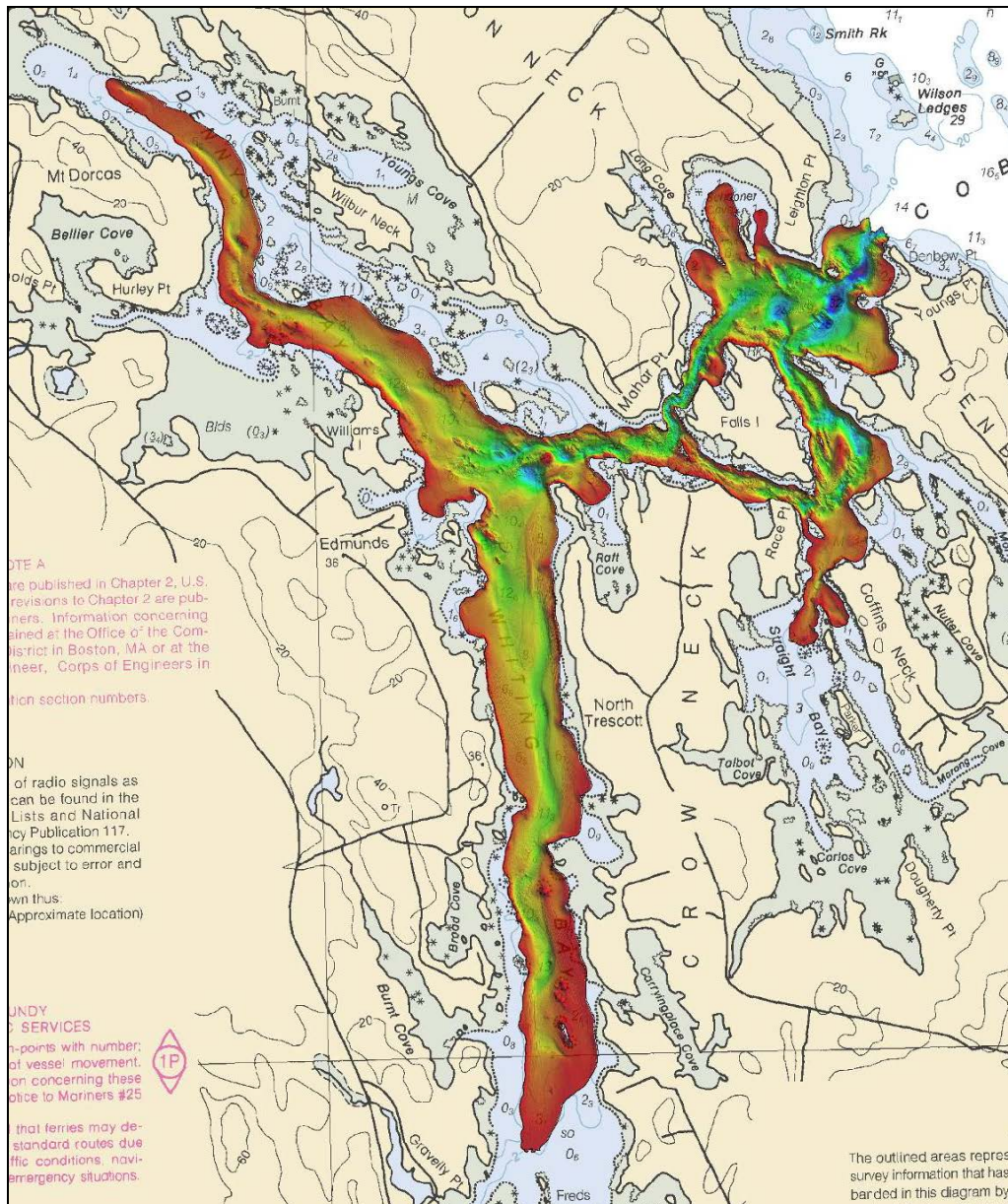


Figure 1: H12257 Survey Area

## **B. DATA ACQUISITION AND PROCESSING**

### **B.1 EQUIPMENT**

Data were acquired by NOAA S3002 (NRT-5). NOAA Survey Vessel S3002 is a 9.8-m (overall) aluminum SeaArk outboard-driven vessel with a nominal multibeam transducer draft of 0.6 meters. NOAA S3002 acquired multibeam bathymetry in the project area. Mainscheme bathymetry data were acquired with a Kongsberg Simrad EM 3002 multibeam echosounder (MBES). Positioning and attitude were determined with an Applanix POS/MV 320 (version 4) GPS aided inertial navigation system. Refer to the *OPR-A375-NRT5-10 Data Acquisition and Processing Report (DAPR)* for a detailed description of the equipment used.

### **B.2 QUALITY CONTROL**

#### **B.2.1 Side Scan Sonar Quality Control**

Side Scan Sonar data were not acquired as part of H12257.

#### **B.2.2 Single Beam Quality Control**

Single Beam Sonar data were not acquired as part of H12257.

#### **B.2.3 Multibeam Echosounder Quality Control**

There were no systematic faults with the MBES system which adversely affected data integrity. Navigation data were reviewed and any fliers were rejected with interpolation. For detailed discussion of MBES system calibrations, data acquisition, and data processing refer to this project's DAPR. Several isolated instances of data integrity are discussed below.

#### **Tidal Artifacts**

Erroneous modeling of the extreme tidal range of the survey area (MHW is 5.555m above MLLW) resulted in several tidal artifacts evident in the data. Figures 2 and 3 below depict areas where these errors were most evident. In the most extreme cases, as in figure 3, the maximum vertical offsets were up to 1 meter. In most cases, vertical offsets were less than 0.5 meters.<sup>1</sup> To eliminate these tidal data artifacts for future surveys in the Cobscook Bay area, additional subordinate tide gauges and TCARI tidal zoning grids should be considered.

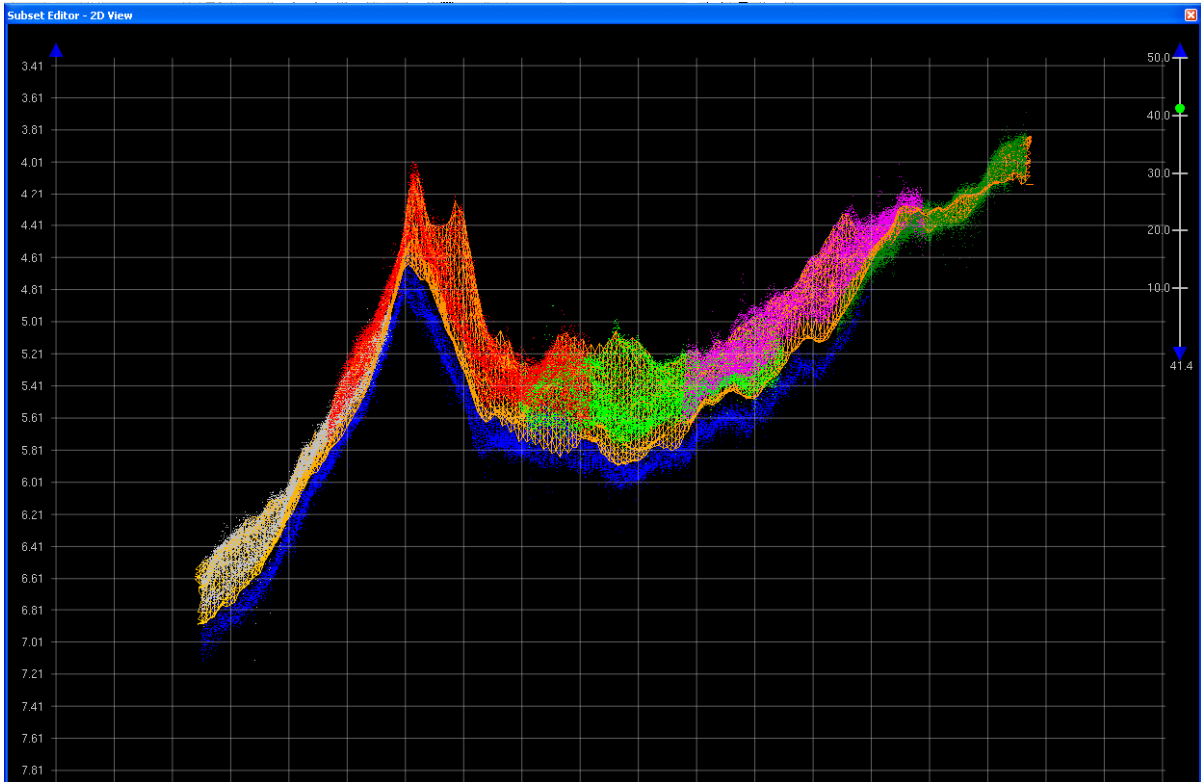


Figure 2: Line 000\_1611C from DN 221 tidal offset from concurrent coverage.

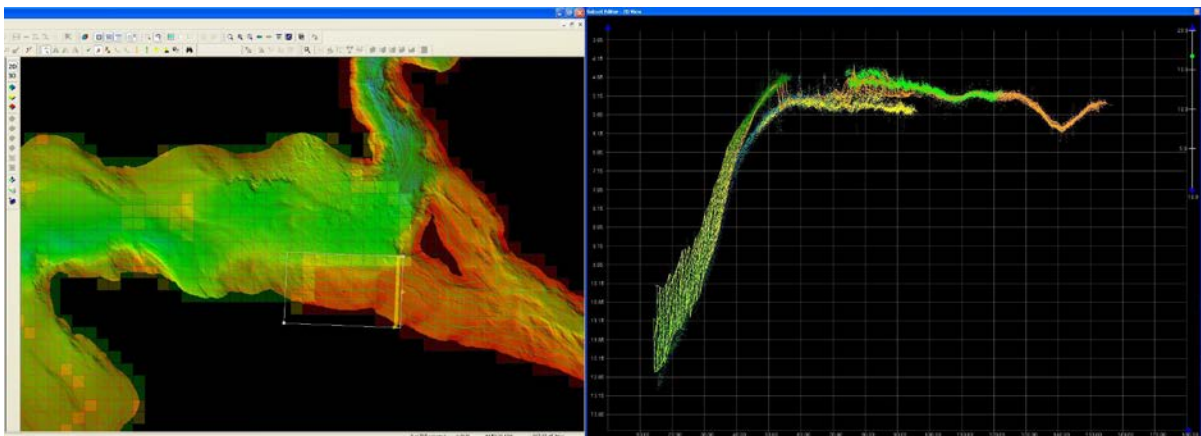


Figure 3: Tidal Zoning artifact in approximate position 44°52.72'N 067°07.78'W

**Holidays**

There were two notable gaps in the coverage of H12257, depicted in figures 4 and 5 below. These holidays were as a result of post processing navigation data and having several lines of bathymetry adjusted further apart than the real time coverage maps. The two areas affected by these holidays do not have any shoaling trends or nearby prominent features. Backscatter data for these areas were also examined for objects or shoaling trends and none were found.<sup>2</sup>



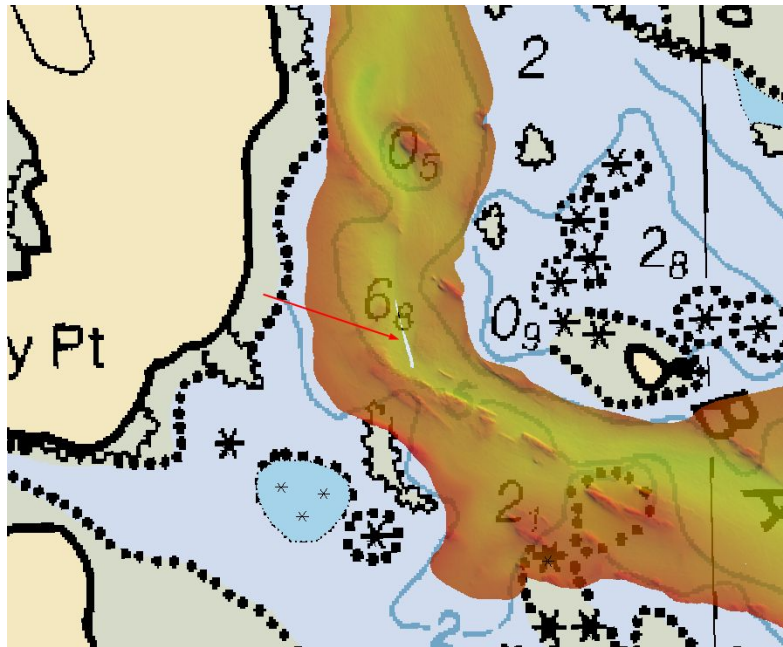


Figure 4: Gap in coverage in approximate position 44°53.54'N 067°10.46'W

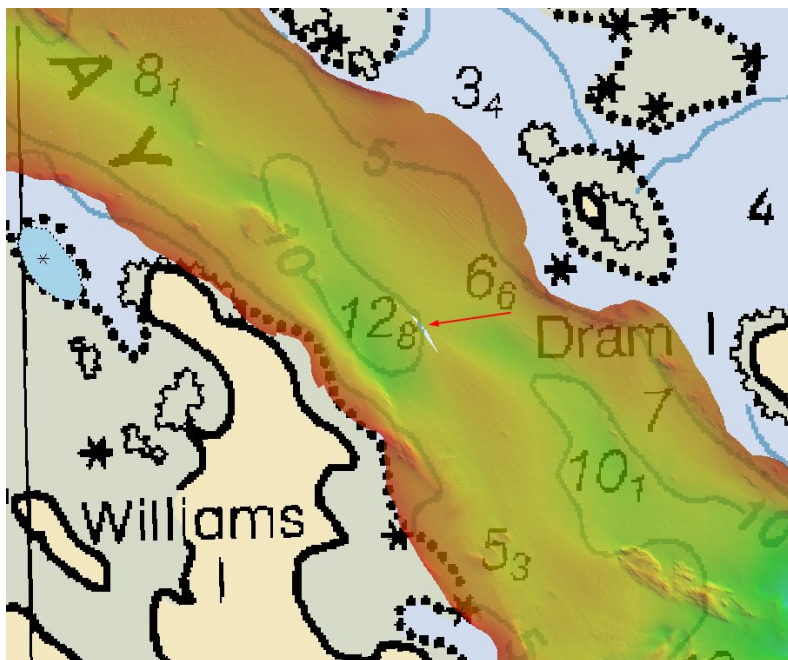


Figure 5: Gap in coverage in approximate position 44°53.08'N 067°09.39'W

**Dynamic Draft error accounting in Hips Vessel File (HVF)**

During final processing, it was revealed that the dynamic draft values for 2008 were initially applied to all data in H12257. Dynamic draft values were not available for 2010 due to the survey schedule, as detailed in the *OPR-A375-NRT5-10 DAPR*. When it was recognized that 2009 values for dynamic draft were available, NRT 5 personnel applied the new values to all data. Although the actual configuration aboard vessel S3002 did not change between 2008 and 2009, the measured values during the respective Hydrographic Survey Readiness

Reviews (HSRR) were different, as detailed in Table 2. The total effect on individual soundings did not exceed 10cm. The H12257 Danger to Navigation report, contained in Appendix I, was produced with data that had 2008 dynamic draft values applied. As a result, the four features that were submitted must be corrected with the appropriate bathymetry derived depths, as per the digital data and H12257.pss. The small variance and the change to 6cm deeper depths on these four features did not necessitate an additional DTaN report.<sup>3</sup>

**Table 2: Dynamic Draft from 2008 and 2009**

RPM	2008		2009	
	Speed(kts)	Dynamic Draft (m)	Speed(kts)	Dynamic Draft(m)
Idle	0.00	0.00	0.00	0.00
900 (1 engine)	2.63	-0.01	2.07	-0.05
900 ( both engines)	3.21	-0.03	3.40	-0.04
2000 (Both)	6.08	-0.04	6.50	-0.04
2200 (Both)	6.96	-0.05	6.55	-0.03

**B.2.4 Total Propagated Error**

Total Propagated Error (TPE) parameters for sound speed and tide data for H12257 are shown in Table 3 below. The estimated tidal error contribution to the total survey error budget in the vicinity of Cobscook Bay is included in the tidal zoning file. Sound speed TPE values were used in accordance with HSTP guidelines regarding frequency of surface and water column sound speed measurements. The TPU parameters pertaining to the vessel and the related survey equipment are contained in the HVF.

**Table 3: Total Propagated Error Values for Tide and Sound Speed**

Parameter	Value
Tide measured	0.01 m
Tide zoning	0.11 m
Sound speed profile	0.5 m/s
Sound speed surface	0.5 m/s

**B.2.5 Fieldsheets and Navigation Surfaces**

Caris HIPS combined uncertainty weighted CUBE surfaces were created for this project. For MBES data, surfaces were created at 1 meter and 2 meter resolution, appropriate to depth. Table 4 below lists all surfaces and mosaics submitted with this survey.

**Table 4: H12257 Bathymetry surfaces**

Fieldsheet	Surface/Mosaic Name	Grid Type	Resolution
H12257	H12257_MBES_1m	Source CUBE	1 m
H12257	H12257_MBES_1m_Final_0to22	Finalized CUBE	1 m
H12257	H12257_MBES_2m	Source CUBE	2m
H12257	H12257_MBES_2m_Final_20to44	Finalized CUBE	2m
H12257	H12257_MBES_Final_Combined	Combined CUBE	2m



### **B.2.6 Crosslines**

For this survey, 6.0 nm of crosslines (2.94% of mainscheme lines) were acquired. A visual examination of approximately 15% of checkpoint areas showed general agreement between crosslines and mainscheme lines to within 0.3 meters. The requirement for 4% of mainscheme crosslines was not met due to the hazardous near shore areas within the survey limits.

### **B.2.7 Junctions**

Survey H12257 junctions with H12258, which is Sheet B of the same project. The area of overlap between the sheets was reviewed in CARIS Subset Editor for consistency and data were found to be in excellent agreement within the total allowable vertical and horizontal uncertainty in their common areas within 0.3 meters.

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

All methods or instruments used were as described in the project DAPR.

### **B.4 Data Processing**

Data processing procedures for survey H12257 conform to those detailed in the DAPR. Data were processed using CARIS HIPS & SIPS v7.0, Service Pack 2, and Hotfix 6. Additional processing details regarding Total Propagated Uncertainty (TPU/TPE) and CUBE (Combined Uncertainty and Bathymetry Estimator) Surfaces and Parameters utilized, along with any the deviations from the processing procedures outlined in the DAPR are discussed in section B.2.4.

The CARIS HIPS BASE (Bathymetry Associated with Statistical Error) surfaces delivered with H12257 and their associated resolutions are listed in Table 3. All field sheet extents were adjusted using the *Base 16 Calculator* tool to ensure coincident nodes among all bathymetric surfaces regardless of the field sheet in which they are contained given the standard surface resolutions of one, two, four, eight, and sixteen meters. The NOAA CUBE parameters mandated in HSSD were used for the creation of all CUBE BASE surfaces in Survey H12257.

The surfaces have been reviewed where noisy data, or ‘fliers’ are incorporated into the gridded solution causing the surface to be shoaler than the true seafloor. Where these spurious soundings cause the gridded surface to be shoaler than the reliably measured seabed by greater than the maximum allowable TVU at that depth, the noisy data have been rejected and the surface recomputed.

## **C. VERTICAL AND HORIZONTAL CONTROL**

A *Horizontal and Vertical Control Report* for survey H12257 was not necessary due to field personnel not installing or maintaining any tide gauges or horizontal control stations. All information pertinent to horizontal and vertical control is detailed below.

### **C.1 VERTICAL CONTROL**

The tidal datum for this project is Mean Lower Low Water (MLLW). The operating National Water Level Observation Network (NWLON) stations at Eastport, ME (841-0140) and Gravelly Point, ME (841-0864) served as datum control for the survey area. A Request for Approved Tides was sent to N/OPS1 on November 01, 2010 (see Appendix IV). The final discrete grid and tide note for H12257 were received on December 08, 2010.<sup>4</sup> Verified water levels from the N/OPS1 CO-OPS website were downloaded and applied to all sounding data.

### **C.2 HORIZONTAL CONTROL**

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 19. Differential correctors from the U.S. Coast Guard beacon at Penobscot, ME (290 kHz) were used during real-time acquisition when not otherwise noted in the acquisition logs. The Post Processing Kinematic method (PPK) is the primary method of horizontal positioning of MBES soundings on H12257. Correctors from the CORS GPS base station in Eastport (CORS ID EPRT) were used for post processing all vessel-day POSMV files. Smoothed Best Estimate of Trajectory files were applied to all MBES data in CARIS HIPS. Information on which lines were processed using PPK techniques can be found in the H12257\_POXPAC\_Processing\_Log.xlsx contained in the Seperates I folder. No horizontal control stations were established for this survey.

## D. RESULTS AND RECOMMENDATIONS

### D.1 CHART COMPARISON

The following RNCs (raster navigational charts) and ENC (electronic navigation charts) are affected by H12257:<sup>5</sup>

**Table 5: RNCs and ENCs affected by H12257**

RNC	Edition	Edition Date	Scale
13394	3	07/01/02	1:50,000

ENC	Edition	Issue Date
US5ME55M	1	5/18/10

#### D.1.1 General Agreement with Charted depths

Sounding data generally agreed with charted depths and contours within 1 meter. Navigationally significant differences from charted depths are addressed in Appendix II of this report. The Hydrographer has determined that bottom coverage requirements have been met and data accuracy meets requirements specified by the HSSD. All soundings from H12257 are adequate to supersede prior surveys and charted depths in their common areas.

#### D.1.2 Dangers to Navigation

There were four (4) DTONs submitted for survey H12257. The full DTON report<sup>6</sup> is included in Appendix I and was reported to the Marine Chart Division on May 05, 2011. Due to the dynamic draft issues discussed in section B.2.3 the features will require additional correction as per the digital data and the information in H12257.pss.<sup>7</sup>

#### D.1.3 AWOIS Items

There were three (3) AWOIS items within the survey limits of H12257. AWOIS Items 14791, 14792, and 14793 were covered with 100% MBES. The Hydrographer recommends that the AWOIS items 14791 and 14792 be removed and 14791 and 14793 be retained in the AWOIS database as per the recommendations and remarks in the PSS.<sup>8</sup> Item 14791 had an additional dive investigation by the Maine State Police Dive Team after the end of data acquisition for the identification of the wreck “MISS PRISS”.<sup>9</sup> Correspondence regarding this dive is contained in Appendix V<sup>10</sup>, and alteration to the chart was made in the District 1 Local Notice to Mariners 05/11. Recommendations on all AWOIS items are contained in the H12257.pss.

#### D.1.4 Shoreline/Features

NRT 5 personnel conducted limited shoreline verification and reconnaissance during the course of regular multibeam survey. Features are addressed digitally in the H12257.pss and summarized in the feature report contained in Appendix II. Three (3) redigitized area

features contained in ...H12257\PSS\FeatureManagement\H12257\_Area\_Features.000 were created in Hypack ENC Editor due to the lack of ability to create area features in Pydro. These mischarted reefs were repositioned with observations from the field, surrounding bathymetry, and digital orthophotos from the USGS. All charted items not specifically addressed in Appendix II are recommended to be retained as charted by the hydrographer.<sup>11</sup>

## **D.2 ADDITIONAL RESULTS**

### **D.2.1 Aids to Navigation**

There were no charted AToNs within the survey limits of H12257 and none were observed in the field.

### **D.2.2 Bridges and Overhead Cables**

There are no charted bridges or overhead cables within the survey limits of H12257 and none were observed in the field.

### **D.2.3 Submarine Cables and Pipelines**

There are no charted submarine cable areas or pipelines in the survey area and none were detected in the digital data.

### **D.2.4 Bottom Samples**

11 bottom samples were collected during the survey.<sup>12</sup> Details and photos can be found in the Survey Features Report (Appendix II) and in H12257.pss.

## E. APPROVAL SHEET

**OPR-A375-NRT5-10  
H12257  
Eastport, ME  
Falls Island, Dennys Bay and Whiting Bay**

Field operations for this survey were conducted under my daily supervision with frequent checks of progress and adequacy. All fieldsheets, bathymetry models, this Descriptive Report, and all accompanying records and data are approved.

Submitted in association with this descriptive report has been a series of reports and data:

- 2010 Data Acquisition and Processing Report (submitted with this report)
- 2010 HSRR Memo (submitted with this report)
- Tides and Water Levels Package for OPR-A375-NRT5-10 (submitted 11/01/2010 under separate cover)
- Coast Pilot Report for OPR-A375-NRT5-10 (submitted 4/25/2011 under separate cover)

This survey is adequate to supersede all prior surveys in common areas, and for application to the relevant NOS nautical charts.

Respectfully,



Matthew Nardi  
I am the author of this document  
2011.05.17 16:56:55 -04'00'

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Matthew Nardi  
NRT-5 Team Lead

- 
- <sup>1</sup> Concur. The shoal depths were honored in BASE surface where depth discrepancies occurred due to tides.
- <sup>2</sup> Concur, the coverage gaps were considered to be insignificant during office review.
- <sup>3</sup> Concur, the four Dtons are included in the HCell with the updated depths.
- <sup>4</sup> The Final Tide Note is appended to this report.
- <sup>5</sup> H12257 was compared to chart 13394 3<sup>rd</sup> edition, July 2002 (Notice to Mariners: 10/01/2011)
- <sup>6</sup> The Dton report is appended to this report.
- <sup>7</sup> Depth corrections have been made to the Dtons and were included in the HCell.
- <sup>8</sup> Do not concur. Only remove AWOIS 14792. Update position for AWOIS 14791, and remove wreck and chart new obstruction for AWOIS 14793.
- <sup>9</sup> Wreck MISS PRISS with a least depth of 14.9 meters shall not be charted due to its relative navigational insignificance at chart scale. Directly adjacent to the wreck is a rock with a least depth of 4.8 meters that will be charted.
- <sup>10</sup> Appended to this document.
- <sup>11</sup> Concur with clarification. The submitted PSS and .000 files were used in compilation of HCell H12257. Some modifications were made to the features during compilation to accommodate for chart scale. It is recommended that features be charted as depicted on the HCell.
- <sup>12</sup> Eleven (11) new bottom samples were included in the HCell along with the office delineated rocky seabed areas. Conflicting bottom samples were removed.



# H12257 DTON Report

**Registry Number:** H12257  
**State:** Maine  
**Locality:** Eastport, ME  
**Sub-locality:** Falls Island, Dennys Bay, and Whiting Bay  
**Project Number:** OPR-A375-NRT5-10  
**Survey Dates:** 08/09/2010 - 09/27/2010

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13394	3rd	07/01/2002	1:50,000 (13394_1)	USCG LNM: 03/02/2010 (04/13/2010) CHS NTM: 07/31/2009 (03/26/2010) NGA NTM: 03/29/2008 (04/24/2010)
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

\* Correction(s) - source: last correction applied (last correction reviewed--"cleared date")

## Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude
1.1	Rock	0.08 m	44° 53' 35.9" N	067° 10' 22.4" W
1.2	Shoal	4.63 m	44° 52' 47.3" N	067° 08' 58.8" W
1.3	Shoal	3.54 m	44° 53' 24.3" N	067° 09' 51.1" W
1.4	Rock	0.94 m	44° 53' 21.3" N	067° 10' 17.7" W

## **1 - Danger To Navigation**

**1.1) Profile/Beam - 14287/227 from h12257 / nrt5\_s3002\_em3002\_mbes / 2010-221 / 000\_1446b**

**DANGER TO NAVIGATION**

**Survey Summary**

**Survey Position:** 44° 53' 35.9" N, 067° 10' 22.4" W  
**Least Depth:** 0.08 m (= 0.25 ft = 0.042 fm = 0 fm 0.25 ft)  
**TPU (±1.96σ):** **THU (TPEh)** ±1.968 m ; **TVU (TPEv)** ±0.251 m  
**Timestamp:** 2010-221.14:58:34.027 (08/09/2010)  
**Survey Line:** h12257 / nrt5\_s3002\_em3002\_mbes / 2010-221 / 000\_1446b  
**Profile/Beam:** 14287/227  
**Charts Affected:** 13394\_1, 13003\_1

**Remarks:**

[None]

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h12257/nrt5_s3002_em3002_mbes/2010-221/000_1446b	14287/227	0.00	000.0	Primary

**Hydrographer Recommendations**

Add rock awash to chart

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

0fm (13003\_1)

.1m (13394\_1)

**S-57 Data**

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** SORDAT - 20100927  
 SORIND - US, US, NSURF, H12257  
 TECSOU - 3:found by multi-beam  
 VALSOU - 0.077 m

WATLEV - 5:awash

### Feature Images

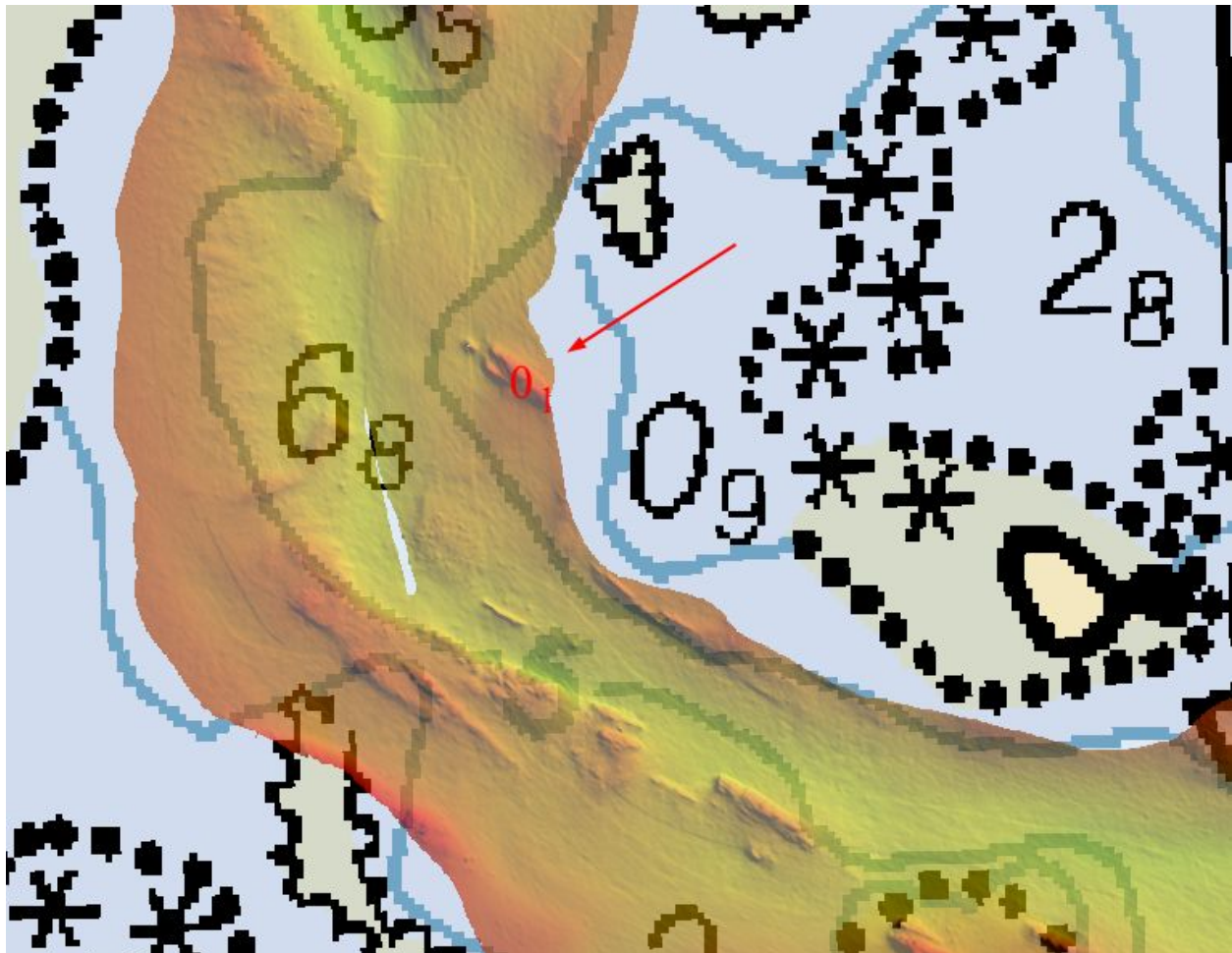


Figure 1.1.1

## 1.2) Profile/Beam - 274/138 from h12257 / nrt5\_s3002\_em3002\_mbes / 2010-224 / 000\_1409b

### DANGER TO NAVIGATION

#### Survey Summary

**Survey Position:** 44° 52' 47.3" N, 067° 08' 58.8" W  
**Least Depth:** 4.63 m (= 15.18 ft = 2.530 fm = 2 fm 3.18 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.964$  m ; TVU (TPEv)  $\pm 0.260$  m  
**Timestamp:** 2010-224.14:09:57.936 (08/12/2010)  
**Survey Line:** h12257 / nrt5\_s3002\_em3002\_mbes / 2010-224 / 000\_1409b  
**Profile/Beam:** 274/138  
**Charts Affected:** 13394\_1, 13003\_1

#### Remarks:

[None]

#### Feature Correlation

Address	Feature	Range	Azimuth	Status
h12257/nrt5_s3002_em3002_mbes/2010-224/000_1409b	274/138	0.00	000.0	Primary

#### Hydrographer Recommendations

Add isolated sounding to chart. Extend 5m contour to encompass sounding.

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

2 ½fm (13003\_1)

4.6m (13394\_1)

#### S-57 Data

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** SORDAT - 20100927  
 SORIND - US, US, NSURF, H12257  
 TECSOU - 3:found by multi-beam



### Feature Images

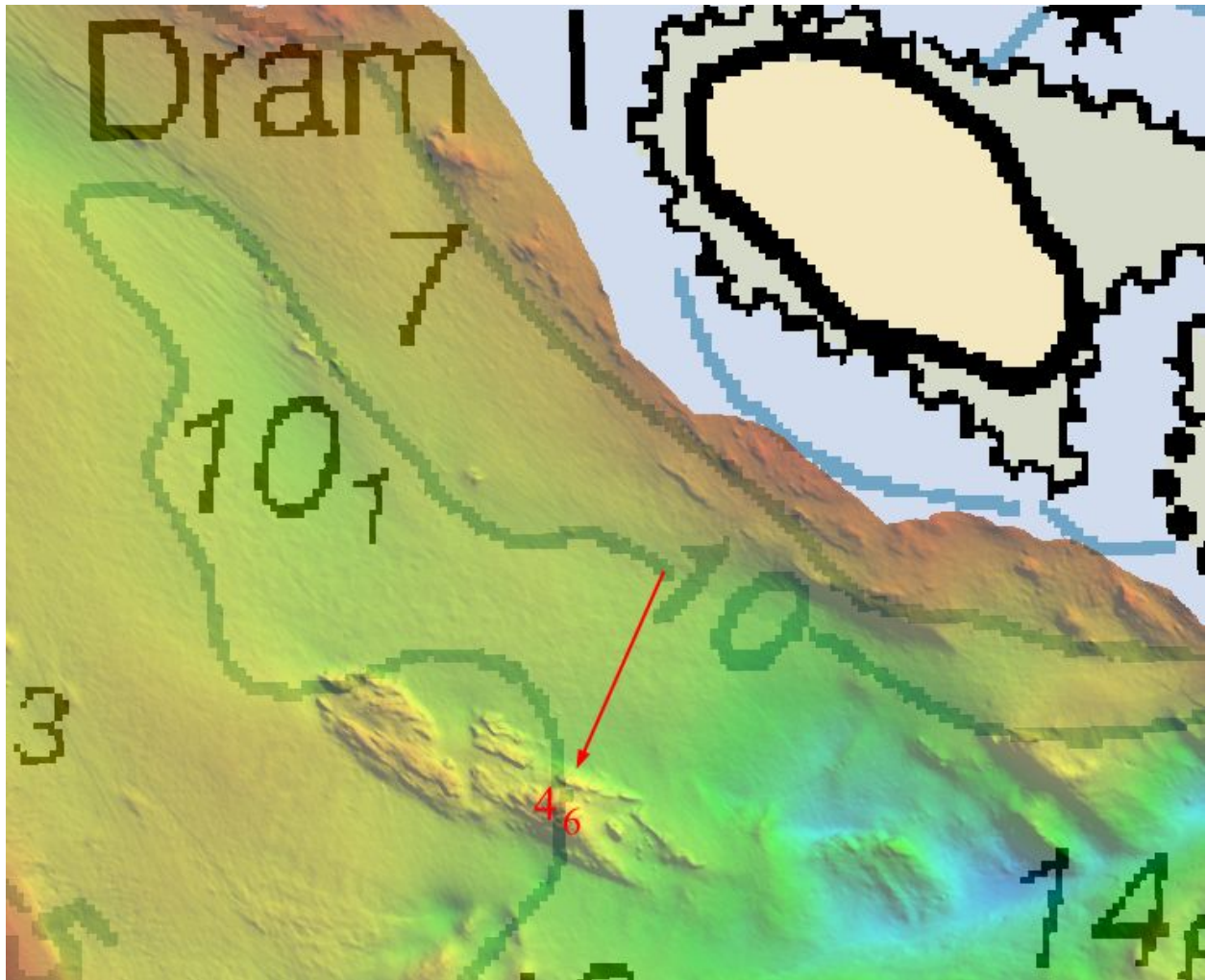


Figure 1.2.1

**1.3) Profile/Beam - 2956/224 from h12257 / nrt5\_s3002\_em3002\_mbes / 2010-224 / 000\_1511c**

**DANGER TO NAVIGATION**

**Survey Summary**

**Survey Position:** 44° 53' 24.3" N, 067° 09' 51.1" W  
**Least Depth:** 3.54 m (= 11.60 ft = 1.934 fm = 1 fm 5.60 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.971$  m ; **TVU (TPEv)**  $\pm 0.253$  m  
**Timestamp:** 2010-224.15:14:18.782 (08/12/2010)  
**Survey Line:** h12257 / nrt5\_s3002\_em3002\_mbes / 2010-224 / 000\_1511c  
**Profile/Beam:** 2956/224  
**Charts Affected:** 13394\_1, 13003\_1

**Remarks:**

Add isolated sounding to chart. Extend 5m contour to encompass sounding.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h12257/nrt5_s3002_em3002_mbes/2010-224/000_1511c	2956/224	0.00	000.0	Primary

**Hydrographer Recommendations**

[None]

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

1 ¾fm (13003\_1)  
 3.5m (13394\_1)

**S-57 Data**

**Geo object 1:** Sounding (SOUNDG)  
**Attributes:** SORDAT - 20100927  
 SORIND - US, US, NSURF, H12257  
 TECSOU - 3:found by multi-beam

### Feature Images

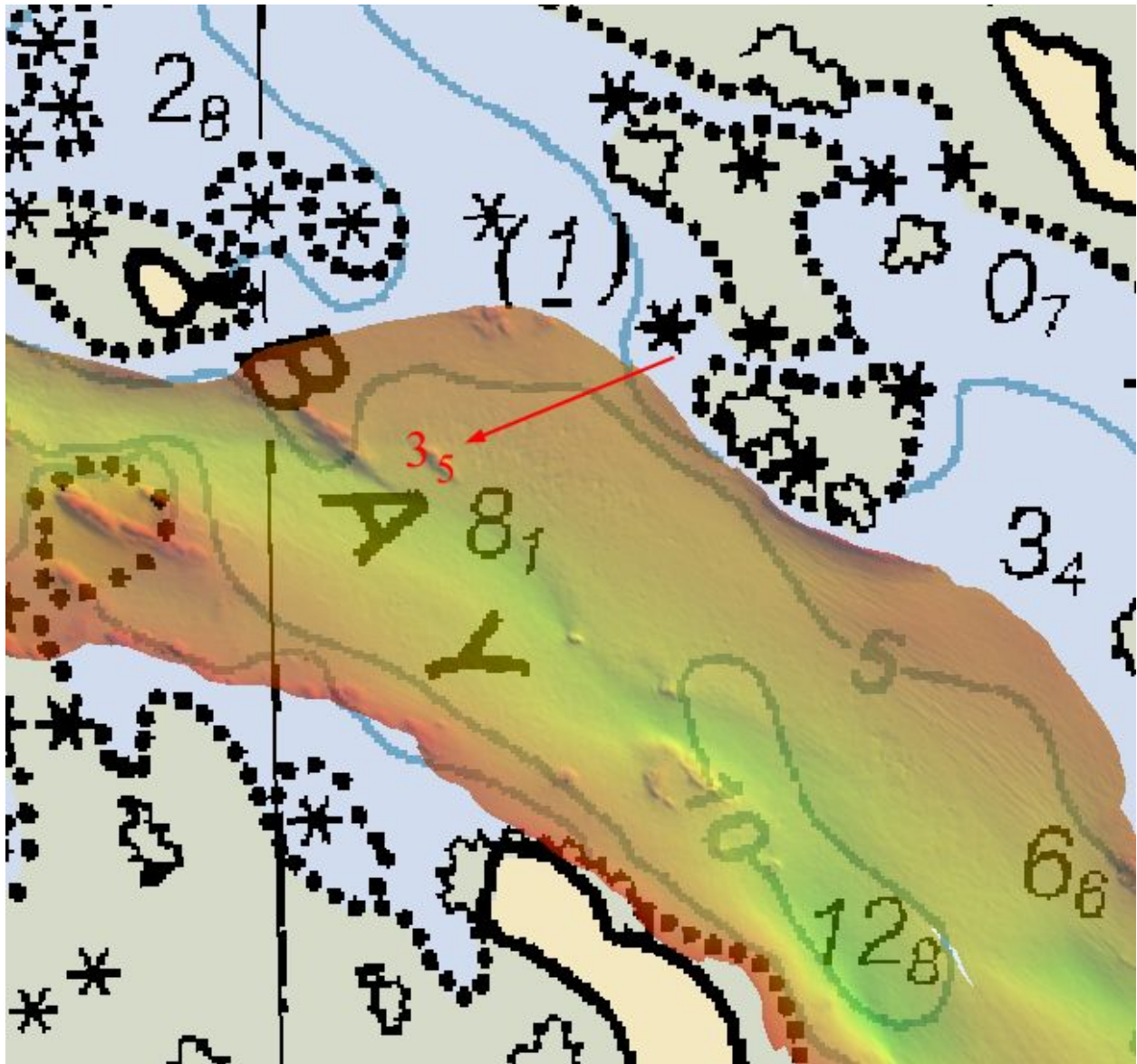


Figure 1.3.1

**1.4) Profile/Beam - 1453/176 from h12257 / nrt5\_s3002\_em3002\_mbes / 2010-270 / 622\_1828**

**DANGER TO NAVIGATION**

**Survey Summary**

**Survey Position:** 44° 53' 21.3" N, 067° 10' 17.7" W  
**Least Depth:** 0.94 m (= 3.07 ft = 0.511 fm = 0 fm 3.07 ft)  
**TPU ( $\pm 1.96\sigma$ ):** **THU (TPEh)**  $\pm 1.965$  m ; **TVU (TPEv)**  $\pm 0.254$  m  
**Timestamp:** 2010-270.18:29:49.690 (09/27/2010)  
**Survey Line:** h12257 / nrt5\_s3002\_em3002\_mbes / 2010-270 / 622\_1828  
**Profile/Beam:** 1453/176  
**Charts Affected:** 13394\_1, 13003\_1

**Remarks:**

Add underwater rock to chart. Extend 2m contour to encompass sounding.

**Feature Correlation**

Address	Feature	Range	Azimuth	Status
h12257/nrt5_s3002_em3002_mbes/2010-270/622_1828	1453/176	0.00	000.0	Primary

**Hydrographer Recommendations**

[None]

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

0 ½fm (13003\_1)  
 .9m (13394\_1)

**S-57 Data**

**Geo object 1:** Underwater rock / awash rock (UWTROC)  
**Attributes:** SORDAT - 20100927  
 SORIND - US, US, NSURF, H12257  
 TECSOU - 3:found by multi-beam  
 VALSOU - 0.935 m

WATLEV - 3:always under water/submerged



### Feature Images

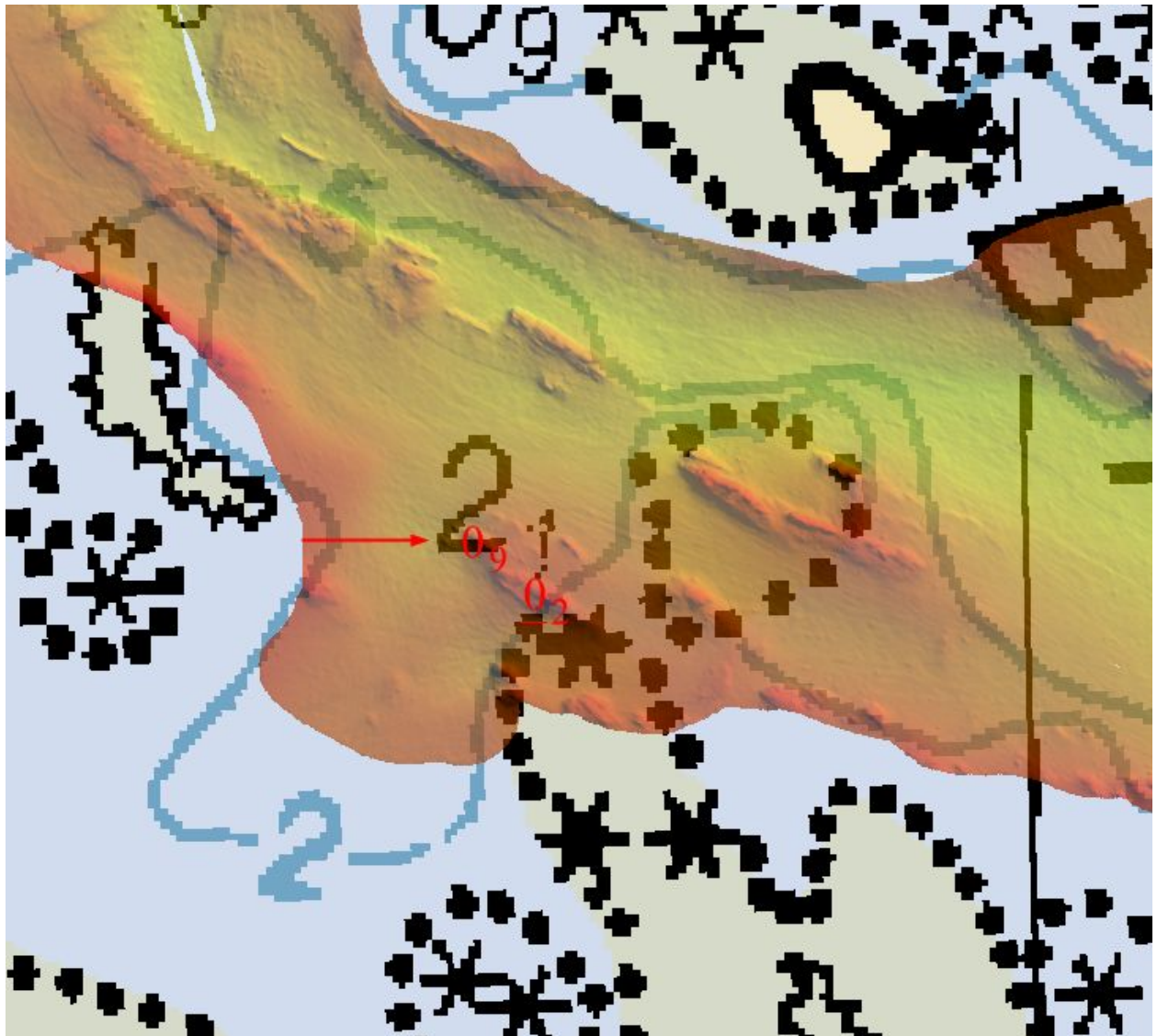


Figure 1.4.1



# Survey H12257 AWOIS Report

**Registry Number:** H12257  
**State:** Maine  
**Locality:** Eastport, ME  
**Sub-locality:** Falls Island, Dennys Bay, and Whiting Bay  
**Project Number:** OPR-A375-NRT5-10  
**Survey Dates:** 08/12/2010 - 09/23/2010

## Charts Affected

Number	Edition	Date	Scale (RNC)	RNC Correction(s)*
13394	3rd	07/01/2002	1:50,000 (13394_1)	USCG LNM: 03/02/2010 (04/13/2010) CHS NTM: 07/31/2009 (03/26/2010) NGA NTM: 03/29/2008 (04/24/2010)
13003	49th	04/01/2007	1:1,200,000 (13003_1)	[L]NTM: ?

\* Correction(s) - source: last correction applied (last correction reviewed--"cleared date")

## Features

No.	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	Obstruction	9.20 m	44° 53' 27.9" N	067° 07' 17.6" W	14793
1.2	Wreck	14.88 m	44° 52' 46.6" N	067° 08' 24.2" W	14791
1.3	AWOIS	[no data]	[no data]	[no data]	---

**1 - DR\_AWOIS**

## 1.1) Profile/Beam - 120/133 from h12257 / nrt5\_s3002\_em3002\_mbes / 2010-266 / 093\_1811

### Primary Feature for AWOIS Item #14793

**Search Position:** 44° 53' 27.0" N, 067° 07' 12.0" W  
**Historical Depth:** [None]  
**Search Radius:** 150  
**Search Technique:** S2, ES, MB, SD  
**Technique Notes:** [None]

#### History Notes:

LNM 0394-- USCG 1994; A submerged wreck reported at the approximate position 44°53'30.0" - 67°07'12.0".

LNM 0494-- USCG 1994; A submerged wreck reported at the approximate position 44°53'27.0" - 67°07'12.0". A revision of location to LNM 0394. Wreck is charted as a submerged dangerous wreck with a "(rep 1994)". (entered CEH 5/2010)

### Survey Summary

**Survey Position:** 44° 53' 27.9" N, 067° 07' 17.6" W  
**Least Depth:** 9.20 m (= 30.17 ft = 5.029 fm = 5 fm 0.17 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.970$  m ; TVU (TPEv)  $\pm 0.260$  m  
**Timestamp:** 2010-266.18:11:17.271 (09/23/2010)  
**Survey Line:** h12257 / nrt5\_s3002\_em3002\_mbes / 2010-266 / 093\_1811  
**Profile/Beam:** 120/133  
**Charts Affected:** 13394\_1, 13003\_1

#### Remarks:

Item found within AWOIS radius for ITEM 14793.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h12257/nrt5_s3002_em3002_mbes/2010-266/093_1811	120/133	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14793	126.48	283.2	Secondary

## Hydrographer Recommendations

Recommend removing wreck symbol and adding 9.2m OBSTN. Not enough information in multibeam to confirm obstruction is a wreck.

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

5fm (13003\_1)

9.2m (13394\_1)

## S-57 Data

**Geo object 1:** Obstruction (OBSTRN)  
**Attributes:** SORDAT - 20100927  
SORIND - US,US,graph,H12257  
TECSOU - 3:found by multi-beam  
VALSOU - 9.197 m  
WATLEV - 3:always under water/submerged

Office Notes: Concur

### Feature Images

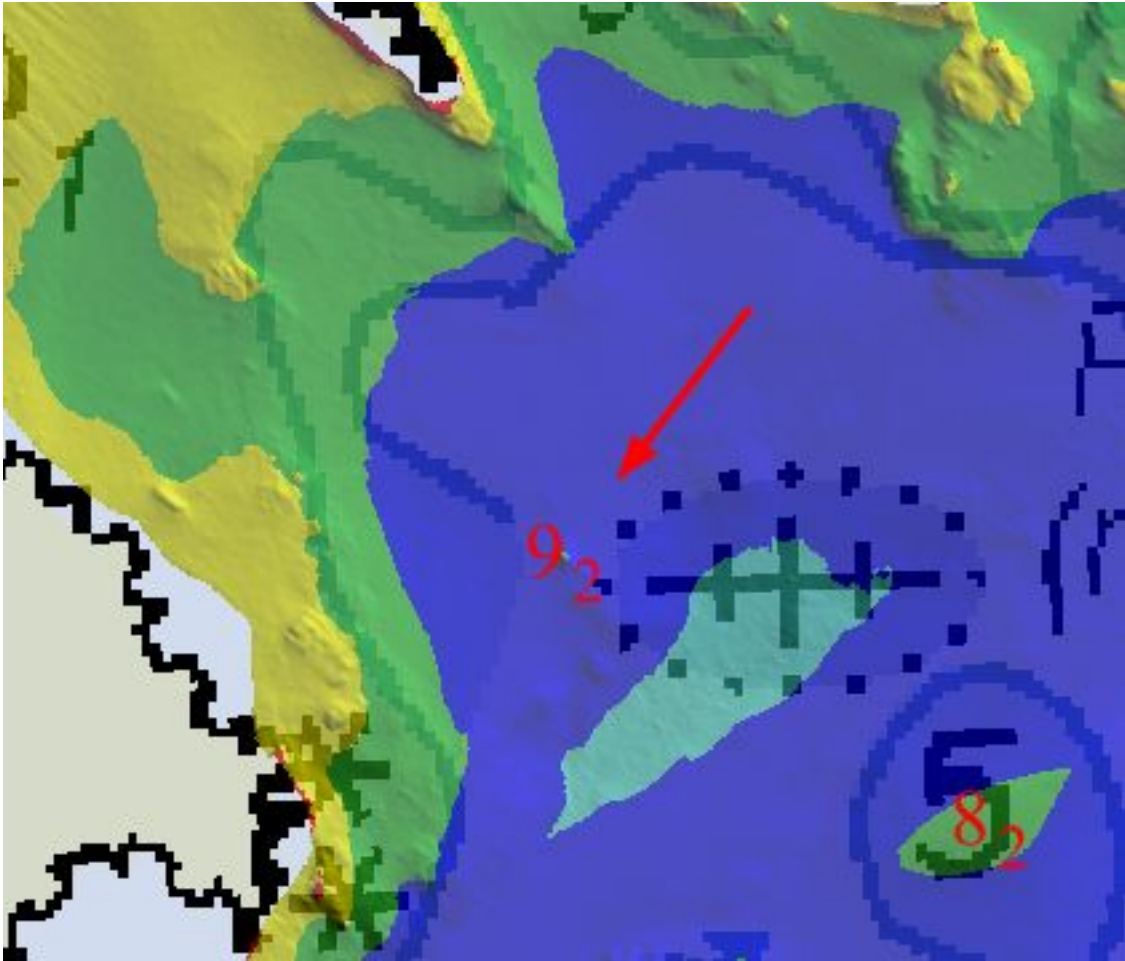


Figure 1.1.1

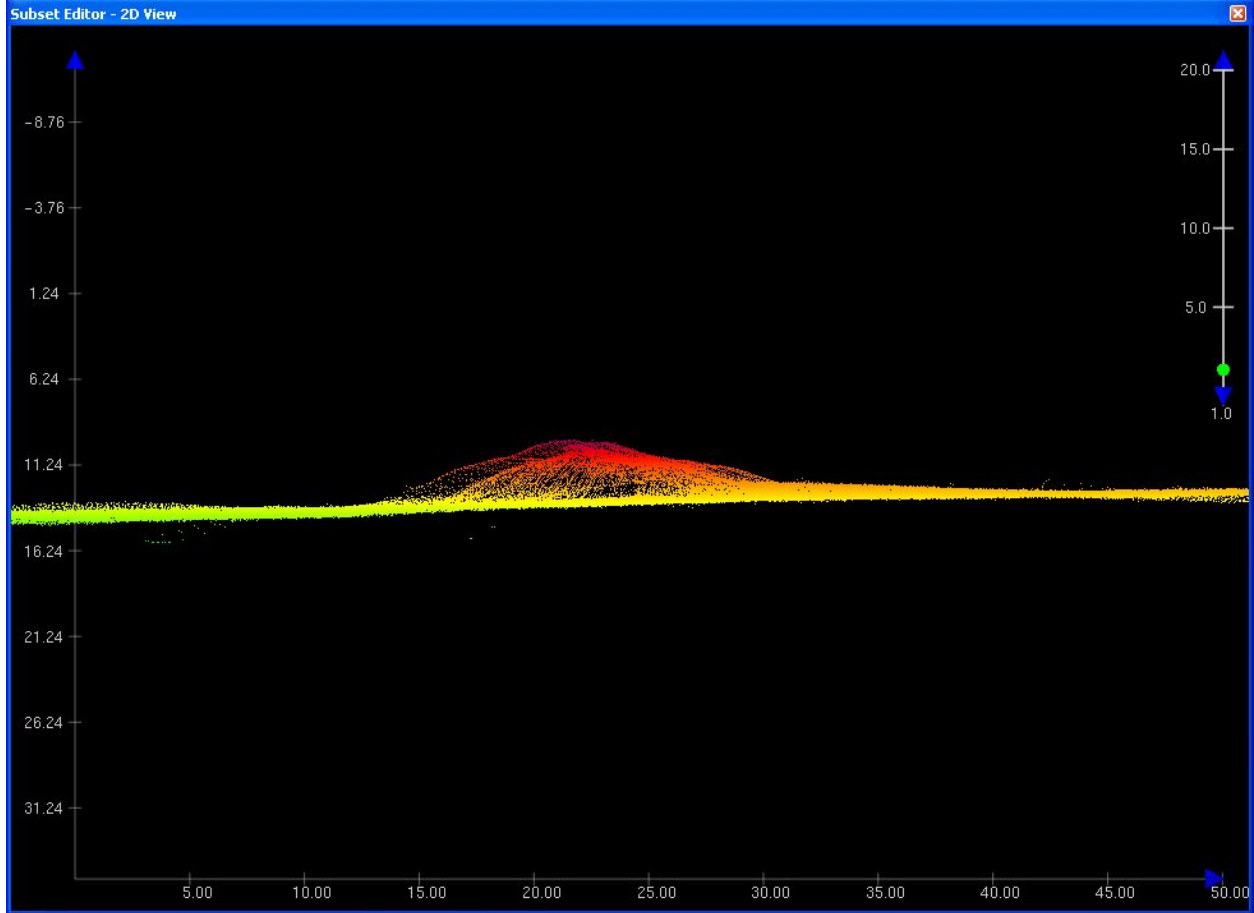


Figure 1.1.2

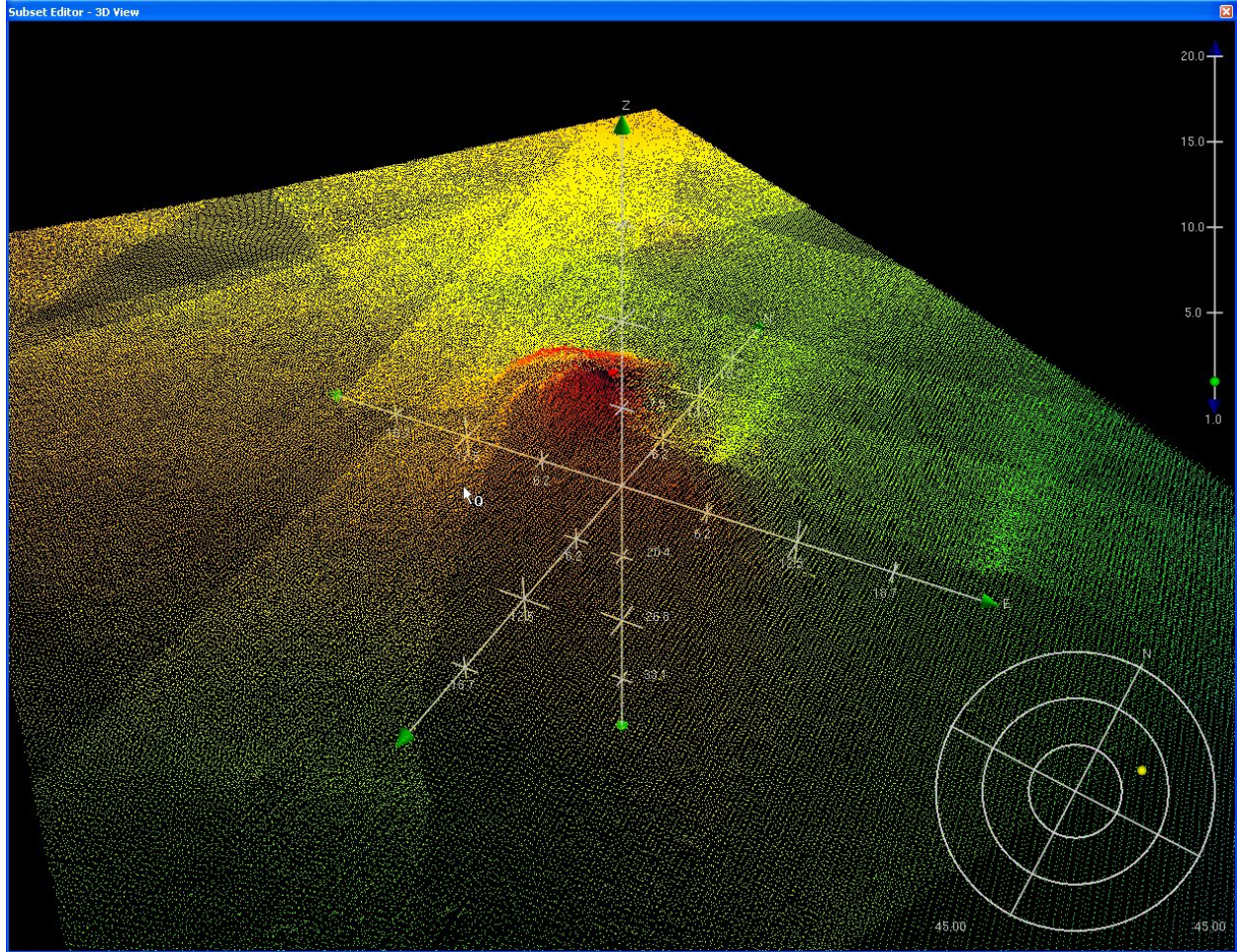


Figure 1.1.3



## 1.2) Profile/Beam - 198/69 from h12257 / nrt5\_s3002\_em3002\_mbes / 2010-224 / 000\_1753a

### Primary Feature for AWOIS Item #14791

**Search Position:** 44° 52' 48.6" N, 067° 08' 11.4" W  
**Historical Depth:** [None]  
**Search Radius:** 150  
**Search Technique:** S2, ES, MB, SD  
**Technique Notes:** The survey area for this wreck is bounded by a 150 meter radius, except, clockwise, from the west to the north of the wreck, which is to the 4 meter curve.

#### History Notes:

LNM 0910-- USCG 2010; A 38' F/V reported sunk between Mahar Pt. and Falls Is. approximate position 44°52.8' - 67°08.19'. Charted as a submerged dangerous wreck with "PA". (Entered CEH 5/2010)

### Survey Summary

**Survey Position:** 44° 52' 46.6" N, 067° 08' 24.2" W  
**Least Depth:** 14.88 m (= 48.82 ft = 8.136 fm = 8 fm 0.82 ft)  
**TPU ( $\pm 1.96\sigma$ ):** THU (TPEh)  $\pm 1.988$  m ; TVU (TPEv)  $\pm 0.297$  m  
**Timestamp:** 2010-224.17:53:40.651 (08/12/2010)  
**Survey Line:** h12257 / nrt5\_s3002\_em3002\_mbes / 2010-224 / 000\_1753a  
**Profile/Beam:** 198/69  
**Charts Affected:** 13394\_1, 13003\_1

#### Remarks:

No feature was found within the search radius. This wreck symbol has been deleted via LNM 05/11, District 1.

Diver investigation found the remains of the "MISS PRISS" 130 m outside of the search radius. For more reference see attached correspondence from Capt. Robert J. Peacock (Quoddy Pilots).

### Feature Correlation

Address	Feature	Range	Azimuth	Status
h12257/nrt5_s3002_em3002_mbes/2010-224/000_1753a	198/69	0.00	000.0	Primary
AWOIS_EXPORT	AWOIS # 14791	286.71	257.8	Secondary (grouped)



## Hydrographer Recommendations

Remove Position Approximate notation, update position for AWOIS item 14791.

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

8fm (13003\_1)

14.9m (13394\_1)

## S-57 Data

**Geo object 1:** Wreck (WRECKS)  
**Attributes:** SORDAT - 20100927  
SORIND - US,US,graph,H12257  
TECSOU - 3:found by multi-beam  
VALSOU - 14.880 m  
WATLEV - 3:always under water/submerged

**Office Notes:** Concur with clarification. Remove wreck from chart. Wreck is located directly adjacent to a 4.8 meter rock. Due to chart scale and navigational insignificance of the wreck relative to the rock, the wreck should not be charted.

### Feature Images

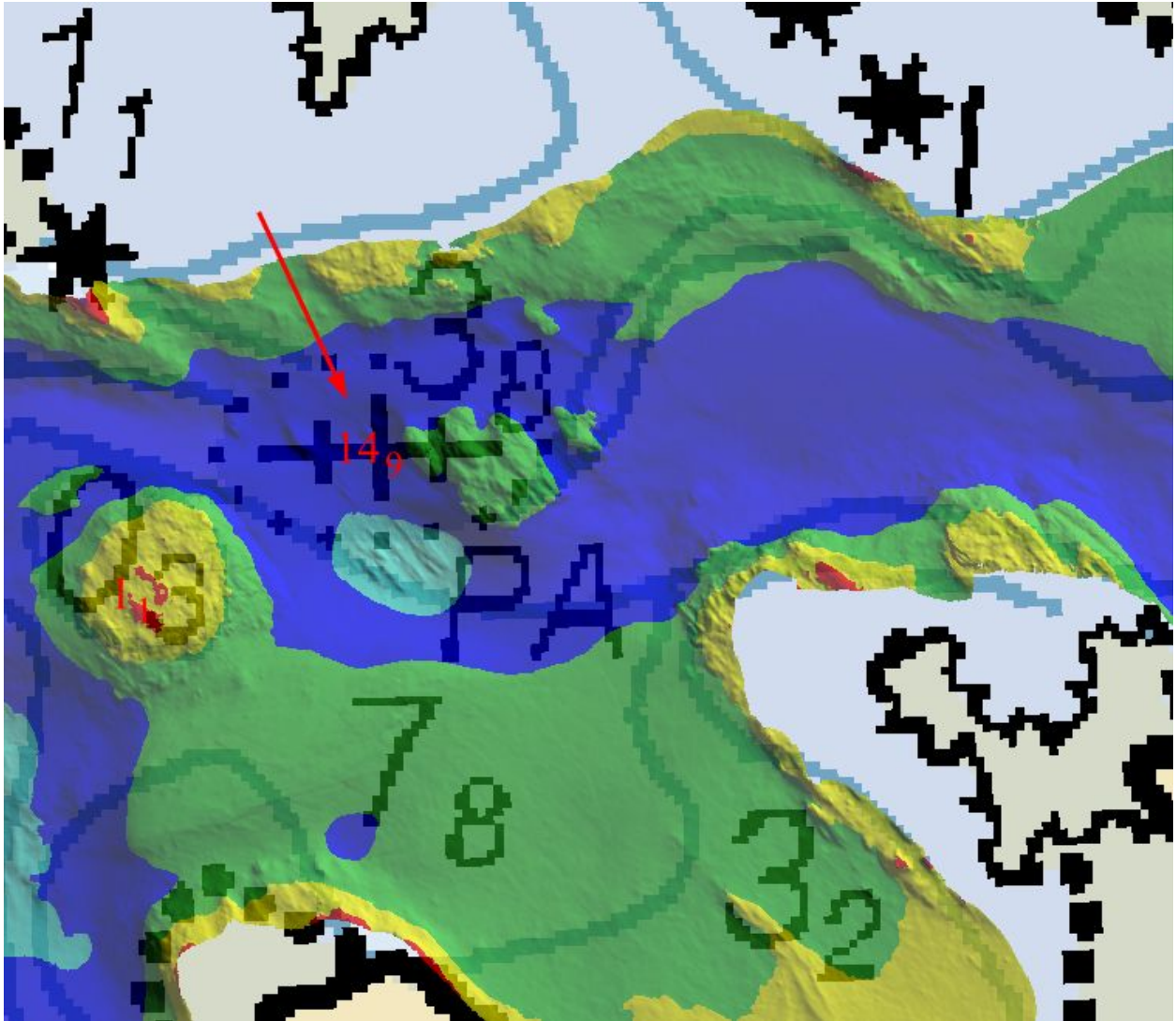


Figure 1.2.1

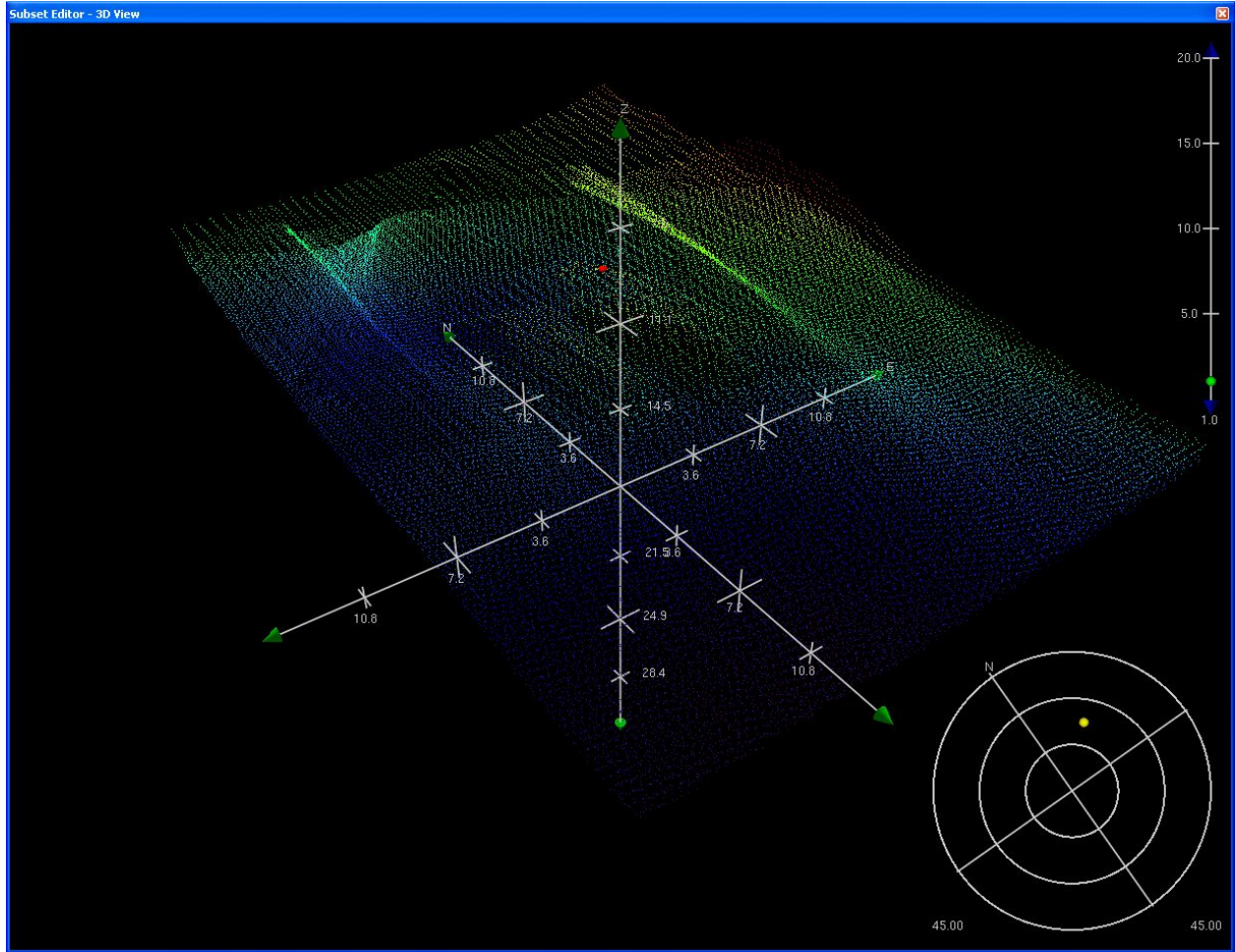


Figure 1.2.2



---

## Wreck dive today

1 message

---

**Capt. Bob Peacock** <qpilot@maineline.net>

Thu, Jan 20, 2011 at 5:23 PM

Reply-To: qpilot@maineline.net

To: Larry Krepp <Lawrence.T.Krepp@noaa.gov>, Todd A Haupt <Todd.A.Haupt@noaa.gov>, Kathryn Ries <Kathryn.Ries@noaa.gov>, John Lowell <John.Lowell@noaa.gov>

Cc: Howard Danley <Howard.Danley@noaa.gov>, Dawn Forsythe <Dawn.Forsythe@noaa.gov>, Nicholas A Forfinski <Nicholas.A.Forfinski@noaa.gov>, Matt Andring <andrinma@gmail.com>, "Kelly, Gail (Snowe)" <Gail\_Kelly@snowe.senate.gov>, "Woodcock, Carol (Collins)" <Carol\_Woodcock@collins.senate.gov>, Matthew.Jaskoski@noaa.gov, Matt Wingate <matt.wingate@noaa.gov>, James.B.McPherson@uscg.mil, Brierley.K.Ostrander@uscg.mil, Derek.M.Dostie@uscg.mil, Garry Moores <fvexaminer@earthlink.net>, "Rousseau, Kevin" <Kevin.Rousseau@maine.gov>, michael.k.sams@uscg.mil, Austin.J.Olmstead@uscg.mil, Gerald Morrison <morrison421@roadrunner.com>, Alan.H.Moore2@uscg.mil, Brian.S.Gilda@uscg.mil, Jason.A.Smilie@uscg.mil, Michael.J.Annis@noaa.gov, Vitad.Pradith@noaa.gov, gesture162@gmail.com, "Dent, David L" <David.L.Dent@maine.gov>, Garry Moores <fvexaminer@maineline.net>, Terence.O.Leahy@uscg.mil, russell.wright@maine.gov, wrightjr9804@roadrunner.com

To all:

The Maine State Police Dive Team with members from the Maine Marine Patrol held a training exercise today in Cobscook Bay from the DMR Patrol Vessel MAINE.

The exercise included 13 MSP and DMR divers and MPO boat Specialists. The range of tide today was 23.4' and the dives took place at high water "slack". The MAINE dropped anchors directly onto the wreck using the NOAA NRT5 provided position.

Several members of the team (including Dave Dent) were able to get to the wreck and identify it as the MISS PRISS.

The MISS PRISS sank one year ago on January 23, 2010 after hitting a ledge 0.34 nm east side of Roaring Bull Rock in the Reversing Falls. The wreck ended up 0.4 nm on the west side of the Roaring Bull.

Fortunately, Captain Kirby Schnek used a 16' skiff and with the help of the dragger NASTY TWO crew was able to rescue Captain William Feltner, Jr of Lubec and crewmen Carl Sizemore and Evan Matthews with no injuries.

MPO Dave Dent asked me to especially thank CDR Krepp, Nick Forfinski and the NRT5 team for such accurate work and for continuing the work after the field survey was completed.

The Coast Guard has been notified of the position and LTJG Terence Leahy advises the USCG is putting out a Local Notice to Mariner immediately.

Dragging is not allowed at the present time in the area of the wreck for conservation purposes. If there is additional work on the wreck I will keep you advised.

I have attached a short 20 second video taken on the January 14<sup>th</sup> survey showing the aqua blue hull. As can be clearly seen, the current is extremely strong.

Many thanks to the Maine State Police Dive Team Troopers and the Maine Department of Marine Resources Officers for their excellent follow-up on NOAA NRT5's work.

Most respectfully,

Bob

[Capt. Bob Peacock](#)

5/11/2011

Gmail - Wreck dive today

Mobile [207-263-6403](tel:207-263-6403)

Office [207-733-5556](tel:207-733-5556)

[qpilot@maineline.net](mailto:qpilot@maineline.net)



Quoddy Pilots **USA**



**MISS PRISS DMR Survey 14 JAN 2011 MPEG 2.mpg**  
3613K

---

### 1.3) AWOIS #14792 - UNKNOWN

#### No Primary Survey Feature for this AWOIS Item

**Search Position:** 44° 53' 08.6" N, 067° 07' 31.6" W  
**Historical Depth:** [None]  
**Search Radius:** 150  
**Search Technique:** S2, ES, MB, SD  
**Technique Notes:** The search area is bounded by 150 meters to the Northeast and Southwest of location of the wreck and is bounded to the East and West to the 4 meter curve or as far as safety permits.

#### History Notes:

LNM 0210-- USCG 2010; A 38' F/V reported sunk between Mahar Pt. and Falls Is. approximate position 44°53.143' - 67°07.527'. Charted as a submerged dangerous wreck with "PA". (entered CEH 5/2010)

### Survey Summary

**Charts Affected:** 13394\_1, 13003\_1

#### Remarks:

AWOIS Item 14792 not found within search radius, covered with 100% multibeam.

### Feature Correlation

Address	Feature	Range	Azimuth	Status
AWOIS_EXPORT	AWOIS # 14792	0.00	000.0	Primary

### Hydrographer Recommendations

Recommend removal from chart.

### S-57 Data

[None]

Office Notes: Concur, remove charted wreck.



### Feature Images

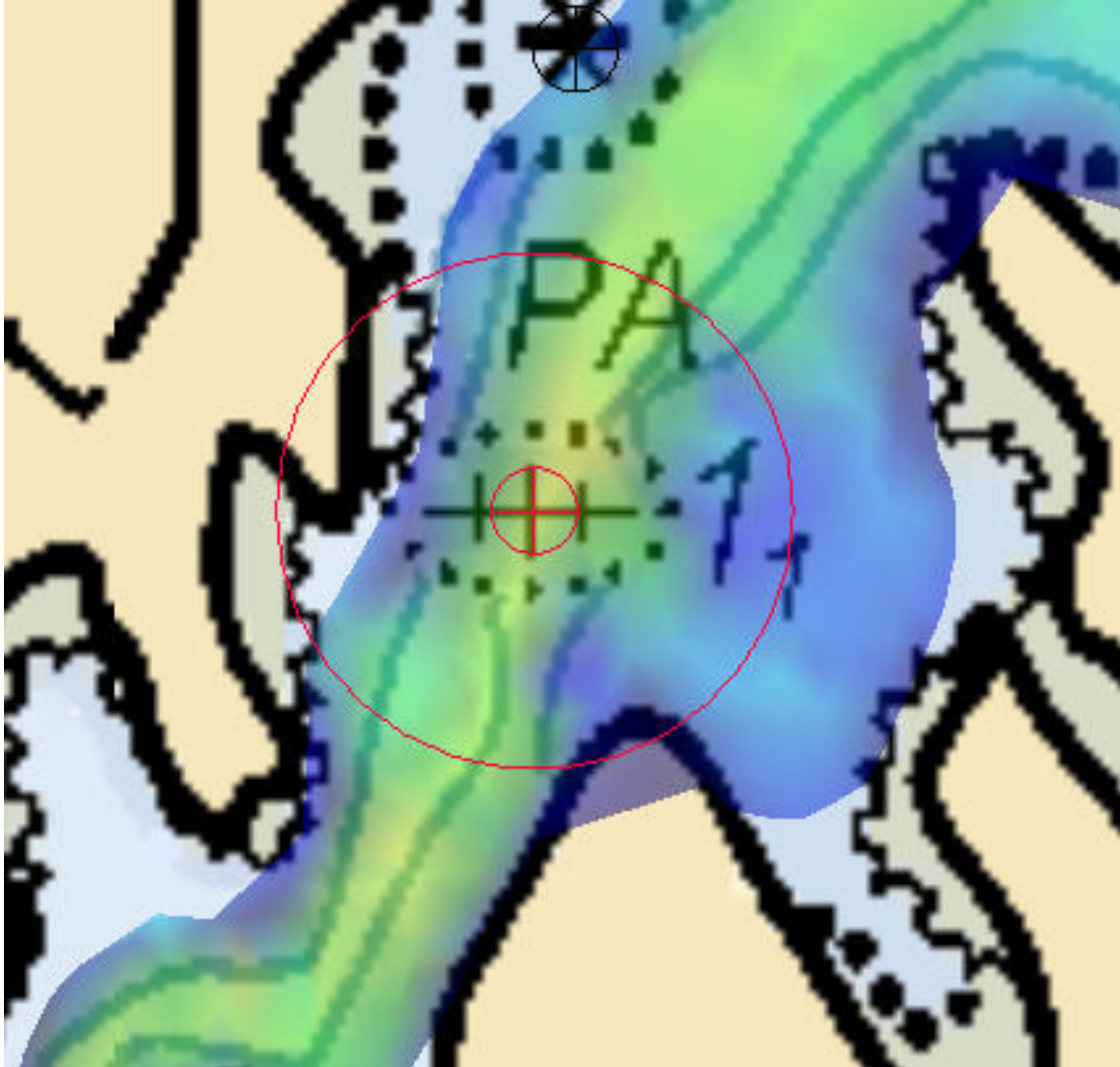


Figure 1.3.1



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
National Ocean Service  
Silver Spring, Maryland 20910

**TIDE NOTE FOR HYDROGRAPHIC SURVEY**

**DATE :** December 8, 2010

**HYDROGRAPHIC BRANCH:** Atlantic  
**HYDROGRAPHIC PROJECT:** OPR-A375-NRT5-2010  
**HYDROGRAPHIC SHEET:** H12257

**LOCALITY:** Falls Island, Dennys Bay, and Whiting Bay, ME  
**TIME PERIOD:** July 29 - September 27, 2010

**TIDE STATION USED:** 841-0140 Eastport, ME  
Lat. 44° 54.3' N Long. 66° 59.0' W  
**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 0.000 meters  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 5.729 meters

**TIDE STATION USED:** 841-0864 Gravelly Point, ME  
Lat. 44° 49.4' N Long. 67° 09.1' W  
**PLANE OF REFERENCE (MEAN LOWER LOW WATER):** 0.000 meters  
**HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE:** 5.555 meters

**REMARKS: RECOMMENDED ZONING**

Preliminary zoning is accepted as the final zoning for project OPR-A375-NRT5-2010.

Please use the zoning file "A375NRT52010CORP" submitted with the project instructions for Eastport, ME. Zones ME17, ME23, ME24, ME25, ME26, ME27, ME29, ME30, ME31, ME32, ME33, ME34, ME35, ME36, ME37, ME38, ME39, ME40, ME41, ME42, ME43, ME44, ME45, & ME46 are the applicable zones for H12257.

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

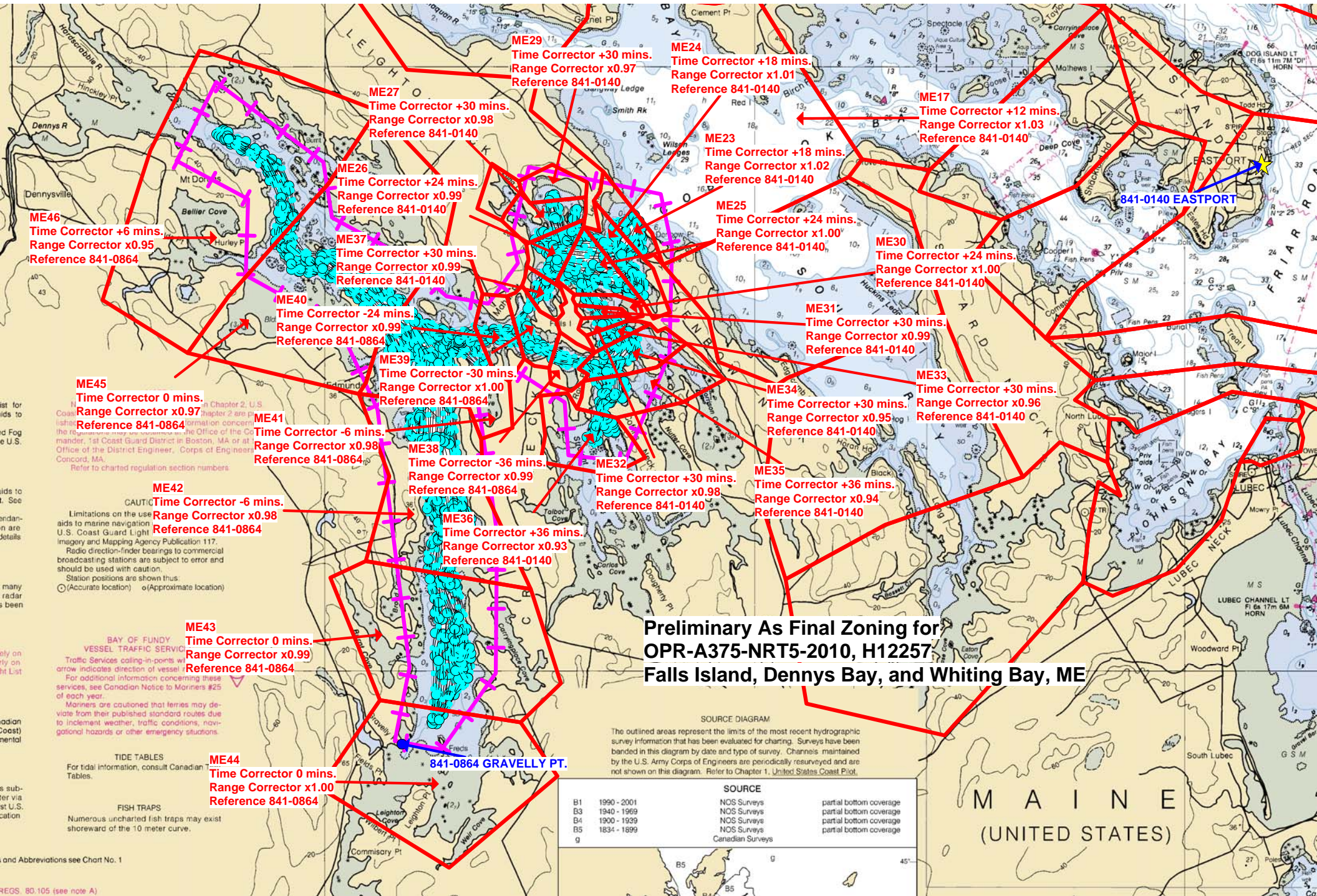
**Peter J. Stone**

Digitally signed by Peter J. Stone  
DN: cn=Peter J. Stone, o=NOAA/NOS/CO-OPS,  
ou=Oceanographic Division,  
email=peter.stone@noaa.gov, c=US  
Date: 2010.12.13 17:36:44 -05'00'

CHIEF, OCEANOGRAPHIC DIVISION







**Preliminary As Final Zoning for  
OPR-A375-NRT5-2010, H12257  
Falls Island, Dennys Bay, and Whiting Bay, ME**

**SOURCE DIAGRAM**

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

	SOURCE	
B1	1990 - 2001	NOS Surveys
B3	1940 - 1969	NOS Surveys
B4	1900 - 1939	NOS Surveys
B5	1834 - 1899	NOS Surveys
g		Canadian Surveys

partial bottom coverage
partial bottom coverage
partial bottom coverage
partial bottom coverage

**M A I N E**  
(UNITED STATES)

CAUTION  
Limitations on the use of aids to marine navigation...  
Refer to charted regulation section numbers.

BAY OF FUNDY  
VESSEL TRAFFIC SERVICE  
Traffic Services calling in-ports will...  
For additional information concerning these services, see Canadian Notice to Mariners #25 of each year.

TIDE TABLES  
For tidal information, consult Canadian Tables.

FISH TRAPS  
Numerous uncharted fish traps may exist shoreward of the 10 meter curve.

and Abbreviations see Chart No. 1

REGS. 80.105 (see note A)



# PHB Compilation Log

## General Survey Info

Survey Number	H12257	Field Unit	NRT5	State	ME	UTM Zone	19N
Project Number	OPR-A375-NRT5-10	Project Name (Locality)	Eastport, ME				
Start Date	07/29/2010	Sublocality	Falls Island, Dennys Bay and Whiting Bay				
End Date	09/27/2010	Survey Scale	10,000	Compilation Scale	50,000		

### Affected Raster Charts

Chart	KAPP	Scale	Edition	Date	NTM Date
13394	2895	1:50,000	3rd	July, 2002	10/01/2011



### Affected Electronic Charts

ENC	Scale
US5ME55M	50,000



### Spatial Reference

Horizontal Datum	WGS84
Coordinate System	LLDG
Sounding Datum	MLLW
Vertical Datum	MHW

### Junction Surveys

Survey Number	Survey Date	Location Relative to Current Survey
H12258	10/13/2010	NE

# PHB Compilation Log

## Processing Info

HCell Compiler

Toshi Wozumi

QC Reviewer

Peter Holmberg

SAR Reviewer

Joe Tegeder

### Source Surfaces

Resolution	File Name
2 m	H12257_2m_Final_Combined_office.czar
Add Surface	Remove Surface

### Supporting Documents

Name	Version
Specs and Deliverables	April 2011
HCell Specs	6.1
Add Doc	Remove Doc

### Software Used

Software	Version, HF	Used For
CARIS HIPS	7.0 SP2 HF8	SAR Review. Inspection of Combined BASE Surfaces.
Pydro	11.8	SAR Review. Generation of Features Reports.
CARIS BASE Editor	3.2 SP2	Creation of soundings and bathy-derived features, meta area object, and Blue Notes; Survey evaluation and verification; Initial HCell assembly.
CARIS S-57 Composer	2.2 SP1HF3	Final compilation of the HCell, correct geometry and build topology, apply final attributes, export the HCell, and QA.
CARIS Plot Composer	5.1 SP 1	Generate plots of CARIS Session files used for QC.
HydroService, dKart Inspector	6.0	Validation check of the base cell file.
CARIS Plot Composer	5.1 SP 2	Generate plots of CARIS Session files used for QC.
		Validation check of the base cell file.
Fugawi View ENC	1.0.0.3	Independent inspection of final HCells using COTS viewer.

## Product Info

### Deliverables

Chart Scale HCell	H12257_CS.000
Survey Scale HCell	H12257_SS.000
HCell Report for MCD	H12257_HR.pdf
Feature Listing	H12257_FL.txt
Descriptive Report	H12257_DR.pdf
Survey Outline	H12257_Outline.gml and .xsd

### Horizontal and Vertical Units

During creation of the HCell all soundings and features are maintained in metric units with as high precision as possible. Depth units for soundings measured with sonar maintain millimeter precision. Depths on rocks above MLLW and heights on islets above MHW are typically measured with range finder, so precision is less.

Depth Units (DUNI)	Meters
Height Units (HUNI)	Meters
Positional Units (PUNI)	Meters

# PHB Compilation Log

Radius Setting		
A survey-scale sounding (SOUNDG) feature object layer was built from the Combined Surface in CARIS BASE Editor. A shoal-biased selection was made at survey scale using a Radius Table file with values shown below.		
Radius (mm)	Min. Depth (m)	Max Depth (m)
3	0	10
4	10	20
4.5	20	50
5	50	500

Contours			
Depth contours at the intervals on the largest scale chart are included in the SS HCell for MCD raster charting division to use for guidance in creating chart contours. With the exception of the zero contours included in the *_CS file, contours have not been deconflicted against shoreline features, soundings and hydrography.			
Charted Contours	Metric Equivalent	Metric- NOAA Rounded	Chart Contours - NOAA Rounded
0	0	0	0.075
2	2	2	2.075
5	5	5	5.075
10	10	10	10.075
20	20	20	20.075
30	30	30	30.75
Add Contour	Remove Contour		

## Additional Info

Contact Information	
Inquiries regarding this HCell content or construction should be directed to:	
HCell Compiler	Toshi Wozumi
Phone Number	206-853-6773
Email	toshi.wozumi@noaa.gov

Compilation Comments
Charted soundings converted from LLWLT to MLLW are provided as blue notes outside the survey limits.

APPROVAL SHEET  
H12257

Initial Approvals:

The survey evaluation and verification has been conducted according to branch processing procedures and the HCell compiled per the latest OCS HCell Specifications.

The survey and associated records have been inspected with regard to survey coverage, delineation of the depth curves, development of critical depths, S-57 classification and attribution of soundings and features, cartographic characterization, and verification or disproof of charted data within the survey limits. The survey records and digital data comply with OCS requirements except where noted in the Descriptive Report and are adequate to supersede prior surveys and nautical charts in the common area.

I have reviewed the HCell, accompanying data, and reports. This survey and accompanying digital data meet or exceed OCS requirements and standards for products in support of nautical charting except where noted in the Descriptive Report.