

H12258

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. H12258

LOCALITY

State Maine

General Locality Eastport

Sublocality Cobscook 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;">HYDROGRAPHIC TITLE SHEET</p>	<p>REGISTRY No</p> <p style="text-align: center;">H12258</p>
<p>INSTRUCTIONS – 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 </u></p> <hr/> <p>Sub-Locality <u> Cobscook Bay </u></p> <hr/> <p>Scale <u> 1:10,000 </u> Date of Survey <u> July 14 to October 13, 2010 </u></p> <p>Instructions dated <u> 5/27/2010 </u> Project No. <u> OPR-A375-NRT5-10 </u></p> <p>Vessel <u> S3002 (NOAA NRT-5) </u></p> <hr/> <p>Chief of party <u> LTJG Matthew J. Nardi, NOAA </u></p> <p>Surveyed by <u> NOAA Navigation Response Team 5 Personnel </u></p> <p>Soundings by <u> Kongsberg EM 3002 multibeam echosounder </u></p> <p>SAR by <u> Adam Argento </u> Compilation by <u> Cathleen Barry </u></p> <p>Soundings compiled in <u> Meters </u></p>	
<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 http://www.ngdc.noaa.gov/. </u></p>	

DESCRIPTIVE REPORT

to accompany
HYDROGRAPHIC SURVEY H12258
OPR-A375-NRT5-10
Scale of Survey: 1:10,000
July - October 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. H12258 covered an area of approximately 6.6 nm², from East Bay in the north to South Bay in the south, eastward from Denbow Point and westward from Grove Point.

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 H12258 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 Hydro 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	396.2 nm
Mainscheme single beam sonar/side scan sonar	0 nm
Crosslines (single beam/multibeam)	0 nm/17.4 nm
Developments (single beam/multibeam)	0 nm/0 nm
Shoreline/nearshore investigation	0 nm
# of bottom samples	18
# of items requiring additional effort	0

Total square nautical miles	6.6
Dates of data acquisition	July 14, 15, 19, 21, 23, 26 August 12, 24, 25 September 1, 2, 7, 20, 24, 29 October 11-13

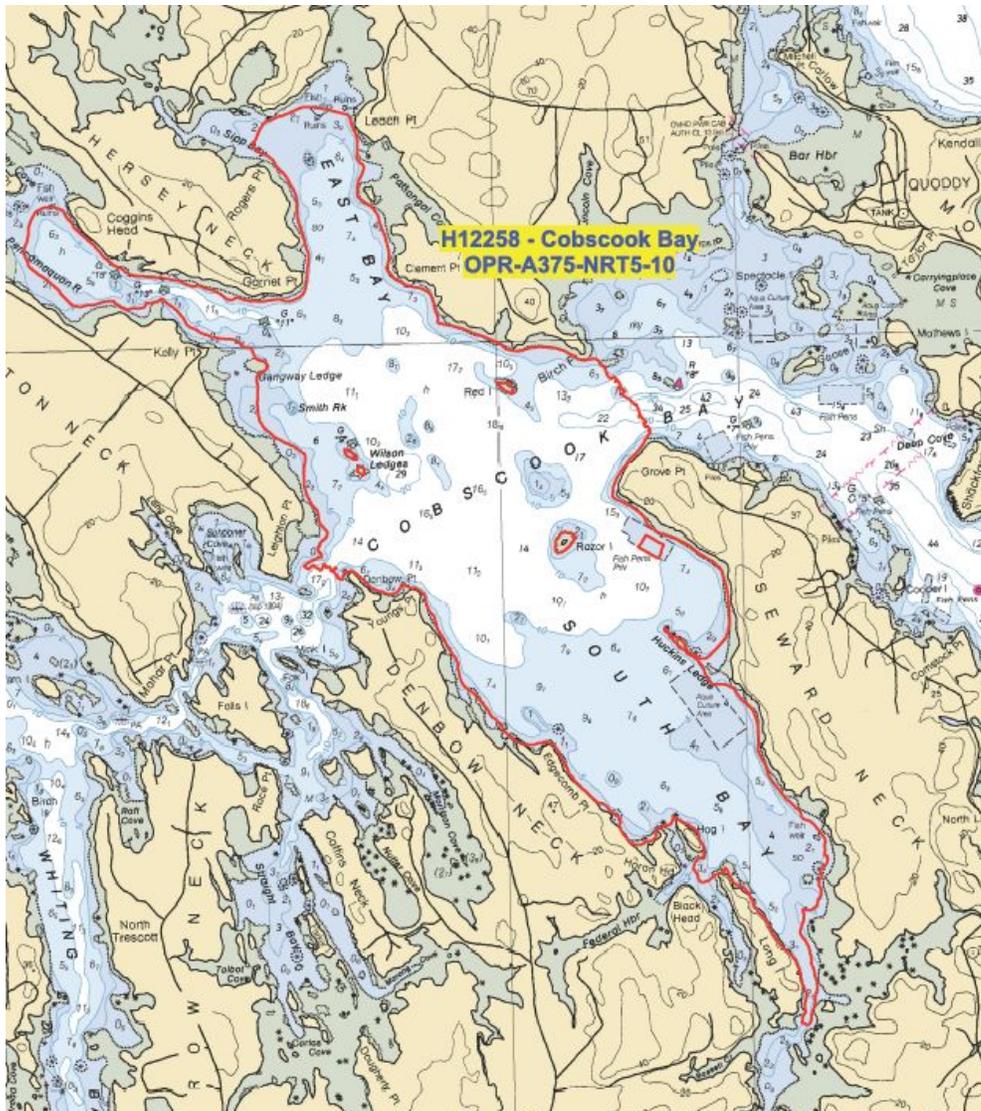


Figure 1: H12258 Survey Area

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 H12258.

B.2.2 Single Beam Quality Control

Single Beam Sonar data were not acquired as part of H12258.

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 5.729m 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 2, the maximum vertical offsets were up to 1 meter. In most cases, vertical offsets were less than 0.5 meters.¹ 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.

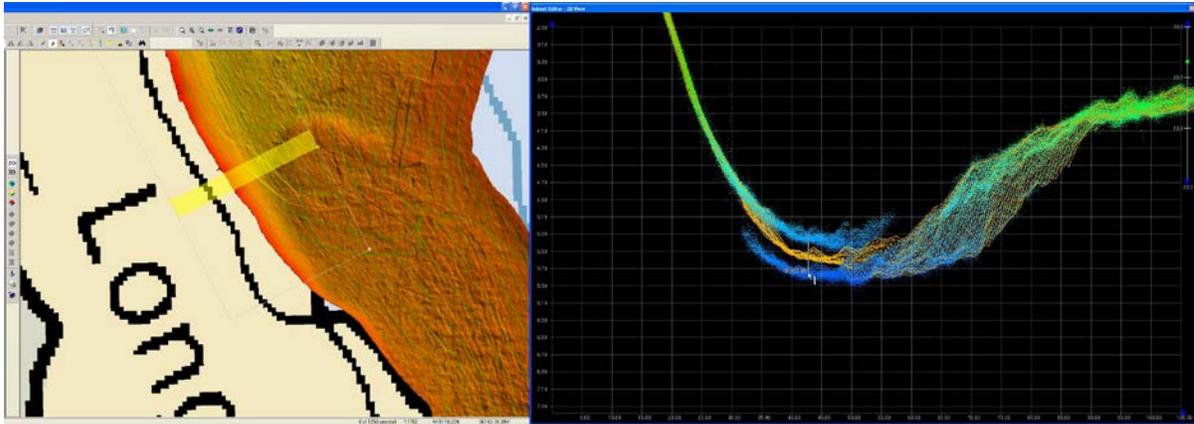


Figure 2: Line 000_1611C from DN 221 tidal offset from concurrent coverage.

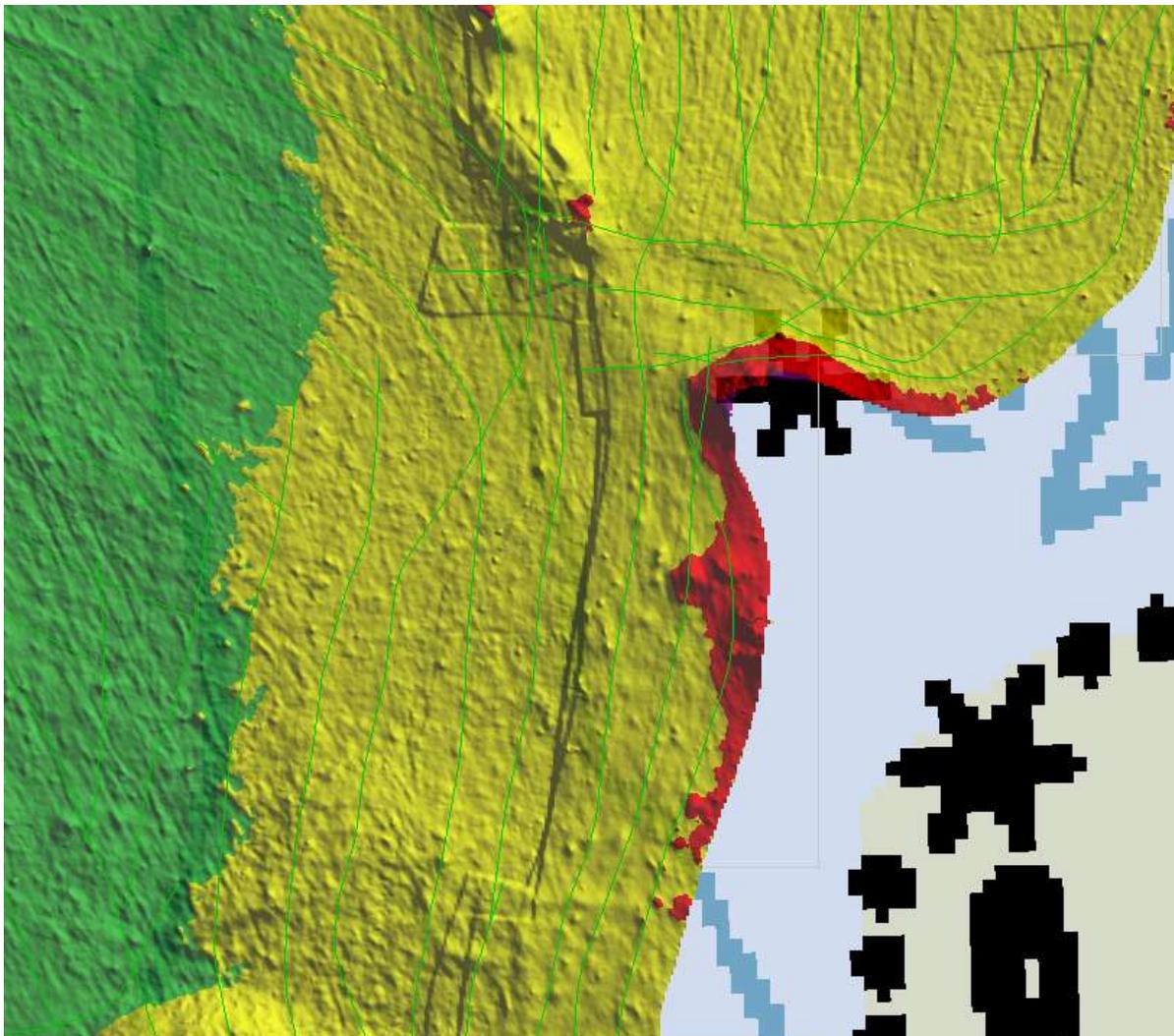


Figure 3: Several tidal offsets from concurrent coverage in approximate position 44°51.58'N, 067°02.59'W. Surface exaggerated 10x.

Holidays

There were two notable gaps in the coverage of H12258, 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 have shoaling trends, but the hydrographer is confident that the least depths on features in the area were ensonified. Backscatter data for these areas were also examined for additional undetected objects or shoaling trends and none were found.²

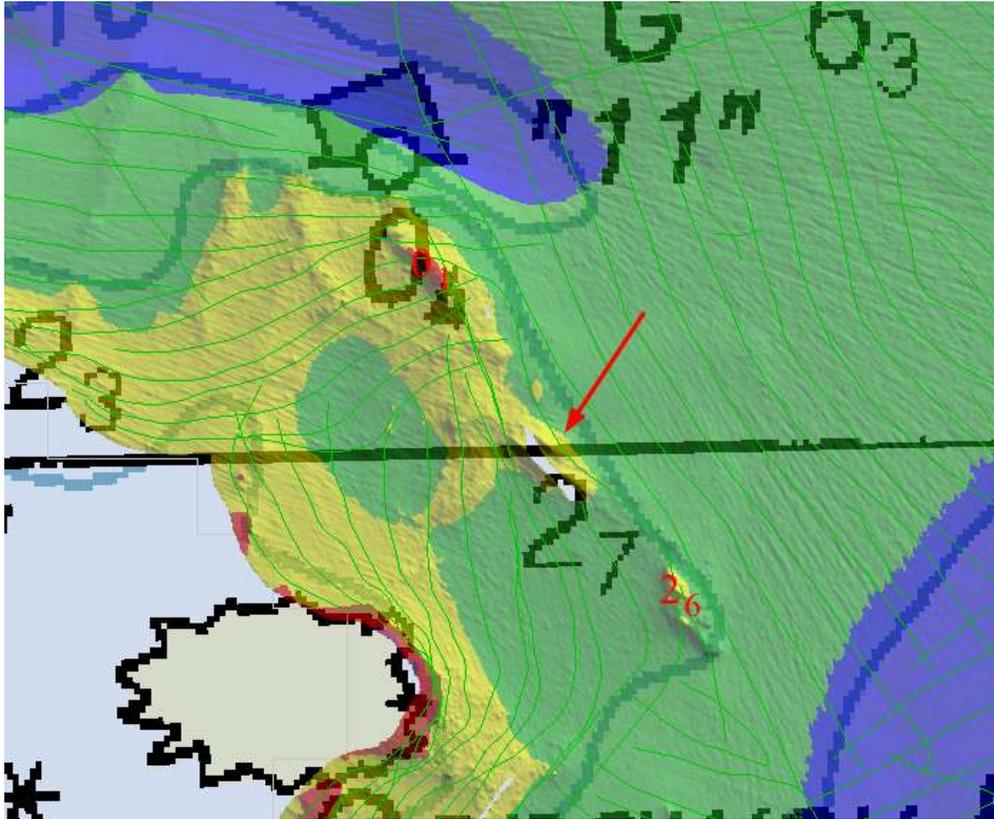


Figure 4: Gap in coverage in approximate position 44°55.00'N, 067°06.81'W

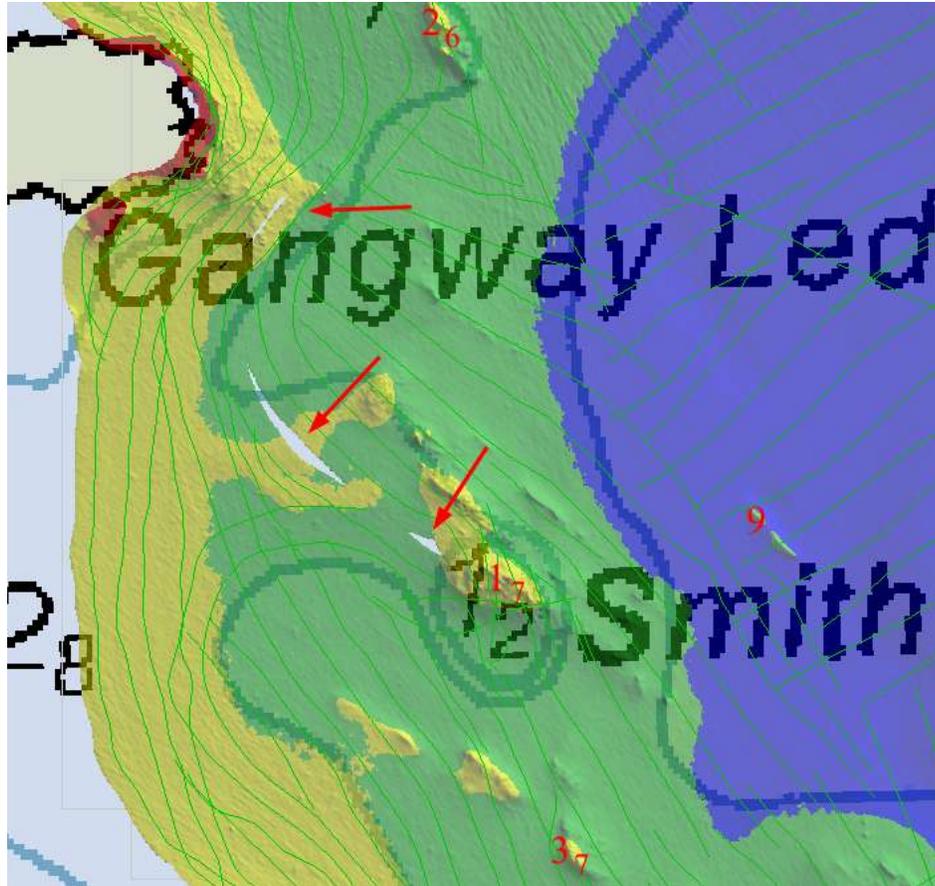


Figure 5: Gap in coverage in the vicinity of Smith Rock in approximate position 44°54.72'N 067°06.83'W

Fish Traps

There were several remnants of previous fish traps evident in the surface, as depicted below in figure 6. It is clear that dragging has occurred in and around these remnants and they are not a danger to navigation. Although the sediment buildup reached a maximum of 0.3m in some areas, in no case were any fish trap remains the shoal sounding in the area. The hydrographer recommends leaving all fish trap remains off the chart and updating soundings and contours per the digital data.³

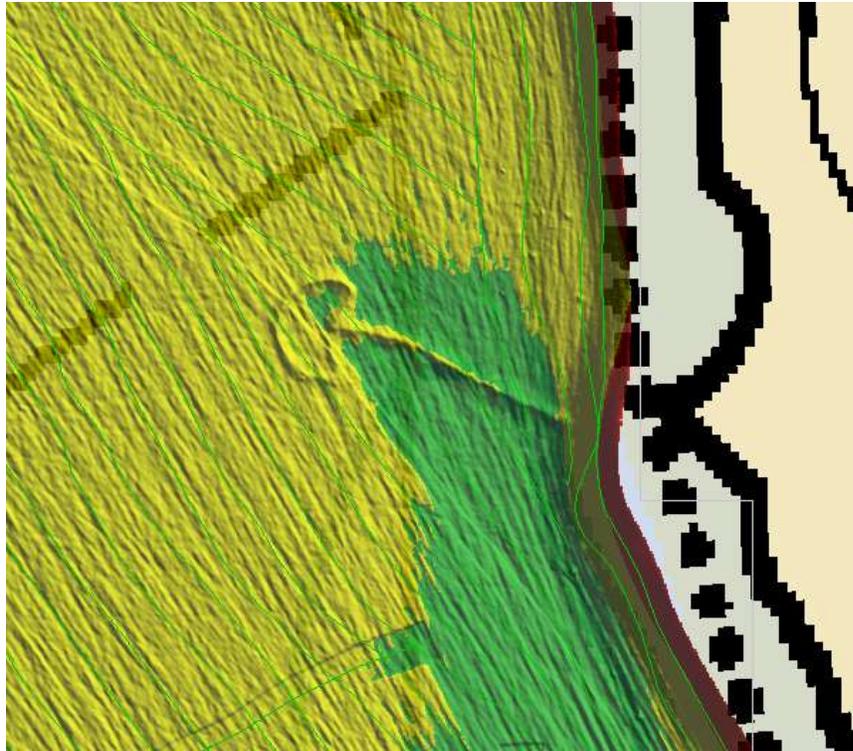


Figure 6: Remnants of fish trap in approximate position 44° 52.60'N 067° 03.03'W.

B.2.4 Total Propagated Error

Total Propagated Error (TPE) parameters for sound speed and tide data for H12258 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: H12258 Bathymetry surfaces

Fieldsheet	Surface/Mosaic Name	Grid Type	Resolution
H12258	H12258_MBES_1m	Source CUBE	1 m
H12258	H12258_MBES_1m_Final_0to22	Finalized CUBE	1 m
H12258	H12258_MBES_2m	Source CUBE	2m
H12258	H12258_MBES_2m_Final_20to44	Finalized CUBE	2m
H12258	H12258_MBES_Final_Combined	Combined CUBE	2m

B.2.6 Crosslines

For this survey, 17.4 nm of crosslines (4.39% of mainscheme lines) were acquired. A visual examination of approximately 15% of checkpoint areas showed excellent agreement between crosslines and mainscheme lines within a maximum of 0.3 meters divergence.

B.2.7 Junctions

Survey H12258 junctions with H12257 and H12259, which are sheets A and C, respectively, 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 H12258 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 H12258 and their associated resolutions are listed in Table 4. 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 H12258.

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 H12258 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).⁴ The operating National Water Level Observation Network (NWLON) stations at Eastport, ME (841-0140) 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 H12258 were received on December 08, 2010.⁵ 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 H12258. 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 H12258_POSSPAC_Processing_Log.xlsx contained in the Separates 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 ENCs (electronic navigation charts) are affected by H12258:

Table 5: RNCs and ENCs affected by H12258

RNC	Edition	Edition Date	Scale
13394 ⁶	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.⁷ The Hydrographer has determined that bottom coverage requirements have been met and data accuracy meets requirements specified by the HSSD. All soundings from H12258 are adequate to supersede prior surveys and charted depths in their common areas.

D.1.2 Dangers to Navigation

There were no DToNs submitted for survey H12258.

D.1.3 AWOIS Items

There were no AWOIS items within the survey limits of H12258.

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 H12258.pss and summarized in the feature report contained in Appendix II. One (1) redigitized area feature is contained in ...H12258\PSS\FeatureManagement\H12258_Area_Features.000.⁸ This feature was created in Hypack ENC Editor due to the lack of ability to create area features in Pydro. The feature is an improperly charted Fish Trap that was digitized using observations from the field and tracklines from the vessel navigation. All charted items not specifically addressed in Appendix II are recommended to be retained as charted by the hydrographer.⁹

D.2 ADDITIONAL RESULTS

D.2.1 Aids to Navigation

All charted AToNs within the survey limits of H12258 were visually verified and found to be serving their intended purpose. No AToNs were specifically assigned for positioning as part of H12258.

D.2.2 Bridges and Overhead Cables

There are no charted bridges or overhead cables within the survey limits of H12258 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

18 bottom samples were collected during the survey.¹⁰ Details and photos can be found in the Survey Features Report (Appendix II) and in H12258.pss.

E. APPROVAL SHEET

**OPR-A375-NRT5-10
H12258
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
2011.06.15 09:32:03 -04'00'

Matthew Nardi
NRT-5 Team Lead

Revisions and Corrections performed during office processing and certification.

¹ Some tidal errors in excess of the tidal error budget of 45cm exist, primarily in the southern half of the survey area. An improved zoning file was requested from COOPS, but no better solution was produced. In cases in which depth discrepancies occurred due to tides, shoal depths were honored in the BASE Surfaces. Given the good agreement with crossline data, the depths are determined to be suitable for charting.

² The gaps in coverage were found to be insignificant in terms of charting.

³ To alert the mariner to the presence of fish weir remnants on the seafloor which might snag anchoring devices or fishing tackle, fish traps that were not observed during field operations, but which are evident on the seafloor, were compiled as FSHFAC, CATFIF=fish weirs, STATUS=disused.

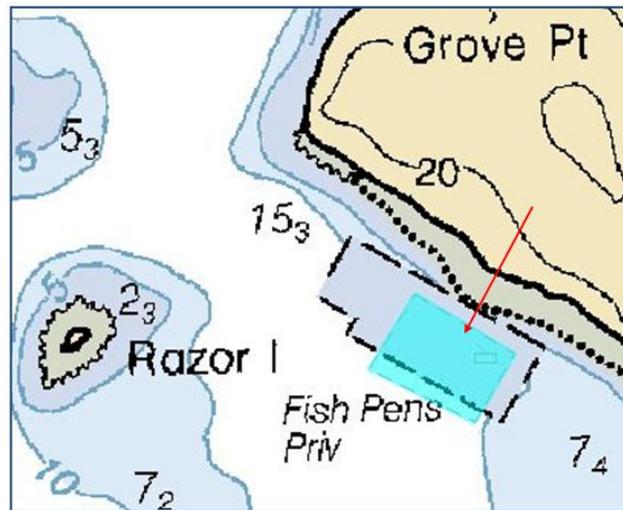
⁴ The tidal datum used for this project is Mean Lower Low Water (MLLW). However, chart 13394, which covers both the US and Canada, is compiled in Lower Low Water Large Tide (LLWLT). MCD plans to convert the US side of this chart to MLLW upon addition of the new survey data. The chart update product was compiled to the MLLW datum.

⁵ The Final Tide Note is appended to this report.

⁶ During office processing H12258 was compared to chart 13394, 3rd Edition, 7/1/2002, NTM Date 3/31/2012.

⁷ Appendix II, the Survey Features Report, is not appended to this report as it does not include all features compiled to the H12258 chart update product. Appendix II is a summary of features collected during the limited shoreline verification and reconnaissance performed for the survey. While all field submitted features have been examined during office processing, only those verified features appropriate for chart scale have been applied to the chart update product. When surveyed features were applied, some modifications, for instance, to depict area objects as points, may have been made to best accommodate chart scale. Additional features, such as rocks, ledges, rocky seabeds and foul areas, may have been digitized referencing the BASE Surface.

⁸ Because fish farms are federally permitted, and their boundaries are maintained by the Army Corp of Engineers, this feature was retained as charted despite the change to the field surveyed fish pen extents. (Turquoise area in the image below.)



⁹ All recommendations made in the Features Report, or otherwise implied by the Hydrographer, were considered during compilation of the HCell chart update product, but not all recommendations were necessarily applied.

¹⁰ Seventeen of the eighteen bottom samples collected were applied to the HCell chart update product. One was removed because its nature conflicted with a rocky seabed area it falls within. If charted it might have introduced a potential for confusion on the part of the mariner.



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: H12258

LOCALITY: Cobscook Bay, Eastport, ME
TIME PERIOD: July 14 - October 13, 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

REMARKS: RECOMMENDED ZONING

Preliminary zoning is accepted as the final zoning for project OPR-A375-NRT5-2010, H12258, during the time period between July 14 and October 13, 2010.

Please use the zoning file "A375NRT52010CORP" submitted with the project instructions for Eastport, ME. Zones ME15,ME17,ME18, ME19,ME20,ME21,ME22,ME23,&ME24 are the applicable zones for H12258.

Refer to attachments for zoning information.

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

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 17:35:14 -05'00'

CHIEF, OCEANOGRAPHIC DIVISION



and elevations of
and elevations of
Mean Sea Level. In
to Higher High Water.

with
U.S. Coast
from Datum of 1983
to the World
10.286" Northward

NOTE A
regulations are published in Chapter 5, U.S.
to Mariners. Information concerning
may be obtained at the Office of the Com-
at the Coast Guard District in Boston, MA or at the
District Engineer, Corps of Engineers in
regional regulation section numbers.

CAUTION
on the use of radio signals as
Lighthouse, Light List and Maritime
Agency Publication 117.
stations are subject to error and
as shown thus:
() (Approximate location)

AY OF FUNDY
TRAFIC SERVICES
as sailing vessels with number,
direction of vessel movement,
position. Notices to Mariners 462
outlined that terms may differ
under, tolls, conditions, or
other emergency stations.

TIDE TABLES
information, consult Canadian Tide

NOTE A
regulations are published in Chapter 5, U.S.
to Mariners. Information concerning
may be obtained at the Office of the Com-
at the Coast Guard District in Boston, MA or at the
District Engineer, Corps of Engineers in
regional regulation section numbers.

CAUTION
on the use of radio signals as
Lighthouse, Light List and Maritime
Agency Publication 117.
stations are subject to error and
as shown thus:
() (Approximate location)

AY OF FUNDY
TRAFIC SERVICES
as sailing vessels with number,
direction of vessel movement,
position. Notices to Mariners 462
outlined that terms may differ
under, tolls, conditions, or
other emergency stations.

TIDE TABLES
information, consult Canadian Tide

Preliminary As Final Tidal Zoning for OPR-A375-NRT5-2010, H12258 Cobscook Bay, ME

ME18
Time Corrector +18 mins.
Range Corrector x1.03
Reference 841-0140

ME19
Time Corrector +12 mins.
Range Corrector x1.04
Reference 841-0140

ME15
Time Corrector +6 mins.
Range Corrector x1.03
Reference 841-0140

ME17
Time Corrector +12 mins.
Range Corrector x1.03
Reference 841-0140

ME23
Time Corrector +18 mins.
Range Corrector x1.02
Reference 841-0140

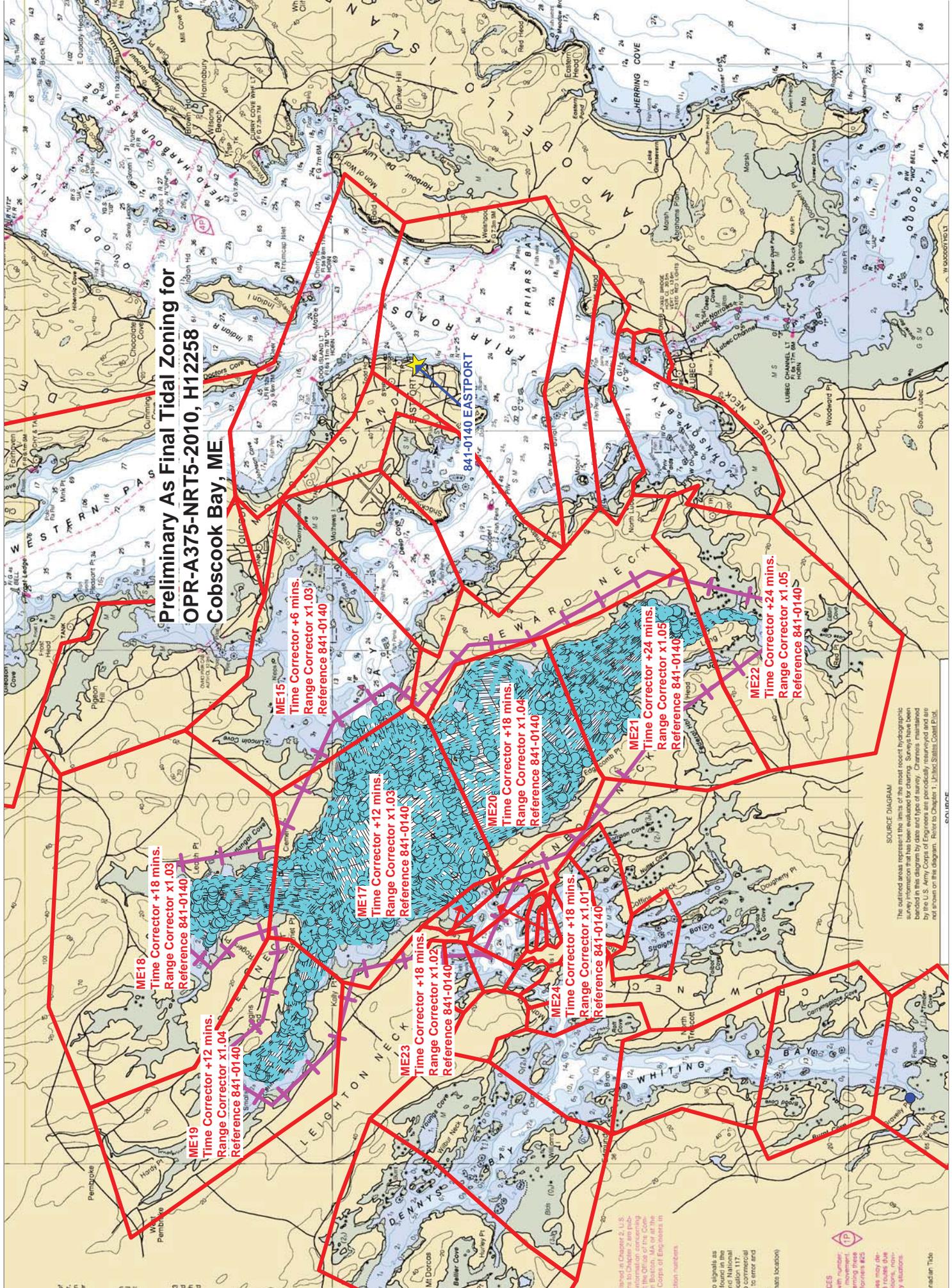
ME20
Time Corrector +18 mins.
Range Corrector x1.04
Reference 841-0140

ME24
Time Corrector +18 mins.
Range Corrector x1.01
Reference 841-0140

ME21
Time Corrector +24 mins.
Range Corrector x1.05
Reference 841-0140

ME22
Time Corrector +24 mins.
Range Corrector x1.05
Reference 841-0140

841-0140 EASTPORT



SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been conducted in the diagram by date and type of survey. Charting maintained by the U.S. Army Corps of Engineers and particularly surveyed areas are shown on the diagram. (Refer to Chapter 1, U.S. Coast and Geodetic Survey, SOURCE)

PHB Compilation Log

General Survey Info

Survey Number	H12258	Field Unit	NRT 5	State	Maine	UTM Zone	19N
Project Number	OPR-A375-NRT5-10	Project Name (Locality)	Eastport				
Start Date	07/14/2010	Sublocality	Cobscook Bay				
End Date	10/13/2010	Survey Scale	1:10,000	Compilation Scale	1:50,000		

Affected Raster Charts

Chart	KAPP	Scale	Edition	Date	NTM Date
13394	2895	1:50,000	3rd	07/01/2002	03/31/2012

Affected Electronic Charts

ENC	Scale
US5ME55M	Nav Purpose 5

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
H12257	09/27/2010	W
H12259	10/26/2010	E

Processing Info

SAR Reviewer	Adam Argento	HCell Compiler	Cathleen Barry	HCell Reviewer	Peter Holmberg
--------------	--------------	----------------	----------------	----------------	----------------

Source Surfaces

Resolution	File Name
2m	H12258_2m_Combined

Supporting Documents

Name	Version
Specs and Deleverables	April 2011
HCell Specs	6.1

PHB Compilation Log

Select Software Used	HydroService, dKart Inspector	
Software	Version, Hot Fix	Used For
CARIS HIPS	7.1	SAR Review. Inspection of Combined BASE Surfaces.
Pydro	11.8	SAR Review. Generation of Features Reports.
CARIS BASE Editor	3.2 SP2 HF2	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 SP1 HF3	Final compilation of the HCell, correct geometry and build topology, apply final attributes, export the HCell, and QA.
CARIS Plot Composer	5.1	Generate plots of CARIS Session files used for QC.
HydroService, dKart Inspector	6.0	Validation check of the base cell file.

Reset Table

Product Info

Deleverables

Chart Scale HCell	H12258_CS.000
Survey Scale HCell	H12258_SS.000
HCell Report for MCD	H12258_HR.pdf
Feature Listing	H12258_FL.txt
Descriptive Report	H12258_DR.pdf
Survey Outline	H12258_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 & Decimeters
Positional Units (PUNI)	Meters & Decimeters
Height Units (HUNI)	Meters

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
3	0	10
4	10	20
4.5	20	50
5	50	100

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	Charted NOAA Rounded
0		0.075	0.075
2		2.075	2.075
5		5.075	5.075
10		10.075	10.075
20		20.075	20.075
30		30.75	30.75

Add Contour

Remove Contour

PHB Compilation Log

Additional Info

Contact Information

Inquiries regarding this HCell content or construction should be directed to:

HCell Compiler

Cathleen Barry

Phone Number

206-526-6841

Email

cathleen.barry@noaa.gov

Compilation Comments

The sounding datum used for survey H12258 was Mean Lower Low Water (MLLW). The sounding datum for chart 13394 is Lower Low Water Large Tide (LLWLT). The HCell was compiled to MLLW. See the H12258 DR and H12258 HCell Report for additional details.

APPROVAL SHEET
H12258

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.