

H10990

NOAA FORM 76-35A	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	Basic Hydrographic  (Navigable Area)
Registry No.	H10990
LOCALITY	
State/Territory	Massachusetts
General Locality	Massachusetts Bay
Sub-locality	Boston Inner Harbor
2001	
CHIEF OF PARTY CDR Steven R. Barnum, NOAA	
LIBRARY & ARCHIVES	
DATE	

NOAA FORM 77-28 U.S. DEPARTMENT OF COMMERCE (11-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  <h2 style="text-align: center;">HYDROGRAPHIC TITLE SHEET</h2>	REGISTRY NUMBER:  <h2 style="text-align: center;">H10990</h2>																																																								
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 NUMBER: <del>N/A</del> <i><b>SHEET A</b></i>																																																								
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Remarks: <i>* <b>Bold, Italic, Red notes in Descriptive report were made during office processing.</b></i>  <i>1) All Times are UTC.</i>  <i>2) This is a basic Hydrographic Survey under the Navigable Area Concept.</i>  <i>3) Projection is UTM Zone 19.</i>																																																									

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APPENDIX I - V \*

SEPARATE I - V \*

*\* Data filed with original field records.*

## **DESCRIPTIVE REPORT**

to accompany

### **HYDROGRAPHIC SURVEY H10990**

Scale of Survey: 1:10,000

Year of Survey: 2001

NOAA Ship WHITING

CDR Steven R. Barnum, Commanding

#### **A. AREA SURVEYED**

This hydrographic survey was conducted in accordance with Hydrographic Survey Letter Instructions for project OPR-A397-WH, Massachusetts Bay, Massachusetts. Original instructions were dated August 30, 2000. Change number 1 to these instructions were dated on June 28, 2001, and updated the tidal requirements for this project. The survey limits were expanded and shifted west by the Command to meet customer requests. *Concur*

This Descriptive Report pertains to sheet "A" of project OPR-A397-WH, Boston Inner Harbor. The assigned registry number for this sheet is H10990, as prescribed in the Letter Instructions. *Concur*

For complete survey limits, see Figure 1 on the following page.





**Figure 1:** Survey Limits, Sheet "A," H1099C, Boston Inner Harbor, Chart 13270, 58th Edition, October 9th, 1999, Scale 1:25,000, Boston Harbor

This chart is updated through July 2001  
Local Notice to Mariners:  
NOT FOR NAVIGATION

	<p><b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE</b></p>	<p>Project: OP9-A207-WH Survey: H1099C State: Massachusetts Locality: Massachusetts Bay Sub-locality: Boston Inner Harbor Survey Scale: 1:10,000</p>	<p>Sounding Units: Feet Sounding Datum: MLLW Horizontal Datum: NAD 83 Projection: UTM 19 Central Meridian: 059° 00' 00" Scale Factor: 0.9996</p>	<p><b>NOAA Ship WHITING</b> <b>CDR Steven R. Barnum</b> <b>Commanding</b> August 20 to November 4, 2001</p>
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## **B. DATA ACQUISITION AND PROCESSING** *See also evaluation report.*

### **B.1. EQUIPMENT**

Data were acquired by NOAA Ship WHITING Survey Launches 1005 and 1014. These launches are NOAA's standard 8.5-meter aluminum Jensen vessel with a typical 0.5-meter transducer draft. All vessels were configured as described in the Data Acquisition and Processing Report (DAPR)\* for this project. A brief description of these configurations are listed below.

Launch 1005 acquired vertical beam echosounder (VBES)<sup>1</sup>, shallow-water multibeam (SWMB), and sound velocity data. An Odom Echotrac DF3200 MK II echosounder was used for VBES hydrography. A Reson SeaBat 8101 multibeam system was used for SWMB hydrography. All positioning and attitude data were determined using a TSS POS/MV 320 (version 2) GPS-aided inertial navigation system. Velocity casts were conducted with a SeaBird SeaCat CTD instrument.

Launch 1014 acquired VBES data, detached positions, bottom samples, side scan sonar data, and sound velocity casts. Equipment for VBES acquisition is as described above. In addition to the Edgetech 272-T towed side scan sonar, Launch 1014 also acquired data with the hull-mounted High Speed High Resolution Side Scan Sonar (HSHRSSS) Klein T5000. Velocity casts were conducted with a SeaBird SeaCat CTD instrument. Positioning was determined with a Trimble DSM212L integrated differential GPS receiver. Attitude data was determined using a TSS DMS-05 dynamic motion sensor.

No unusual vessel configurations were required. Refer to the Data Acquisition and Processing Report (DAPR)\* for detailed equipment and vessel configuration information.

*\* Data filed with original field records.*

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

#### **Side Scan Sonar Quality Control**

Daily confidence checks were conducted by observing side scan imagery in the vicinity of known contacts, such as buoys or sand waves. Side scan data were considered satisfactory if the contacts could be distinguished throughout the entire range of the side scan trace.

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

There were no faults with the SWMB system which affected data integrity. Refer to this project's DAPR \* for detailed discussion of SWMB system calibrations, data acquisition, and data processing. *\* Data filed with original field records.*

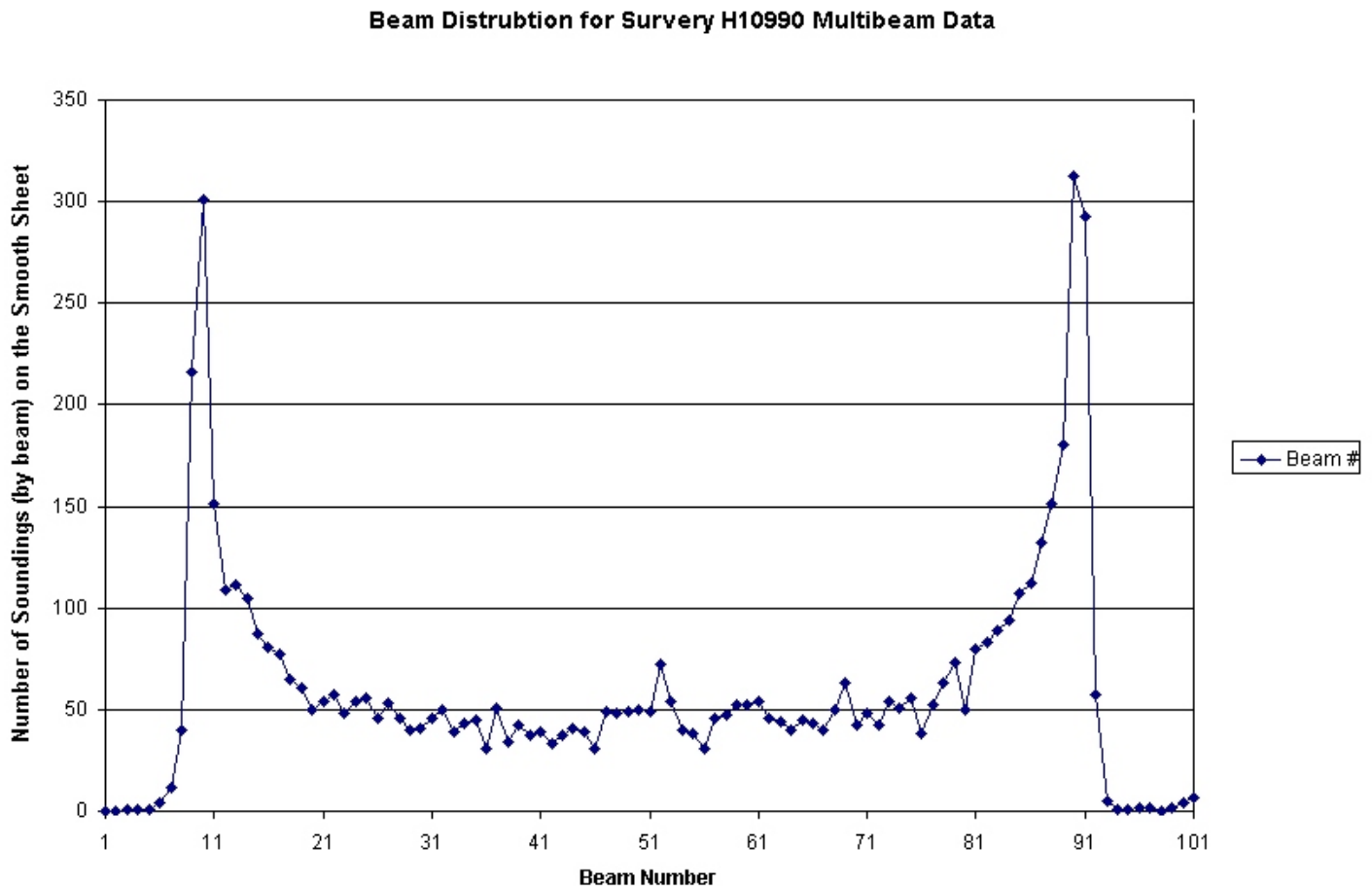
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<sup>1</sup>Launch 1005 VBES data were not processed when SWMB data were acquired. CARIS does not use fix numbers in its system of annotation. Time is the major reference system common throughout all HDCS data. Fix numbers are found only in the CARIS Vertical Beam Editor, and are used for reference to the VBES paper trace.

## Shallow Water Multibeam Distribution

**Figure 2.** SWMB distribution. Each data point in this histogram represents the number of soundings from that beam used in the preliminary smooth sheet.

The shallow water multibeam beam distribution histogram is shown in **Figure 2**. The histogram shows a relatively even distribution of beam occurrences between beams 20 and 80. Use of beams



one through ten and 91 through 101 is low since these were the outer beams of the SWMB and subject to the most refraction errors. As a result these beams were typically rejected during processing.

## Crosslines

Two types of data were run for this survey: multibeam and single beam data. Crosslines of each data type were run over the mainscheme of each type in order to compare the soundings to ensure data quality.



A total of 13.1 linear nautical miles (lnm) of crosslines were run, equivalent to 11.3% of the 115.9 nautical miles of mainscheme data. Mainscheme data was defined for this survey to be both the 100% and 200% coverage as well as the mainscheme VBES data in the Governor's Flats area . Crossline and mainscheme sounding data were compared using MAPINFO 5.0, with no significant discrepancies observed.

One hundred percent SWMB data were acquired in the Boston Harbor channel. Significant contacts were also investigated with SWMB developments. Sixteen crosslines plotted against the mainscheme SWMB lines provided the crossline comparison. SWMB data were analyzed in a **CARIS/HIPS** workfile (see project **DAPR**)\*, indicating that the crossline data agreed with 83.3% of the mainscheme data.

**Junctions** *See also evaluation report.*

Survey H10991, Sheet B, completed during the 2000 field season, was available for junction comparisons. Survey H10991 adjoins H10990's eastern edge, extending into the **Governors** Island Flats. Examination of soundings from both surveys indicated that the soundings agreed well, generally the difference was not more than one to two feet, or approximately 10% of the depth. Discrepancies were noted in areas of rocky terrain, that is characteristic of Massachusetts Bay

## **CORRECTIONS TO ECHO SOUNDING**

All methods and instruments were used as described in the project **DAPR** \*. A table detailing all sound velocity casts is contained in **Separate III**.\*

*\* Data filed with original field records.*

## C. VERTICAL AND HORIZONTAL CONTROL

### VERTICAL CONTROL

The tidal datum for this project is Mean Lower Low Water (MLLW). The operating tide station at Boston, MA (844-3970) served as control for datum determination. Two 30-day gauges at Boston Light, MA (844-4162) and Nut Island, MA (844-4525) provided ancillary tide data.

Tidal zoning for this survey is consistent with the Letter Instructions. The zones used for this survey are as follows:

STATION	CORRECTOR (min)	RATIO	REFERENCE
BOS4	0	x1.00	844-3970
BOS5	0	x0.99	844-3970
BOS6	0	x0.97	844-3970

A Request for Approved Tides letter was sent to N/OPS1 on November 6, 2001 (**Appendix IV**). Verified tides from the N/OPS1 CO-OPS website were downloaded on November 4, 2001 and applied to all sounding data. *Approved tides and zones were reapplied to survey in Caris during office processing.*

### HORIZONTAL CONTROL *See also 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 established using Global Positioning System (GPS) corrected by the nearest U.S. Coast Guard differential GPS reference station. The primary differential beacon used for this survey was Chatham, Massachusetts (325 kHz). No horizontal control stations were established for this survey.

The horizontal dilution of precision (HDOP) was monitored during acquisition on all survey platforms. HDOP values did not exceed 4.00, and adequate satellite coverage was maintained throughout survey operations. All positioning equipment was operated in a manner consistent with the manufacturers requirements and as described in the **DAPR \***. Detailed information regarding vertical and horizontal control is included in the Vertical and Horizontal Control Report. See **Appendix IV \*** - Tides and Water Levels. *\* Data filed with original field records.*

## D. RESULTS AND RECOMMENDATIONS

### D.1. CHART COMPARISON *See also evaluation report.*

Two charts are affected by this survey:

13270, 58<sup>th</sup> edition, October 9, 1999, 1:25,000  
13272, 47<sup>th</sup> edition, March 10, 2001, 1:10,000

#### General Agreement with Charted soundings

##### *US Coast Guard Base, Boston North End*

Soundings acquired around the Coast Guard piers *in the vicinity of Latitude 42°22'09.0" N, Longitude 71°03'06.0" W* did not agree well with the charted depths; between the piers, soundings varied from the charted depths. Between piers 3 and 2, deeper soundings were acquired; between piers 1 and 2 a controlling depth of ~~23~~ **22** feet was acquired, and north of pier 1 the controlling depth is now ~~24~~ **18** feet. The difference between this survey's acquired soundings and the charted depths is due to dredging done within the Coast Guard piers. \* *See also D.6) in the Evaluation Report.*

##### *Boston Inner Harbor Channel*

Soundings acquired *in the vicinity of Latitude 42°20'18.0"N, Longitude 71°00'15.0"W* within the charted federal channel agreed well with the charted depths. \*

##### *Reserved Channel*

Soundings acquired in the Federal Reserved Channel *in the vicinity of Latitude 42°20'34.0"N, Longitude 71°01'38.0"W* generally agreed well with the charted depths. \* The south side is shoaler than the charted depths. The Channel is used for large cruise ships and offloading container ships.

##### *West of Channel, north of Reserved Channel to Pier 2*

Soundings acquired within this area *in the vicinity of Latitude 42°21'14.0"N, Longitude 71°02'21.0"W* generally agreed well with the charted depths. \* The area from Pier 6 north to Pier 2 was found to be shoaler than the charted depths by one to two feet on average. \*

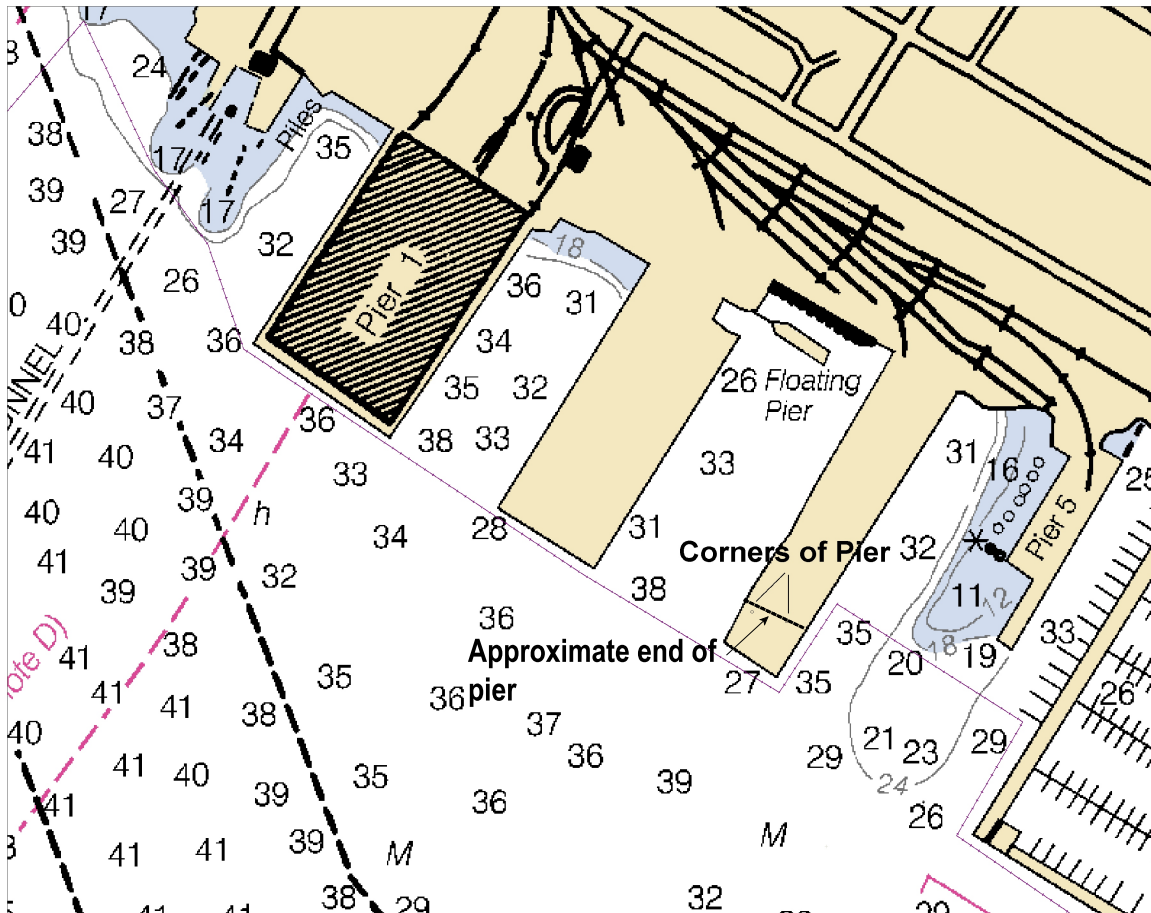
##### *West of Channel, Pier 2 north to Survey Limits*

The area south of Anchorage "A," which is heavily utilized by ferries and tour boats, is considerably shoaler than the charted depths. *In the vicinity of Latitude 42°21'24.0"N, Longitude 71°02'50.0"W* soundings of 22 feet were noted in areas charted as 27 feet. One Danger to Navigation (Dton) was found in this area and is addressed in the Dtons section. \*

\* *Concur*

*East of the Channel, Survey Limits south to Pier 5*

This area is shoaler than the charted depths. The pier *in the vicinity of Latitude 42°21'46.1"N, Longitude 71°02'14.6"W*, between the floating pier and Pier 5 is mischarted. The actual pier is several meters shorter than the charted length; two detached positions (# 43011 and # 43012) indicate the current position of the pier (**Figure 3**). *Concur w/clarification See section D.15 of the Evaluation Report for charting recommendation.*



**Figure 3: Graphic showing actual corners and approximate end of pier.**

*Basin West of Logan Airport, North of Buoy R N "2"*

This area is mainly used by water taxis servicing the airport. The depths vary greatly from the charted depths. The northeast section, that runs along the airport is considerably shoaler than charted. The channel leading into the basin has a least depth of 21 **20** feet, instead of the charted controlling depths of 33 and 28 feet. This area is a haven for derelict and abandoned vessels. The area is littered with wrecks and other debris on the bottom. The following wrecks were found in the basin. **Concur**

Contact	Least Depth	Latitude	Longitude
<b>SSS 241_124_1458_0001</b> <b>MB 288/500/1252/380/27</b>	14.37ft/4.38m <b>14ft/4.37m</b>	42° 21' 45.19" N <b>42° 21' 45.13" N</b>	71° 01' 37.41"W * <b>71° 01' 37.35"W</b> <b>14 Wk</b>
<b>SSS 261_215_1910_0004</b> <b>MB 282/484/2058/1322/46</b>	17.55ft/5.35m <b>20ft/6.19m</b>	42° 21' 43.39" N <b>42° 21' 43.39" N</b>	71° 01' 45.84"W <b>71° 01' 45.97"W *</b> <b>20 Wk</b>
<b>SSS 261_216_1417_0001</b> <b>MB 282/489/2118/114/70</b>	8.76ft/2.67m <b>11ft/3.50m</b>	42° 21' 42.85" N <b>42° 21' 42.86" N</b>	71° 01' 40.06"W <b>71° 01' 39.92"W *</b> <b>11 Wk</b>
<b>SSS <del>261</del>264_216_1417_0002</b> <b>MB 288/496/1314/823/91</b>	6.10ft/1.86m <b>8ft/2.52m</b>	42° 21' 42.34" N <b>42° 21' 42.40" N</b>	71° 01' 43.45"W <b>71° 01' 43.21"W *</b> <b>8 Wk</b>
<b>SSS 276_635_1520_0004</b> <b>MB 282/484/2058/1322/46</b>	17.55ft/5.35m <b>20ft/6.19m</b>	42° 21' 43.34" N <b>42° 21' 43.39" N</b>	71° 01' 46.32"W <b>71° 01' 45.97"W</b> <b>Same as 261_215_1910_0004</b>
<b>SSS 276_635_1520_0005</b> <b>MB 282/483/2054/421/54</b>	25.09ft/7.65m <b>23ft/7.18m</b>	42° 21' 41.07" N <b>42° 21' 41.30" N</b>	71° 01' 47.44"W <b>71° 01' 48.00"W *</b> <b>23 Wk</b>

**\* It is recommended that these items be charted. See also AWOIS 10208, page 22 of this report for additional wreck.**

#### *Anchorage "1"*

Most depths acquired in Anchorage "1", **in the vicinity of Latitude 42°21'22.0"N, Longitude 71°01'45.0"W** during this survey were two to three feet shoaler than charted depths. One DtoN was found in this area and is addressed in the DtoNs section. **Concur See also DTON #2 page 39 of this report for charting recommendation.**

#### *East of the Channel, south of Anchorage "1" to the Southern Tip of the Airport*

This area did not agree with the charted depths. Depths acquired in this area **in the vicinity of Latitude 42°20'56.4"N, Longitude 71°00'53.0"W** are shoaler than the charted soundings, in some instances by as much as 10 feet, the average being four to six feet. The area is used mainly by recreational boats and doesn't seem to be a heavily utilized anchorage. **One** A few key danger to navigation ~~were~~ **was** chosen, however, the majority of the area needs to be recharted. **Concur See also DTON #3, page 39 of this report for charting recommendation.**



*North of Channel (Buoy R "6" Fl R 2.5s) and South of Governors Island Flats (Buoy G C "1")*

This area **in the vicinity of Latitude 42°20'17.7"N, Longitude 70°59'45.0"W** agreed well with the charted soundings, however one sounding in this area is discussed in the DtoNs section. **Concur**  
**See also DTON #4 page 39 of this report for charting recommendation.**

*Southeast Extent of Survey*

Soundings taken southeast of Pleasure Bay **in the vicinity of Latitude 42°20'06.0"N, Longitude 71°00'00.0"W** agreed well with the charted depths. In the area just southeast of the charted FL G 4s 15 ft 5M "5" AtoN the eighteen foot curve has extended further southeast. The marked channel is deeper than charted. This area is mainly used by recreational boaters and small fishing vessels, although some ferry traffic was noted. ~~Serious discrepancies are addressed in the "Dangers to Navigation" section.~~ **Concur**

*Governors Island Flats/ Deer Island Flats*

Sounding acquired in this area **in the vicinity of Latitude 42°20'51.3"N, Longitude 70°58'52.6"W** vary greatly from the charted soundings; deeper by five to six feet in spots and shoaler by five to six feet in others. The sounding acquired with this survey do agree well with prior survey H09134. The Flats are mainly utilized by pleasure boaters. The Lower Middle Channel is heavily trafficked by high speed ferries and other sightseeing tour boats; vessels with drafts of less than ten feet. The area located between Fort Dawes and the pier at the sewage treatment plant on Deer Island, is much deeper than charted. The pier is used extensively by tugboats transporting barges of sludge, fuel oil or chemical disinfectant to and from the sewage treatment facility. Data averaging nine to ten feet were acquired in areas charted as "exposed at low tide." Hydrographer recommends complete re-charting of this area, as it is important to disaster management teams operating at Logan Airport. **Concur**

*Winthrop - Airport Area*

This area **in the vicinity of Latitude 42°22'53.4"N, Longitude 71°00'37.0"W** is a haven for derelict and abandoned vessels. Several wrecks were found in the northeast area near the airport. The wrecks do not hinder navigation in this area, as the area is mainly used by small draft recreational vessels, however, one ~~sounding~~ **wreck** from this area is addressed in the DtoNs section **page 39, #5** . See Pydro preliminary smooth sheet for comments and imagery of these wrecks. **Concur**

Contact	Least Depth	Latitude	Longitude
<i>SSS 292_964_1717_0003</i> <i>MB 294/740/1720/1571/10</i>	<i>21.52ft/6.56m</i> <i>22ft/6.77m</i>	<i>42° 22' 27.12" N</i> <i>42° 22'27.13" N</i>	<i>71° 00' 38.62"W</i> <i>71° 00'39.00"W *</i> <i>22 Wk</i>
<i>SSS 292_964_1717_0004</i> <i>MB 294/728/1706/201/74</i>	<i>20.76ft/6.33m</i> <i>21ft/6.55m</i>	<i>42° 22' 25.11" N</i> <i>42° 22'25.17" N</i>	<i>71° 00' 40.86"W</i> <i>71° 00'40.67"W *</i> <i>21 Wk</i>
<i>SSS 292_964_1717_0006</i> <i>MB 294/740/1720/1060/9</i>	<i>22.64ft/6.9m</i> <i>24ft/7.46m</i>	<i>42° 22' 33.47" N</i> <i>42° 22'33.42" N</i>	<i>71° 00' 34.98"W</i> <i>71° 00'34.88"W *</i> <i>24 Wk</i>
<i>SSS 292_964_1717_0007</i> <i>MB 294/728/1706/1392/6</i>	<i>20.64ft/6.29m</i> <i>21ft/6.48m</i>	<i>42° 22' 41.03" N</i> <i>42° 22'41.11" N</i>	<i>71° 00' 32.6"W</i> <i>71° 00'32.68"W *</i> <i>21 Wk</i>
<i>SSS 292_964_1717_0008</i> <i>MB 294/728/1706/1515/90</i>	<i>25.72ft/7.84m</i> <i>21ft/6.54m</i>	<i>42° 22' 42.59" N</i> <i>42° 22'42.37" N</i>	<i>71° 00' 30.78"W</i> <i>71° 00'30.44"W *</i> <i>21 Wk</i>
<i>SSS 293_991_1635_0001</i> <i>MB 294/729/1651/714/79</i>	<i>14.73ft/4.48m</i> <i>15ft/4.70m</i>	<i>42° 22' 48.39" N</i> <i>42° 22'48.50" N</i>	<i>71° 00' 30.73"W</i> <i>71° 00'30.59"W *</i> <i>15 Wk</i>

*\* It is recommended that the above items be charted as dangerous sunken wrecks in present survey location.*

### **AWOIS Item Investigations**

There are sixteen AWOIS items within the survey limits. These item investigations are summarized in the following pages.

AWOIS: 10196

**Item Description:** TIMROD (Wreck)

**Source:** NM32/1958

**Item Position:** Lat. 42° 19' 45.7" N, Long. 071° 00' 09.17" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 500m

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**INVESTIGATION**

**Contact No:** H10990\_100\_2001/14HS/2001\_261/135\_1423\_0001  
H10990\_100\_2001/14HS/2001\_261/106\_1353\_0002  
H10990\_100\_2001/14HS/2001\_261/131\_1428\_0001  
H10990\_100\_2001/14HS/2001\_261/135\_1423\_0003  
H10990\_100\_2001/14HS/2001\_262/600\_1404\_0002  
H10990\_200\_2001/14HS/2001\_261/226\_1648\_0001

**Date(s):** 261, 262, 282

**Least Depth Position Number:** H10990\_05MB\_282\_455\_1748\_224\_82 ~~454\_1745\_222\_41~~

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Longitude 42° 19' 50.21 ~~46.72~~" N, Longitude 071° 00' 09.38 ~~44~~" W

**Position Determined By:** Differential GPS

**Investigation Summary:** Two Hundred percent SSS were acquired over 60% of the 500m radius; the rest of the search radius was too shallow for launch operations. SWMB developments were run over significant contacts identified within the AWOIS radius. Three hits were acquired on the same contact (H10990\_100\_2001/14HS/2001\_261/135\_1423\_0001), which matched the AWOIS item description. The least depth acquired by SWMB was ~~10 15~~ ft (~~3.13 4.56~~ m) corrected with ~~verified~~ *approved* tides.

---

**CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends deleting wreck symbol at position Lat. 42° 19' 45.7" N, Long. 071° 00' 09.17" W and charting wreck at position Lat. 42° 19' 50.21 ~~46.72~~" N, Long. 071° 00' 09.38 ~~44~~" W with a least depth of ~~10 15~~ ft (~~3.13 4.56~~ m). *Concur*  
*Delete dangerous sunken wreck*  
*Chart 15 Wk and danger curve*

**AWOIS: 10197**

**Item Description:** Wreck (Unknown)

**Source:** LNM 36/1974

**Item Position:** Lat. 42° 20'18.35" N, Long. 071° 00' 28.17" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 1000m

---

INVESTIGATION

**Contact No:** N/A

**Date(s):** 261, 262, 280

**Least Depth Position Number:**

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Longitude 42° 20' 18.35" N, Longitude 071° 00' 28.17" W

**Position Determined By:** Differential GPS

**Investigation Summary:** Two hundred percent SSS were acquired over the entire navigable radius, which is approximately 75% of entire AWOIS radius. 100% SWMB was acquired over 60% of entire radius, the other 40% wasn't navigable for the multibeam launch. Several contacts were found, however none matching AWOIS description were identified within the AWOIS radius.

---

CHARTING RECOMMENDATION

**Recommendations:** Hydrographer recommends deleting "wk" symbol from location Lat. 42° 20'18.35" N, Long. 071° 00' 28.17" W and charting current survey soundings. *Concur*

*Delete dangerous sunken wreck*

AWOIS: 10198

**Item Description:** Sounding (30.4 foot depth)

**Source:** BP157838 COE March 1999

**Item Position:** Lat. 42° 20' 20.0" N, Long. 071° 00' 09.0" W

**Required Investigation:** SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 250m

---

INVESTIGATION

**Contact No:** NA

**Date(s):** 261, 262, 280

**Least Depth Position Number:** H10990\_05MB\_280\_410\_1536\_1745\_88

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Longitude 42° 20' 20.20" N, Longitude 071° 00' 09.99" W

**Position Determined By:** Differential GPS

**Investigation Summary:** One hundred percent side scan sonar covered the entire area, 200% SSS and 100% SWMB were acquired over the 75% of the 250m radius. Several contacts were identified within the AWOIS radius, although none with depth of less than 32 feet within the navigable channel. The SWMB least depth on a rock in the AWOIS radius was ~~33~~ **34** ft (10.25 ~~56~~ m), corrected with ~~verified~~ **approved** tides.

---

CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends deleting the charted "30" at position Lat. 42° 20' 20.0" N, Long. 071° 00' 09.0" W and charting present survey soundings in this area.

***Concur with clarification***

***Item is not shown on charts 13272, 47<sup>th</sup> ED., Mar10/01 or 13270, 59<sup>th</sup> ED., Jul 14/01  
No change in charting recommended.***

AWOIS: 10199

**Item Description:** Obstruction

**Source:** LNM17/1996, BP157838 COE March 1996

**Item Position:** Lat. 42° 20' 20.9" N, Long. 071° 00' 11.6" W

**Required Investigation:** SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 250m

---

INVESTIGATION

**Contact No:** H10990\_100\_2001/14HS/2001\_261/107\_1249\_0001  
H10990\_100\_2001/14HS/2001\_261/107\_1248\_0004  
H10990\_200\_2001/14HS/2001\_262/202\_1257\_0002  
H10990\_100\_2001/14HS/2001\_262/202\_1257\_0004

**Date(s):** 261, 262, 280, 288, 308

*280\_411\_1522\_4725\_87*

**Least Depth Position Number:** H10990\_05MB\_288\_442\_1545\_34\_53; Time 17:12 DLDG

**Investigation Used:** 200% SSS, 100% SWMB, DI

**Surveyed Position:** Longitude 42° 20' 20.9<sup>7</sup>" N, Longitude 071° 00' 11.6 <sup>72</sup>" W

**Position Determined By:** Differential GPS

**Investigation Summary:** One hundred percent side scan sonar covered the entire area. Two hundred percent SSS and 100% SWMB were acquired over the 75% of the 250m radius; the entire radius wasn't covered due to shallow water just north of the channel. Several contacts were identified within the AWOIS radius, although none of the contacts were shoaler than 34 ft. One contact was identified as AWOIS item 10199, 107\_1248\_000, and had a multibeam least depth is 37 ft (11.44 m), corrected with ~~verified~~ *approved* tides. Divers verified that the obstruction identified as AWOIS item 10199 was a large pile of anchor chain and debris, including a large concrete block; the DLDG indicated a depth of 34 ft (10.52 <sup>56</sup> m), corrected with ~~verified~~ *approved* tides.

---

CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends deleting 29 foot ~~sounding~~ *rock* at position Lat. 42° 20' 20.9" N, Long. 071° 00' 11.6" W and charting present survey soundings in this area with a least depth of 34 ft (10.52 <sup>56</sup> m). *Concur with clarification*

*Delete 29 Rk with danger curve  
See also section D.33) of the Evaluation Report*

LEAST DEPTH REPORT, VELOCITY PROGRAM, Version 6.00

PROJECT: OPR-A397 SURVEY: H10990 DATE OF DIVE: 11-04-2001

NOAA UNIT: WHITING - 1014 YEAR 2001  
AWOIS NUMBER: 10199 10198 FIX NUMBER: 2222 CONTACT NUMBER:  
107\_1248\_0004

---  
CAST TABLE NUMBER: 00 CAST INSTRUMENT: SEACAT S/N:2530 CD:12/9/00  
DAY OF CAST (UTC): 308 TIME OF CAST (UTC): 20:43  
---

---  
DIVER GAUGE SERIAL NUMBER: 68332  
DAY OF DIVE (UTC): 308 TIME OF LD MEASUREMENT (UTC): 17:12  
LATITUDE OF DIVE: 42/20/18.97 N  
LONGITUDE OF DIVE: 071/00/13.16 W  
PREDIVE GAUGE PRESSURE (psia): 14.57  
GAUGE PRESSURE AT DESIGNATED LEAST DEPTH (psia): 34.51  
---

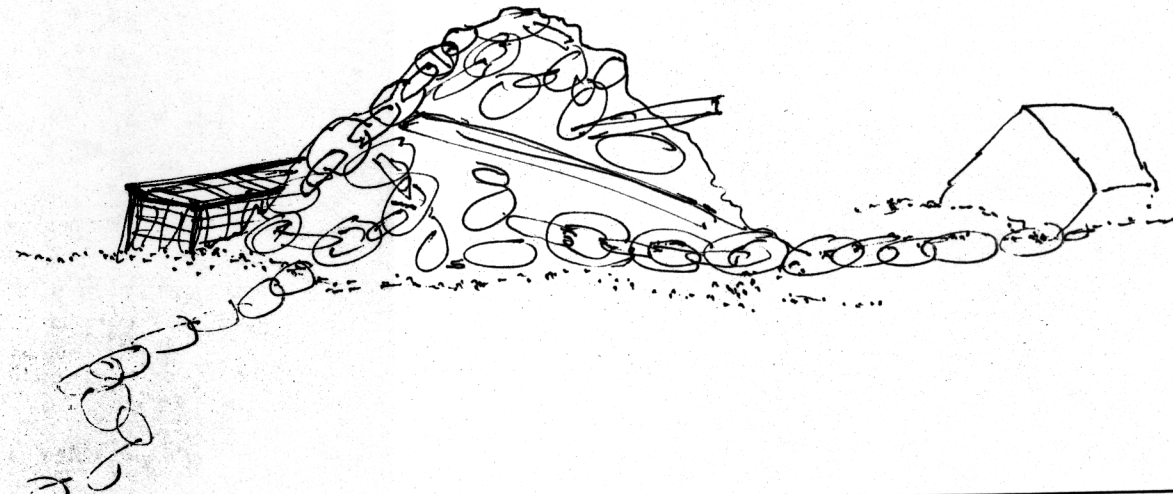
---  
RESULTS

COMPUTED LEAST DEPTH (m): 13.74  
TIDE CORRECTOR (m): -3.22  
CORRECTED LEAST DEPTH (m): 10.52  
CORRECTED LEAST DEPTH (ft): 34.51

COMMENTS AND RECOMMENDATIONS:

AWOIS Item 10199 was found as described. A large pile of heavy anchor chain and debris.  
Large concrete block found near by.

NOAA Ship WHITING  
Dive Investigation Report  
Dive No. 308. 2

Survey Information			
AWOIS Item:		Description:	
Latitude - Longitude		SSS Contacts	
SWMB day/line/time/ping/beam		VBES Positions	
SWMB Depth		VBES Depth	
Dive Information			
Dive Master: LT Brennan		Time In: 1201	
Dive Tender: AB Branniff		Time Out: 1217	
Diver #1: BRENNAN		Max Depth: 50 / 13 minutes	
Diver #2: ELWELL		Visibility/Current: 10' OKS	
Diver's Least Depth Gauge Information			
Gauge Number:	68332	CTD Location:	
Pre-Dive Deck Pressure:	14.57	CTD Time:	
Least Depth Pressure:	34.51	DLDG Depth:	
Post-Dive Deck Pressure:		Tide Corrector:	
Time of Least Depth:	1712 UTC	Item Least Depth:	
Narrative Report:			
<p style="font-family: cursive;">LARGE PILE OF CHAIN &amp; DEBRIS W/ LARGE CONCRETE BLOCK</p> 			



**AWOIS: 10200**

**Item Description:** Float Barge (unknown), charted as ruins

**Source:** CL 1644/1984

**Item Position:** Lat. 42° 20' 31.0" N, Long. 071° 02' 11.5" W

**Required Investigation:** SD, VS

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 250m

---

INVESTIGATION

**Contact No:** N/A

**Date(s):** 262, 275, 281, 284

**Least Depth Position Number:** NA

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Longitude 42° 20' 30.4 **31.00**" N, Longitude 071° 02' 04.53 **11.50**" W

**Position Determined By:** Differential GPS

**Investigation Summary:** Two hundred percent SSS and 100% SWMB were acquired over the navigable portion of the AWOIS radius, approximately 10% of the entire radius. No contacts matching AWOIS description were identified within the AWOIS radius.

---

CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends retaining ruins symbol at position Lat. 42° 20' 31.00" N, Long. 071° 02' 11.50" W, due to insufficient findings. **Concur**

AWOIS: 10201

**Item Description:** Wreck *PA* (Unknown)

**Source:** LNM 42/1985

**Item Position:** Lat. 42° 20' 32.35" N, Long. 071° 02' 13.18" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 250m

---

#### INVESTIGATION

**Contact No:** N/A

**Date(s):** 262, 275, 281, 284

**Least Depth Position Number:** N/A

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Longitude 42° 20' ~~34.38~~ *32.35*" N, Longitude 071° 02' ~~09.2~~ *13.18*" W

**Position Determined By:** Differential GPS

**Investigation Summary:** Two hundred percent SSS and 100% SWMB were acquired over the navigable portion of the radius, which was approximately 10% of the entire radius. The remainder of the search radius was too shoal for the launch to operate safely or was on land. No contacts matching AWOIS description were identified within the AWOIS radius.

---

#### CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends retaining the *dangerous sunken* wreck symbol at position Lat. 42° 20' 32.35" N, Long. 071° 02' 13.18" W, due to insufficient findings. *Concur*  
*It is also recommended that the notation PA be retained.*

AWOIS: 10202

**Item Description:** Wreck *PA* (Unknown)

**Source:** LNM25/1983

**Item Position:** Lat. 42° 20' 55.35" N, Long. 071° 00' 48.17" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 1000m

---

INVESTIGATION

**Contact No:** N/A

**Date(s):** 261, 262, 276, 282, 288, 289

**Least Depth Position Number:** H10990\_05MB\_288\_426\_1531\_187\_10

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Longitude 42° 20' 55.35" N, Longitude 071° 00' 48.17" W

**Position Determined By:** Differential GPS

**Investigation Summary:** Two hundred percent SSS and 100% SWMB were acquired over the navigable 1000m radius, the remainder of the search radius was too shoal or on land. Several contacts were found in the radius, however, none of the contacts matched the wreck description.

---

CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends deleting "*dangerous sunken* wreck" symbol at position Lat. 42° 20' 55.35" N, Long. 071° 00' 48.17" W and charting present survey soundings in this area. *Concur*

*Delete dangerous sunken wreck, PA*

AWOIS: 10203

**Item Description:** Wreck (Unknown)

**Source:** LNM 37/1986

**Item Position:** Lat. 42° 21' 07.75" N, Long. 071° 02' 18.88" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 1000m

---

#### INVESTIGATION

**Contact No:** N/A

**Date(s):** 275, 280, 282

**Least Depth Position Number:** N/A

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Longitude 42° 21' 07.75" N, Longitude 071° 02' 18.88" W

**Position Determined By:** Differential GPS

**Investigation Summary:** Two hundred percent SSS, and 100% SWMB were run over half the radius of the AWOIS circle in 2001; the remaining portion was outside of the survey limits. A field examination (F00471) of this area was conducted during the 2000 field season per request of the Navy. Full-bottom coverage hydrographic survey methods covered all navigable portions of the AWOIS radius. No wreck was found between Piers 5 and 6, World Trade Center, Boston Inner Harbor. (September 21, 2000 DtoN Report is included here for reference.)

---

#### CHARTING RECOMMENDATION

**Recommendations:** This item was disproved during the WHITING's 2000 field season with Field Examination F00471 and documented in the Dangers to Navigation Report dated September 21, 2000. That report recommended deleting the charted "wk" at Latitude 42° 21' 05.2" N and Longitude 071° 02' 20.0" W and charting FE F00471 soundings. *Concur*

*Item is not shown on charts 13272, 47<sup>th</sup> ED., Mar10/01 or 13270, 59<sup>th</sup> ED., Jul 14/01 .  
No change in charting recommended.*

REPORT OF DANGER TO NAVIGATION

Field Examination Survey Registry Number: **F00471**

Survey Title:                      State:                      Boston  
   Locality:                      Approaches to Boston  
   Sub-locality:                      Boston Harbor

Project Number:                      **OPR-A397-WH**

Survey Date(s):                      September 19, 2000

Soundings are reduced to Mean Lower Low Water (MLLW) using Preliminary Observed Water Levels. Horizontal datum is NAD 83. Position was determined using Differential Global Positioning System (DGPS).

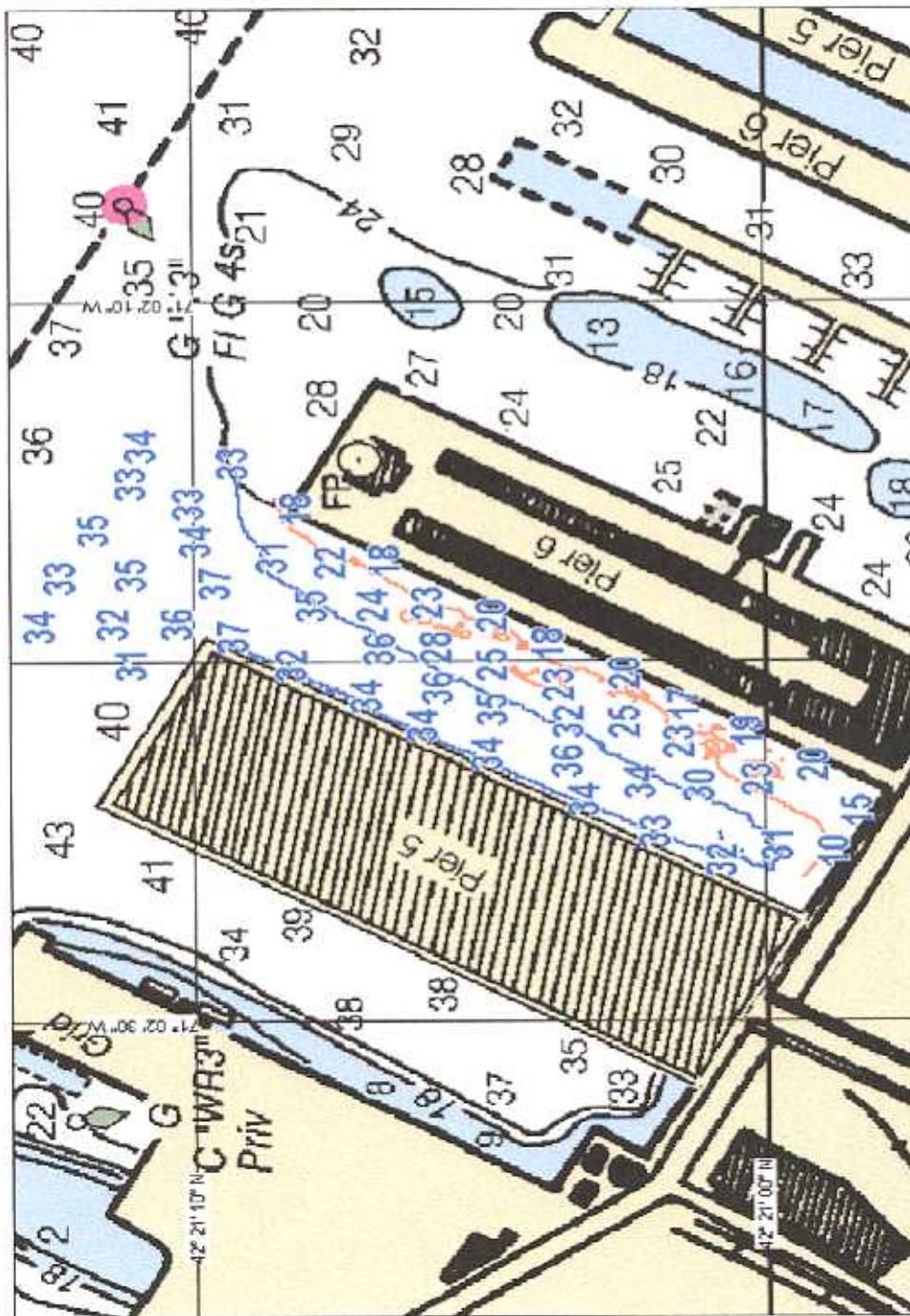
Chart(s) Affected:                      **13272 46<sup>th</sup> Edition/April 15, 2000, 1:10,000, NAD 83**

DANGER TO NAVIGATION

<u>Feature</u>	<u>Depth (ft)</u>	<u>Latitude</u>	<u>Longitude</u>
Wreck (Reported 1986, position approximate)	<b>unknown</b>	<b>42° 21' 05.2" N</b>	<b>071°02' 20.0" W</b>

The dangerous wreck charted in this position was not found subsequent to investigation using full-bottom coverage hydrographic survey methods between Piers 5 and 6, World Trade Center, Boston Inner Harbor. The attached chartlet depicts representative shoal soundings. Recommend the charted dangerous wreck symbol be removed.

Questions concerning this report should be directed to the Chief, Atlantic Hydrographic Branch at 757-441-6746.



This chartlet may not be up to date with the latest  
Local Notice to Mariners information.  
NOT FOR NAVIGATION

Chart 13272, 46th Edition, April 15, 2000, Scale 1:10,000, Boston Inner Harbor  
Soundings shown in FEET at MLLW using Preliminary Observed Water Levels  
on Boston, MA (844-3970).



NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE

Project: OPER-235-10W  
Survey: F-00471  
State: Massachusetts  
Locality: Approaches to Boston  
Sub-locality: Boston Harbor, Piers 5 & 6  
Survey Scale: 1:10,000

Sounding Units: Meters  
Sounding Datum: MLLW  
Horizontal Datum: NAD 83  
Projection: UTM 19  
Central Meridian: 069° 00' 00"  
Scale Factor: 0.9996

NOAA Ship WHITING  
LCDR Gerd F. Glang  
Commanding  
September 16, 2000

DTON

B

**AWOIS: 10206**

**Item Description:** Wreck (Unknown)

**Source:** LNM30/1986

**Item Position:** Lat. 42° 21' 24.35" N, Long. 071° 01' 46.18" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 1000m

---

**INVESTIGATION**

**Contact No:** H10990\_200\_2001/14HS/2001\_261/215\_1910\_0005  
H10990\_100\_2001/14HS/2001\_241/122\_1439\_0004

**Date(s):** 261, 262, 280, 281, 282, 284, 288, 294

*465\_1827\_1474\_17*

**Least Depth Position Number:** H10990\_05MB\_282\_466\_1843\_2635\_70

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** ~~Longitude 17° 55' 59.11" N, Longitude 066° 13' 38.83" W~~  
*Latitude 42° 21' 24.23" N, Longitude 071° 01' 46.37" W*

**Position Determined By:** Differential GPS

**Investigation Summary:** Two hundred percent SSS were acquired over the navigable portion of the 1000m radius. 85% of the radius was covered by SWMB; areas not covered were not part of the channel or did not have any contact developments. Several contacts were found in the area. Two contacts, 215\_1910\_005 and 122\_1439\_0004 were identified as wrecks in the radius of AWOIS 10206, however these two contacts were identified as AWOIS items 10207\* and 10208\* respectively. See Item Investigation Report for AWOIS 10207 and 10208. No other contacts matching the AWOIS description of a dangerous wreck were found within the AWOIS radius.

*\* see also page 21 and 22 of this report.*

---

**CHARTING RECOMMENDATION**

**Recommendations:** The hydrographer recommends deleting "wk" at position Lat. 42° 21' 24.35" N, Long. 071° 01' 46.18" W and charting present survey soundings. *Concur*

*Delete dangerous sunken wreck*



AWOIS: 10207

**Item Description:** Wreck (Unknown)

**Source:** LNM 10/1990

**Item Position:** Lat. 42° 21' 38.40" N, Long.071° 01' 51.41" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 250m

---

INVESTIGATION

**Contact No:** H10990\_200\_2001/14HS/2001\_261/215\_1910\_0005

**Date(s):** 241, 261, 262, 264, 276, 282, 288

**Least Depth Position Number:** H10990\_05MB\_282\_481\_2047\_678\_51

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Lat. 42° 21' 37.95 **94**" N, Long.071° 01' 50.53 **56**" W

**Position Determined By:** Differential GPS

**Investigation Summary:** Investigation of this AWOIS item covered 95% of the radius with both 200% SSS and SWMB; the rest of the radius was on land. Several significant contacts were found in the area, one matching the description of AWOIS item 10207. This contact (215\_1910\_0005) has a SWMB least depth of 10 **12**ft (3.02 **88** m), corrected with ~~verified~~ **approved** tides.

---

CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends deleting the charted "wk" from Lat. 42° 21' 38.40" N, Long.071° 01' 51.41" W and charting a wreck at Lat. 42° 21' 37.95**4**" N, Long.071° 01' 50.53**6**" W with a least depth of 10 **12** ft (3.02 **3.88**m) corrected with ~~verified~~ **approved** tides.

**Concur**

**Delete dangerous sunken wreck, PA**  
**Chart 12 Wk with danger curve**



AWOIS: 10208

**Item Description:** Patty Jean (Wreck)

**Source:** LNM 47/1975

**Item Position:** Lat. 42° 21' 42.35" N, Long. 071° 01' 49.18" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 1000m

---

#### INVESTIGATION

**Contact No:** H10990\_100\_2001/14HS/2001\_241/122\_1439\_0004

**Date(s):** 241, 261, 262, 264, 276, 282, 288

**Least Depth Position Number:** H10990\_05MB\_282\_482\_2050\_1076\_13 **288\_421\_1272\_296\_34**

**Investigation Used:** 200% SSS, 100% SWMB

**Surveyed Position:** Latitude 42° 21' 43.52 **35**" N, Longitude 071° 01' 48.70 **68**" W

**Position Determined By:** Differential GPS

**Investigation Summary:** The investigation covered 95% of the assigned 1000m radius with 200% SSS and 100% SWMB; the area not covered was too shoal for launch operations. One significant contact was found (122\_1439\_0004) and identified as a wreck. The item had a SWMB least depth of 10 ft (3.16 **12** m), corrected using ~~verified~~ **approved** tides.

---

#### CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends deleting the "wk" at position 42° 21' 42.35" N, 071° 01' 49.18" W and charting a wreck at the position 42° 21' 43.52 **35**" N, 071° 01' 48.70 **68**" W with a least depth of 10 ft (3.16 **3.12** m) corrected using ~~verified~~ **approved** tides.  
**Concur**

*Delete dangerous sunken wreck, PA  
Chart 10 Wk with danger curve*

**AWOIS:** 10239

**Item Description:** Obstruction

**Source:** CL 1984/1975

**Item Position:** Lat. 42° 21' 22.4" N, Long. 070° 58' 13.2" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272, 13270

**Radius:** 250m

---

#### INVESTIGATION

**Contact No:** N/A

**Date(s):** 263

**Least Depth Position Number:** H10990\_14VB\_263\_092\_1846\_444\_1

**Investigation Used:** 100% SSS

**Surveyed Position:** Latitude 42° 21' 45.46 **22.40**" N, Longitude 070° 59' 09.24 **58'13.20**" W

**Position Determined By:** Differential GPS

**Investigation Summary:** The investigation covered 45% of the 250m radius with 100% SSS; the remaining 55% was too shallow for launch work or on land. No significant contacts were found within the investigation radius.

---

#### CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends retaining the "Obstn rep PA" at position 42° 21' 22.4" N, 070° 58' 13.2" W, due to insufficient findings. **Concur**

**AWOIS:** 10240

**Item Description:** Shoaling 2 ft rep (obstruction)

**Source:** LNM 25/1998

**Item Position:** Lat. 42° 21' 48.0" N, Long. 070° 58' 36.0" W

**Required Investigation:** ES

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 500m

---

INVESTIGATION

**Contact No:** NA

**Date(s):** 263

**Least Depth Position Number:** H10990\_14VB\_089\_1944\_1931\_1

**Investigation Used:** VBES

**Surveyed Position:** Latitude 42° 21' 48.77" N, Longitude 070° 58' 36.44" W

**Position Determined By:** Differential GPS

**Investigation Summary:** The investigation covered 20% of the 500m radius with vertical beam; the remainder of the radius was too shallow for launch work or was on land. No significant contacts were found in the area. The least depth found by vertical beam in this area was 7 ft, corrected using ~~verified~~ *approved* tides.

---

CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends deleting the "shl (2ft rep)" at position 42° 21' 48.0 N, 070° 58' 36.0" W and charting present survey depths. ***Do not concur***

***Item was not adequately investigated.  
Retain as charted.***

**AWOIS: 10241**

**Item Description:** Sunken Vessel (Unknown)

**Source:** CL 467/1993; CL 952/1998

**Item Position:** Lat. 42° 21' 08.0" N, Long. 070° 58' 30.0" W

**Required Investigation:**

**Status:** Disproved

**Charts Affected:** 13272

**Radius:** 0m

---

INVESTIGATION

**Contact No:** NA

**Date(s):**

**Least Depth Position Number:**

**Investigation Used:**

**Surveyed Position:**

**Position Determined By:**

**Investigation Summary:** CL952/1998--USCG Auxiliary; A cement boat, hull and mast were completely raised (9/10/97) from the bottom, to a barge by a crane. (This was confirmed by USCG ATON section, 1 ST CGD correspondence with NDB. Reference LNM41/1997). Entered 3/1999.

---

CHARTING RECOMMENDATION

**Recommendations:** AWOIS 10241 has been disproven, as reported in the AWOIS database.

*Concur*

*Item not shown on charts 13272, 47<sup>th</sup> ED., Mar10/01 or 13270, 59<sup>th</sup> ED., Jul 14/01  
No change in charting recommended.*

AWOIS: 10242

**Item Description:** Wreck (Unknown)

**Source:** CL 786/1963; LNM 33/1963

**Item Position:** Lat. 42° 22' 39.35" N, Long. 070° 59' 38.17" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 250m

---

#### INVESTIGATION

**Contact No:** H10990\_100\_2001/14HS/2001\_297/790\_1453\_0003

**Date(s):** 292, 297, 308

**Least Depth Position Number:** Time 18:18 DLDG, H10990\_05MB\_294\_725\_1634\_229\_76

**Investigation Used:** 100% SSS, 100% MB, DI

**Surveyed Position:** Latitude 42° 22' 41.03 **14**" N, Longitude 070° 59' 40.94 **98**" W

**Position Determined By:** Differential GPS

**Investigation Summary:** One hundred percent SSS was acquired over 35% of the entire radius; the remaining part of the radius being too shallow for launch work or on land. SWMB was used to develop significant contacts in the radius. One significant contact was found (297\_791\_1453\_0003) and resembled a wreck. Divers determined the wreck to be a 32ft pleasure craft tilted on its side approximately 30°, matching the AWOIS description for Item 10242. The item had a diver's least depth of 12 ft (3.59 m) and the correlating least depth with multibeam was 12ft (3.60 **80** m), both depth values were corrected using ~~verified~~ **approved** tides.

---

#### CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends deleting the "wk" at position 42° 22' 39.35" N, 070° 59' 38.17" W and charting a wreck at position 42° 22' 41.03 **14**" N, 070° 59' 40.94 **98**" W with a least depth of 12 ft (3.60 **80** m), corrected using ~~verified~~ **approved** tides.

*Concur with clarification*

*Delete charted dangerous sunken wreck*

*The present survey wreck was located near a charted Obstrn in the vicinity of Latitude 42° 22' 40.70" N, Longitude 070° 59' 41.30" W.*

*It is recommended that the dangerous submerged obstruction be deleted.*

*Add a 12Wk with danger curve in Latitude 42° 22' 41.14" N, Longitude 070° 59' 40.98" W.*

PROJECT: OPR-A397-WH-01

SURVEY: APPROACHES TO BOSTON, MA H10990\_A  
DATE OF DIVE: 11-04-2001

NOAA UNIT: WHITING - LAUNCH #2

YEAR: 2001

AWOIS NUMBER: 10242

FIX NUMBER: 45568

CONTACT NUMBER: 2001-297/790\_1543

3

CAST TABLE NUMBER: 00

CAST INSTRUMENT: SEACAT S/N:2530 CD:12/9/00

DAY OF CAST (UTC): 308

TIME OF CAST (UTC): 20:42

DIVER GAUGE SERIAL NUMBER: 68332

DAY OF DIVE (UTC): 308

TIME OF LD MEASUREMENT (UTC): 18:18

LATITUDE OF DIVE: 42/22/41.03 N

LONGITUDE OF DIVE: 070/59/40.91 W

PREDIVE GAUGE PRESSURE (psia): 14.67

GAUGE PRESSURE AT DESIGNATED LEAST DEPTH (psia): 24.52

#### RESULTS

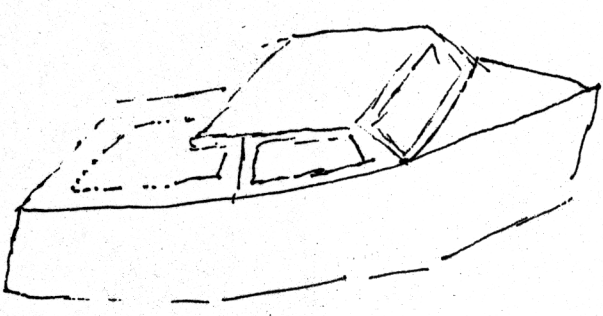
COMPUTED LEAST DEPTH (m): 6.82  
TIDE CORRECTOR (m): -3.23  
CORRECTED LEAST DEPTH (m): 3.59

#### COMMENTS AND RECOMMENDATIONS:

32 foot Pleasure craft tilted on its side approximately 30 degrees

25-A

NOAA Ship WHITING  
Dive Investigation Report  
Dive No. 308. 3

Survey Information			
AWOIS Item:		Description:	
Date: November 4, 2001			
Latitude - Longitude		SSS Contacts	
SWMB day/line/time/ping/beam		VBES Positions	
SWMB Depth		VBES Depth	
Dive Information			
Dive Master: LT Brennan		Time In: 1313 LMT	
Dive Tender: AB Branniff		Time Out: 1321 LMT	
Diver #1: SEIFERT 1600		Max Depth:	
Diver #2: Ewell 1900		Visibility/Current:	
Diver's Least Depth Gauge Information			
Gauge Number:		CTD Location:	
Pre-Dive Deck Pressure:	14.67	CTD Time:	
Least Depth Pressure:	24.52	DLDG Depth:	
Post-Dive Deck Pressure:		Tide Corrector:	
Time of Least Depth:	1818 UTC	Item Least Depth:	
Narrative Report:			
<p>32' PLEASURE CRAFT</p> <div style="text-align: center; margin: 20px 0;">  </div> <p style="text-align: right; margin-right: 50px;">TILTED ONTO THE SIDE ~30°</p>			

AWOIS: 10243

**Item Description:** Visible Wreck (Unknown)

**Source:** BP 88574

**Item Position:** Lat. 42° 22' 50.0" N, Long. 070° 59' 35.0" W

**Required Investigation:** SD, VS, S2

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 200m

---

INVESTIGATION

**Contact No:** NA

**Date(s):** 292, 294, 297

**Least Depth Position Number:**

**Investigation Used:** 100% SSS, SWMB

**Surveyed Position:** Latitude 42° 21' 45.46 **22' 50.00"** N, Longitude 070° 59' 09.24 **35.00"** W

**Position Determined By:** Differential GPS

**Investigation Summary:** The investigation covered 30% of the entire assigned 200m radius with 100% SSS, the remaining radius was not investigated due to shallow water, a marina, and part of the radius being on land. One significant contact, 292\_964\_1717\_001, was developed with SWMB and identified as a wreck, however it didn't match the AWOIS description for item 10243. Item 292\_964\_1717\_001 is described in a following item investigation *See page 28, AWOIS 10244 for charting recommendation of this item.*

---

CHARTING RECOMMENDATION

**Recommendations:** Hydrographer recommends deleting charted wreck from position 42° 21' 45.46 **22' 50.00"** N, 070° 59' 09.24 **35.00"** W. Visual sightings of the area indicated that the wreck had been removed to build the Pleasant Park Yacht Club. Verbal contact with a yacht club employee provided the name and number of the Winthrop Harbormaster (Charlie Famolare, 617-846-0266). After several attempts, the hydrographer has been unable to contact Mr. Famolare to confirm the removal of the wreck. *Concur w/clarification*

*A telephone discussion with Mr. Charlie Famolare on 12/03/2002 has verified that the wreck has been removed. Delete visible Wreck*



AWOIS: 10244

**Item Description:** Wreck (Unknown)

**Source:** CL 1984/1975

**Item Position:** Lat. 42° 22' 51.7" N, Long. 070° 59' 44.20" W

**Required Investigation:** SD, S2, SWMB, DI

**Status:** Assigned

**Charts Affected:** 13272

**Radius:** 500m

---

INVESTIGATION

**Contact No:** H10990\_100\_2001/14HS/2001\_292/964\_1717\_0001  
H10990\_100\_2001/14HS/2001\_292/964\_1717\_0002  
H10990\_100\_2001/14HS/2001\_297/791\_1507\_0001

**Date(s):** 292, 294, 297, 308

**Least Depth Position Number:** Time 19:46 DLDG, H10990\_05MB\_294\_724\_1646\_159\_20  
*1643\_320\_21*

**Investigation Used:** 100% SSS, 100% SWMB, DI

**Surveyed Position:** Latitude 42° 22' 51.7 *72*" N, Longitude 070° 59' ~~44.20~~ *43.96*" W

**Position Determined By:** Differential GPS

**Investigation Summary:** The investigation covered 40% of the assigned 500 m radius with 100% SSS; the additional 60% of the radius was too shallow for launch operations or on land. Significant contacts were investigated with SWMB developments; one contact (292\_964\_1717\_0002) matched the description of the AWOIS Item 10244. Divers found a 45 foot vessel in the AWOIS 10244 charted location. The DLDG least depth is 15 feet (4.74 *6* m) and the SWMB least depth was 15 ft (~~4.53~~ *3.66* m), both depths were corrected using ~~verified~~ *approved* tides.

---

CHARTING RECOMMENDATION

**Recommendations:** The hydrographer recommends retaining the Wk charted at position latitude 42° 22' 51.7" N, longitude 070° 59' 44.20" W with a least depth of 15 ft (4.53 m), corrected with ~~verified~~ *approved* tides. *Do not concur*  
*Delete dangerous sunken wreck, PA*  
*Chart 15 Wk with danger curve in Lat 42° 22' 51.72" N, Lon 070° 59' 43.96" W.*

LEAST DEPTH REPORT, VELOCITY PROGRAM, Version 6.00

PROJECT: OPR-A397-WH-01

SURVEY: APPROACHES TO BOSTON, MA H10990\_A  
DATE OF DIVE: 11-04-2001

NOAA UNIT: WHITING - LAUNCH #2

YEAR: 2001

AWOIS NUMBER: 10244

FIX NUMBER: 45570

CONTACT NUMBER: 2001-292/964\_1717/0002

CAST TABLE NUMBER: 00

CAST INSTRUMENT: SEACAT S/N:2530 CD:12/9/00

DAY OF CAST (UTC): 308

TIME OF CAST (UTC): 20:42

DIVER GAUGE SERIAL NUMBER: 68332

DAY OF DIVE (UTC): 308

TIME OF LD MEASUREMENT (UTC): 19:46

LATITUDE OF DIVE: 42/22/51.74 N

LONGITUDE OF DIVE: 070/59/44.02 W

PREDIVE GAUGE PRESSURE (psia): 14.51

GAUGE PRESSURE AT DESIGNATED LEAST DEPTH (psia): 25.14

RESULTS

COMPUTED LEAST DEPTH (m): 7.35  
TIDE CORRECTOR (m): -2.61  
CORRECTED LEAST DEPTH (m): 4.74

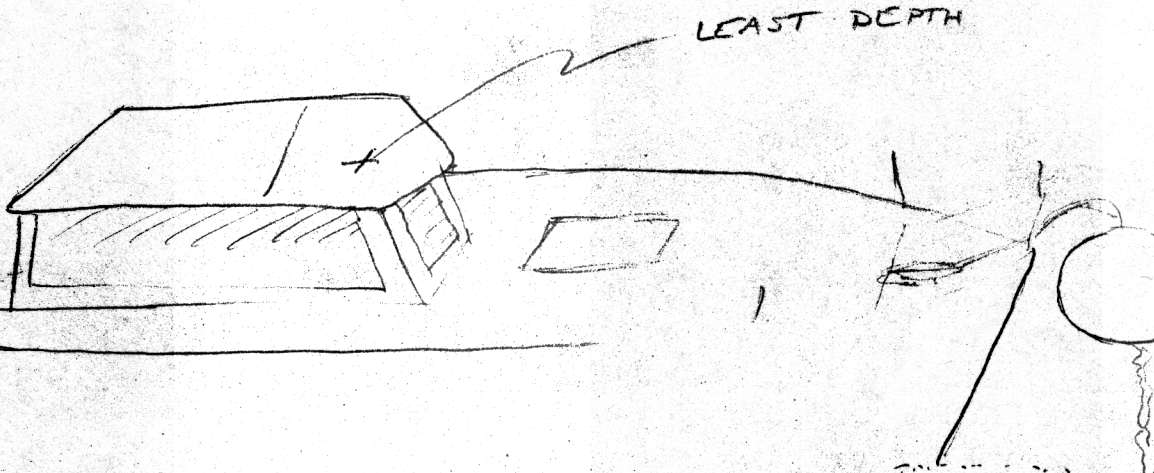
COMMENTS AND RECOMMENDATIONS:

45 foot  
wreck

5

27-A

NOAA Ship WHITING  
Dive Investigation Report  
Dive No. 308. -5

Survey Information			
AWOIS Item:		Description:	
Latitude - Longitude		SSS Contacts	
SWMB day/line/time/ping/beam		VBES Positions	
SWMB Depth		VBES Depth	
Dive Information			
Dive Master: LT Brennan		Time In: <del>1440</del> 1440	
Dive Tender: AB Branniff		Time Out: 1453	
Diver #1: LT. BRENNAN		Max Depth: 33/13mm	
Diver #2: LT. SEIFERT		Visibility/Current: 6' / 0	
Diver's Least Depth Gauge Information			
Gauge Number:		CTD Location:	
Pre-Dive Deck Pressure:	14.51	CTD Time:	
Least Depth Pressure:	25.14	DLDG Depth:	
Post-Dive Deck Pressure:		Tide Corrector:	
Time of Least Depth:	14:46 (UTC)	Item Least Depth:	
Narrative Report:			
<p>45' WRECK      19:46</p> <p>TWO WRECKS SEEM TO HAVE SUNK AT MOORING. WRECKS LIE SIDE-BY-SIDE. LEAST DEPTH TAKEN ON TALLEST (SOUTHERN) WRECK.</p>			
			



**Contact: 292\_964\_1717\_0001**

Item Description: 28 foot wooden pleasure craft

Source: 100% SSS, SWMB, DI

Item Position: 42° 22' 49.56" N, 070° 59' 42.82" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 123270, 13272

---

#### INVESTIGATION

Correlating Contacts: 292\_964\_1717\_0001

Date(s): 292, 297, 308

Least Depth Position Number: Time 18:48 DLDG, H10990\_05MB\_294\_723\_1641\_291\_34 **1639\_213\_87**

Investigation Used: 200% SSS, 100% SWMB, Dive

Least Depth Position: 42° 22' 49.56 **58**" N, 070° 59' 42.82 **82**" W

Position Determined By: Differential GPS

Investigation Summary: Contact 292\_964\_1717\_0001 was identified as a wreck during 100% SSS operations. Multibeam development lines were run over the contact and later it was investigated by divers. The contact was found to be a 28 ft wooden pleasure boat with a DLDG of depth of 16 ft (4.85 m), corrected with verified tides. A correlating least depth of 17 ft (5.13 **5.35** m) was acquired by SWMB and corrected using ~~verified~~ **approved** tides.

---

#### CHARTING RECOMMENDATION

The hydrographer recommends charting a wreck with least depth of ~~16~~ **17** ft (~~4.85~~ **5.35** m), corrected using ~~verified~~ **approved** tides, at position 42° 22' 49.56 **58**" N, 070° 59' 42.82 **82**" W. **Concur**

***Chart 17 Wk with danger curve***

LEAST DEPTH REPORT, VELOCITY PROGRAM, Version 6.00

PROJECT: OPR-A397-WH-01

SURVEY: APPROACHES TO BOSTON, MA H10990\_A  
DATE OF DIVE: 11-04-2001

11/A/01

4

NOAA UNIT: WHITING - LAUNCH #2

YEAR: 2001

AWOIS NUMBER: 10244

FIX NUMBER: 45669

CONTACT NUMBER: 2001-292/964\_1717

CAST TABLE NUMBER: 00

CAST INSTRUMENT: SEACAT S/N:2530 CD:12/9/00

DAY OF CAST (UTC): 308

TIME OF CAST (UTC): 20:42

DIVER GAUGE SERIAL NUMBER: 68332

DAY OF DIVE (UTC): 308

TIME OF LD MEASUREMENT (UTC): 18:48

LATITUDE OF DIVE: 42/22/49.56 N

LONGITUDE OF DIVE: 070/59/42.82 W

PREDIVE GAUGE PRESSURE (psia): 14.59

GAUGE PRESSURE AT DESIGNATED LEAST DEPTH (psia): 26.10

RESULTS

COMPUTED LEAST DEPTH (m): 7.96

TIDE CORRECTOR (m): -3.11

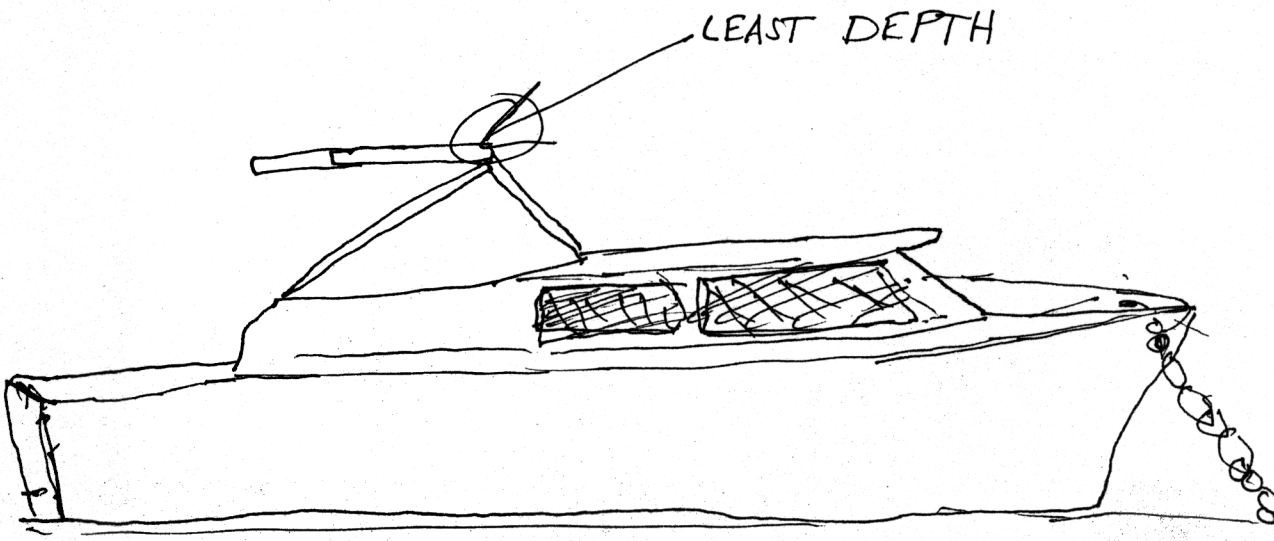
CORRECTED LEAST DEPTH (m): 4.85

COMMENTS AND RECOMMENDATIONS:

28 foot Wooden pleasure craft  
(Wreck).

28-A

NOAA Ship WHITING  
Dive Investigation Report  
Dive No. 308. 4

Survey Information			
AWOIS Item:		Description:	Date: November 4, 2001
Latitude - Longitude		SSS Contacts	
SWMB day/line/time/ping/beam		VBES Positions	
SWMB Depth		VBES Depth	
Dive Information			
Dive Master: LT Brennan		Time In: 1343 LMT	
Dive Tender: AB Branniff		Time Out: 1351 LMT	
Diver #1: SEIFERT	3200/2500	Max Depth: 36 ft / 7m	
Diver #2: ELWELL	3100/2400	Visibility/Current: 5 ft / 0	
Diver's Least Depth Gauge Information			
Gauge Number:		CTD Location:	
Pre-Dive Deck Pressure:	14.59	CTD Time:	
Least Depth Pressure:	26.1	DLDG Depth:	
Post-Dive Deck Pressure:		Tide Corrector:	
Time of Least Depth:	1848 UTC	Item Least Depth:	
Narrative Report:			
28' ft WOODEN WRECK			
			

**Contact: 292\_968\_1231\_0001**

Item Description: Wreck

Source: 100% SSS

Item Position: 42° 22' 51.20" N, 071° 00' 20.47" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 123270, 13272

---

#### INVESTIGATION

Correlating Contacts: 292\_968\_1231\_0001

Date(s): 292, 297, 308

Least Depth Position Number: Time 20:17 DLDG, H10990\_05MB\_294\_050\_1659\_154\_66  
*729\_1651\_116\_17*

Investigation Used: 200% SSS, 100% SWMB, Dive

Least Depth Position: 42° 22' 51.20 *32*" N, 071° 00' 20.47 *25*" W

Position Determined By: Differential GPS

Investigation Summary: Contact 292\_968\_1231\_0001 was identified as a wreck during 100% SSS operations. SWMB development lines were run to investigate the contact and divers confirmed that the contact was a wreck. A DLDG depth of 15 ft (4.77 m), corrected with verified tides, was determined. A correlating least depth of 16 *17* ft (4.93 *5.14* m) was acquired by SWMB and corrected using verified *approved* tides.

---

#### CHARTING RECOMMENDATION

The hydrographer recommends charting a wreck with least depth of ~~15~~ *17* ft (~~4.77~~ *5.14* m), corrected using verified *approved* tides, at position 42° 22' 51.20 *32*" N, 071° 00' 20.47 *25*" W *Concur*

*Chart 17 Wk with danger curve*



PROJECT: OPR-A397-WH-01

SURVEY: APPROACHES TO BOSTON, MA H10990\_A  
DATE OF DIVE: 11-04-2001

NOAA UNIT: WHITING - LAUNCH #2 YEAR: 2001

AWOIS NUMBER: NONE

FIX NUMBER: 45572

CONTACT NUMBER: 2001-292/968\_1231

CAST TABLE NUMBER: 00

CAST INSTRUMENT: SEACAT S/N:2530 CD:12/9/00

DAY OF CAST (UTC): 308

TIME OF CAST (UTC): 20:42

DIVER GAUGE SERIAL NUMBER: 68332

DAY OF DIVE (UTC): 308

TIME OF LD MEASUREMENT (UTC): 20:17

LATITUDE OF DIVE: 42/22/51.20 N

LONGITUDE OF DIVE: 071/00/20.47 W

PREDIVE GAUGE PRESSURE (psia): 14.52

GAUGE PRESSURE AT DESIGNATED LEAST DEPTH (psia): 24.69

#### RESULTS

COMPUTED LEAST DEPTH (m): 7.04

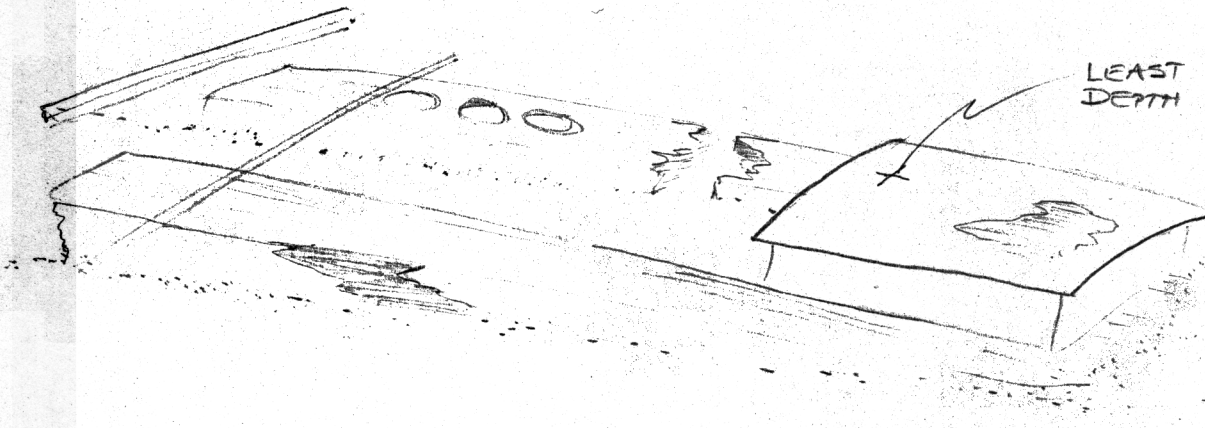
TIDE CORRECTOR (m): -2.27

CORRECTED LEAST DEPTH (m): 4.77

#### COMMENTS AND RECOMMENDATIONS:

Wreck

NOAA Ship WHITING  
Dive Investigation Report  
Dive No. 308-6

Survey Information			
AWOIS Item:		Description:	
Latitude - Longitude		SSS Contacts	
SWMB day/line/time/ping/beam		VBES Positions	
SWMB Depth		VBES Depth	
Dive Information			
Dive Master: LT Brennan		Time In: 1515	
Dive Tender: AB Branniff		Time Out: 1520	
Diver #1: LT. BRENNAN 2100 P216		Max Depth:	
Diver #2: LTJL. SEIFERT 1600 P216		Visibility/Current:	
Diver's Least Depth Gauge Information			
Gauge Number:	68332	CTD Location:	
Pre-Dive Deck Pressure:	14.52	CTD Time:	
Least Depth Pressure:	24.69	DLDG Depth:	
Post-Dive Deck Pressure:		Tide Corrector:	
Time of Least Depth:	1517 (UTC)	Item Least Depth:	
Narrative Report: 2017			
			

**Contact: 241\_001\_1337\_0001**

Item Description: Wreck

Source: 100% SSS

Item Position: 42° 22' 08.37" N, 071° 03' 10.84" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 13272

---

#### INVESTIGATION

Correlating Contacts: 241\_001\_1337\_0001

Date(s):241

Least Depth Position Number: H10990\_05MB\_232\_010\_1529\_866\_91

Investigation Used: 100% SSS, SWMB

Least Depth Position: 42° 22' 08.37 **21**" N, 071° 03' 10.84 **88**" W

Position Determined By: Differential GPS

Investigation Summary: Contact 241\_001\_1337\_0001 was identified as a wreck during 100% SSS operations and developed with SWMB. The contact has a SWMB least depth of ~~19~~ **18** ft (5.75 **53** m), corrected using ~~verified~~ **approved** tides.

---

#### CHARTING RECOMMENDATION

The hydrographer recommends charting a wreck with least depth of ~~19~~ **18** ft (5.75 **53** m), corrected with ~~verified~~ **approved** tides, at position 42° 22' 08.37 **21**" N, 071° 03' 10.84 **88**" W. **Concur**

***Chart 18 Wk with danger curve***

**Contact: 241\_007\_1333\_0001**

Item Description: Wreck

Source: 100% SSS

Item Position: 42° 22' 14.77" N, 071° 03' 04.97" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 13272

---

#### INVESTIGATION

Correlating Contacts: 241\_007\_1333\_0001

Date(s):241

Least Depth Position Number: H10990\_05MB\_232\_009\_1526\_~~378\_10~~<sup>393\_11</sup>

Investigation Used: 100% SSS, SWMB

Least Depth Position: 42° 22' 14.77" **73"** N, 071° 03' 04.97" **93"** W

Position Determined By: Differential GPS

Investigation Summary: Contact 241\_007\_1333\_0001 was identified as a wreck during 100% SSS operations and was developed with SWMB. The contact has a SWMB least depth of ~~33~~ **29** ft (~~10.16~~ **8.8** m), corrected using ~~verified~~ **approved** tides.

---

#### CHARTING RECOMMENDATION

The hydrographer recommends charting a wreck with least depth of 33 ft (~~10.16~~ **8.8** m), corrected using ~~verified~~ **approved** tides, at position 42° 22' 14.77" **73"** N, 071° 03' 04.97" **93"** W

**Concur**

***Chart 29 Wk with danger curve***

**Contact: 292\_964\_1717\_0005**

Item Description: Wreck

Source: 100% SSS

Item Position: 42° 22' 26.13" N, 071° 00' 41.06" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 13272, 13270

---

#### INVESTIGATION

Correlating Contacts: 292\_964\_1717\_0005

Date(s): 292, 294

Least Depth Position Number: H10990\_05MB\_294\_~~739\_1710\_1612\_82~~ **738\_1701\_1890\_12**

Investigation Used: 100% SSS, SWMB

Least Depth Position: 42° 22' 26.13 **02**" N, 071° 00' 41.06 **25**" W

Position Determined By: Differential GPS

Investigation Summary: Contact 292\_964\_1717\_0005 was identified as a wreck during 100% SSS operations. SWMB developments were run over the contact. The SWMB least depth was 8.37 **9** ft (2.55 **77** m), corrected using ~~verified~~ **approved** tides.

---

#### CHARTING RECOMMENDATION

The hydrographer recommends charting a wreck at position 42° 22' 26.13 **02**" N, 071° 00' 41.06 **25**" W with least depth of 8 **9** ft (2.55 **77** m), corrected using ~~verified~~ **approved** tides. **concur**

***This wreck was submitted as DTON (#5). See page 39.  
Chart 9 Wk with danger curve***



**Contact: 241\_113\_1829\_0002**

Item Description: Wreck

Source: 100% SSS

Item Position: 42° 20' 30.81" N, 071° 01' 54.10" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 13272

---

#### INVESTIGATION

Correlating Contacts: 241\_113\_1829\_0002

Date(s): 241, 275, 284

Least Depth Position Number: H10990\_05MB\_284\_433\_1907\_3602\_29

Investigation Used: 200% SSS, 100% SWMB

Least Depth Position: 42° 20' 30.81" **64**" N, 071° 01' 54.10" **16**" W

Position Determined By: Differential GPS

Investigation Summary: Contact 241\_113\_1829\_0002 was identified as a wreck during 100% SSS operations. The contact was investigated with 200% SSS and SWMB developments, providing a least depth of ~~32~~**31** ft (9.74**56** m), corrected using ~~verified~~ **approved** tides.

---

#### CHARTING RECOMMENDATION

The hydrographer recommends charting a wreck with least depth of ~~32~~**31** ft (9.74**56** m), corrected using ~~verified~~ **approved** tides, at position 42° 20' 30.81" **64**" N, 071° 01' 54.10" **16**" W. **concur**

***Chart 31 Wk with danger curve***

**Contact: 241\_117\_1911\_0001**

Item Description: Obstruction

Source: 100% SSS

Item Position: 42° 21' 41.85" N, 071° 02' 36.18" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 13272

---

#### INVESTIGATION

Correlating Contacts: 241\_117\_1911\_0001

Date(s):241

Least Depth Position Number: H10990\_05MB\_281\_543\_2145\_1064\_11

Investigation Used: 200% SSS, 100% SWMB, DI

Least Depth Position: 42° 21' 41.85 **94**" N, 071° 02' 36.18 **15**" W

Position Determined By: Differential GPS

Investigation Summary: Contact 241\_117\_1911\_0001 was identified as a manmade object during 100% SSS operations. The contact was investigated with 200% SSS, 100% SWMB and a dive. The dive indicated that the obstruction was a block of railroad ties laced together as well as other metal debris. The DLDG depth, taken on a broken railroad tie which was standing vertically off the bottom, was 39 ft (12.09 m). A correlating SWMB least depth was 39 ft (11.94 m). Both depths were corrected using ~~verified~~ **approved** tides.

---

#### CHARTING RECOMMENDATION

The hydrographer recommends charting an obstruction at position 42° 21' 41.85 **94**" N, 071° 02' 36.18 **15**" W with a least depth of 39 ft (11.94 m), corrected using ~~verified~~ **approved** tides.

**concur**

***Chart 39 Obstn with danger curve***



LEAST DEPTH REPORT, VELOCITY PROGRAM, Version 6.00

PROJECT: OPR-A397 SURVEY: H10990 DATE OF DIVE: 11-04-2001

NOAA UNIT: WHITING - 1014 YEAR 2001  
AWOIS NUMBER: NONE FIX NUMBER: DIVE1 CONTACT NUMBER:  
117\_1911\_0001

CAST TABLE NUMBER: 00 CAST INSTRUMENT: SEACAT S/N:2530 CD:12/9/00  
DAY OF CAST (UTC): 308 TIME OF CAST (UTC): 20:43

DIVER GAUGE SERIAL NUMBER: 68332  
DAY OF DIVE (UTC): 308 TIME OF LD MEASUREMENT (UTC): 16:06  
LATITUDE OF DIVE: 42/21/41.85 N  
LONGITUDE OF DIVE: 071/02/36.19 W  
PREDIVE GAUGE PRESSURE (psia): 14.57  
GAUGE PRESSURE AT DESIGNATED LEAST DEPTH (psia): 36.06

RESULTS

COMPUTED LEAST DEPTH (m): 14.81  
TIDE CORRECTOR (m): -2.72  
CORRECTED LEAST DEPTH (m): 12.09  
CORRECTED LEAST DEPTH (ft): 39.66

COMMENTS AND RECOMMENDATIONS:

Dive#1, DN 308

A large mat made out of railroad ties was found at this location. Other metal debris was seen in this area. Least depth was taken on a broken railroad tie which was standing vertically off the bottom.

NOAA Ship WHITING  
Dive Investigation Report  
Dive No. 308. -1

Survey Information			
AWOIS Item:		Description:	Date: November 4, 2001
Latitude - Longitude		SSS Contacts	
SWMB day/line/time/ping/beam		VBES Positions	
SWMB Depth		VBES Depth	
Dive Information			
Dive Master: LT Brennan		Time In: 10:54 51' FEET - 15 MIN.	
Dive Tender: AB Branniff		Time Out: 11:10	
Diver #1: LT BRENNAN 2850 PSIG		Max Depth: 51	
Diver #2: LT JG SEIFERT 3200 PSIG		Visibility/Current: 5' / 0	
Diver's Least Depth Gauge Information			
Gauge Number:	68332	CTD Location:	
Pre-Dive Deck Pressure:	14.57	CTD Time:	
Least Depth Pressure:	36.06	DLDG Depth:	
Post-Dive Deck Pressure:	14.67	Tide Corrector:	
Time of Least Depth:	1606 UTC	Item Least Depth:	
Narrative Report:			
<p style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">RAILROAD TIES LACED TOGETHER</p> <p style="position: absolute; top: 10%; left: 30%;">L.D.</p>			

## Dangers to Navigation

A total of 5 Dangers to Navigation (Dton) were reported by the Hydrographer to N/CS33 (AHB). For the complete Dton report (dated January 25, 2002) see **Appendix I**.

*An additional report of 2 DTOns was submitted by the Atlantic Hydrographic Branch during office processing. Additional DTOn report is appended to Evaluation Report.*

## D. 2. ADDITIONAL RESULTS

### Aids to Navigation (ATOns)

All aids to navigation surveyed were on station and matched the light list description and charted position. The following is a list of all ATOns that were positioned during this survey, but not in the light list. For a pictorial description of all ATOns see **Appendix V**. \*

*\* Data filed with original field records.*

*See also Evaluation Report section D.9), D.19), and D.26) for additional information.*

*Defer to MCD Update Service Branch for chart recommendations for Aids to Navigation.*

ATON	Light List #	Latitude Longitude (surveyed position)
G "5" Fl G 4s	N/A	42° 19' 02. <b>23</b> " N 071° 01' 16. <b>17</b> " W
R N "6"	N/A	42° 19' 01. <b>61</b> " N 071° 01' 21. <b>72</b> " W
R N "4"	N/A	42° 19' 17. <b>49</b> " N 071° 00' 48. <b>10</b> " W
G C "3"	N/A	42° 19' 27. <b>85</b> " N 071° 00' 08. <b>62</b> " W
R N "2"	N/A	42° 19' 38. <b>35</b> " N 071° 00' 08 <b>02.49</b> " W
R N "2"	N/A	42° 21' 30. <b>37</b> " N 071° 01' 46. <b>19</b> " W
G C "3"	N/A	42° 21' 37. <b>69</b> " N 071° 01' 45. <b>65</b> " W
G C "5a <b>A</b> "	N/A	42° 20' 12. <b>55</b> " N 071° 00' 19. <b>56</b> " W

## **Bottom Samples/Shoreline Verification/Bridges**

Bottom samples were collected to verify charted bottom types. The position and characteristics of each sample acquired (i.e. Log M sheets) can be reviewed in **Appendix V. \***

There were no requirements for shoreline verification on this survey. *concur*

No bridges are located within the survey limits.

## **Detached Positions**

Detached positions were acquired on buoys, dolphins, piers, and range markers. Detached positions are shown on a separate plot and a DP list/pictural description is included in **Appendix V. \***

## **Ferry Routes**

The Boston Harbor is a busy harbor servicing shipping vessels, cruise ships, tour boats, fishing traffic, recreational boaters and many ferry services. Water taxis go from the Airport to several destinations throughout Boston Inner Harbor. There are several high speed ferry companies that run shuttles to Quincy Bay and Provincetown on Cape Cod. Additionally there is a ferry company that runs from the India Wharf area to the USS Constitution and up the Charles and Mystic Rivers.

*concur*

## **Pipelines and Submarine Cables**

No submarine cables were observed with the survey limits of H10990. The Channel also has several tunnels running under it, connecting Governors Island to South Boston, and East Boston to North Boston. The Central Artery Tunnel was observed on side scan and corresponds to the charted location of the tunnel. *concur*

*\* Data filed with original field records.*

**E. APPROVAL SHEET**

OPR-A397-WH  
Massachusetts  
Massachusetts Bay

Boston Inner Harbor  
Survey Registry No. H10990

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

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

Submitted:   
ENS Shannon M. Ristau, NOAA  
Junior Officer

  
LT Richard T. Brennan, NOAA  
Field Operations Officer

Approved and Forwarded:   
CDR Steven R. Barnum, NOAA  
Commanding Officer

## REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number:H10990

Survey Title:State:Massachusetts  
Locality:Massachusetts Bay  
Sub-Locality:Boston Inner Harbor

Project Number:OPR-A397-WH

Field Unit:NOAA Ship WHITING S-329

Survey Date(s):August 20, 2001 - November 4, 2001

Features are reduced to Mean Lower Low Water using Verified Water Levels and are positioned on NAD 83.

Charts affected:13270, 58 **59<sup>th</sup>** edition, ~~October 9, 2001~~, **July 14, 2001**, scale 1:25,000, NAD 83  
13272, 47<sup>th</sup> edition, March 10, 2001, 1:10,000, NAD 83

### DANGERS TO NAVIGATION

There were five dangers to navigation (see chartlets) were discovered during mainscheme hydrography on Sheet H10990, Boston Inner Harbor.

ITEM #	FEATURE	DEPTH (feet)	LATITUDE (N)	LONGITUDE (W)
1	Sounding	19	42° 21' 30.11"	071° 02' 40.10" *
2	Sounding	26	42° 21' 12.38"	071° 01' 24.04" ***
3	Sounding	28	42° 20' 41.56"	071° 00' 30.42" ***
4	Sounding	18	42° 20' 15.78"	070° 59' 48.36" *
5	Wreck	09	42° 22' 26. <b>05</b> " <b>02</b>	071° 00' 41.25" **

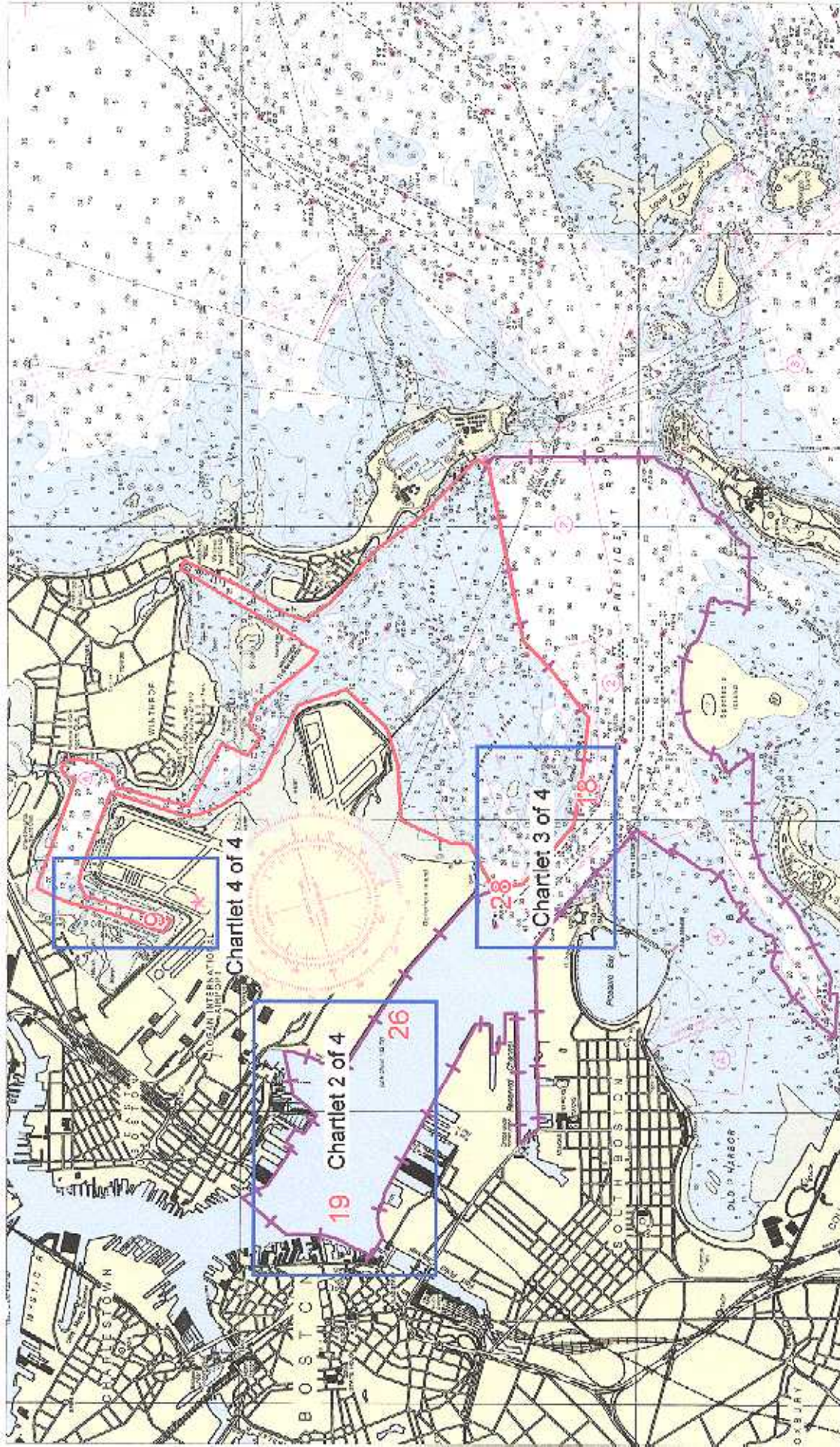
Questions concerning this report should be directed to the Commanding Officer, NOAA Ship WHITING.

**\* Chart above items**

**\*\* See page 33 of this report for charting recommendations**

**\*\*\* Determined insignificant during office processing, recommend items not be charted.**





This chartlet is up to date with the June 2001  
Local Notice to Mariners information.  
**NOT FOR NAVIGATION.**

**Chartlet 1 of 4**  
**KEY**  
Dangers to Navigation Chartlet  
Chart 13270, 58th Edition, October 9th, 2001, Scale 1:25,000, Boston Harbor



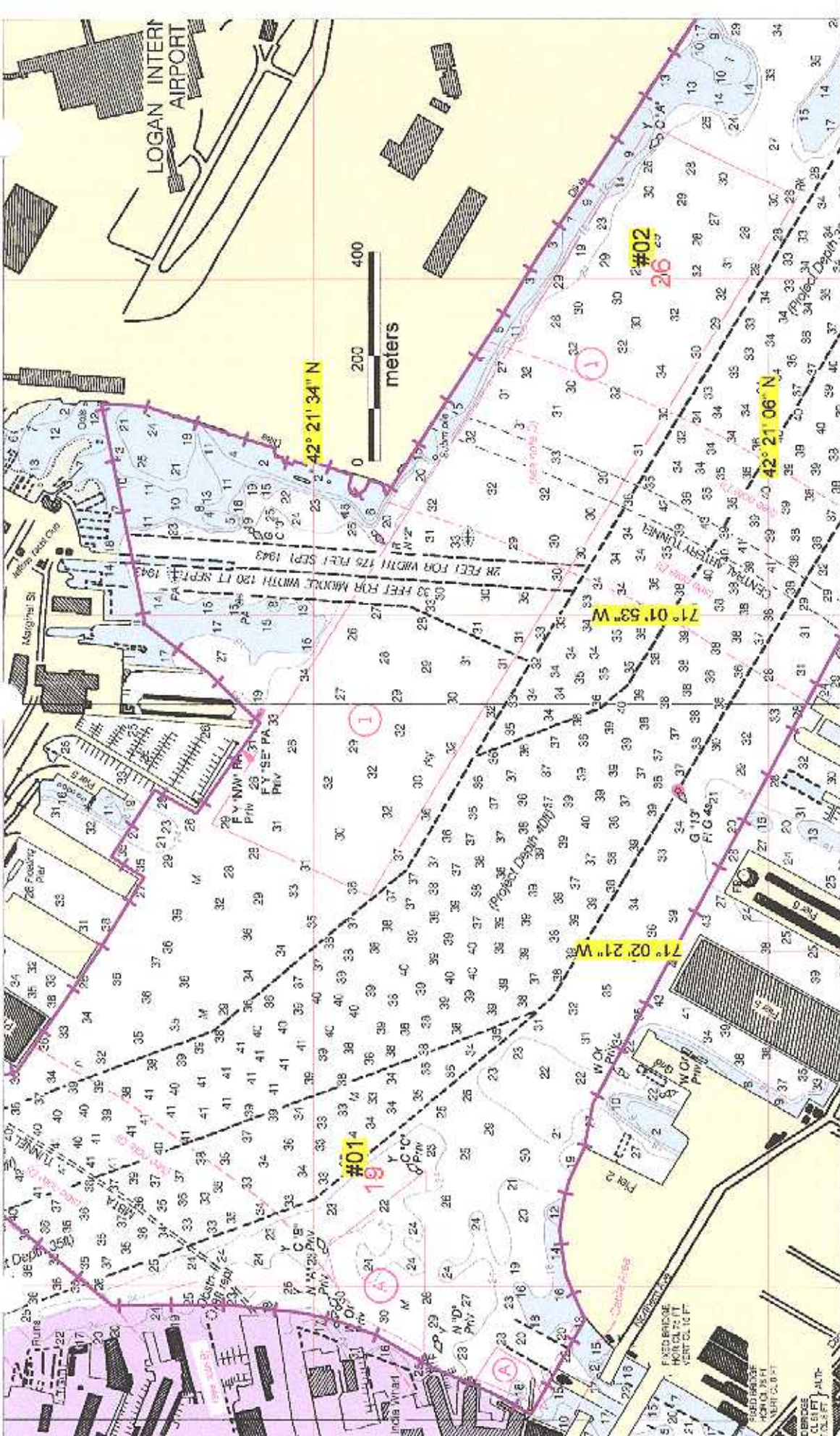
**NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE**

Project OPR-A397-W/H  
Survey H10990  
State: Massachusetts  
Locality: Massachusetts Bay  
Sub-locality: Boston Inner Harbor  
Survey Scale: 1:10,000

Sounding Units: Feet  
Sounding Datum: MLLW  
Horizontal Datum: NAD 83  
Projection: UTM 19  
Central Meridian: 069° 00 00  
Scale Factor: 0.9996

**NOAA Ship WHITING**  
**CDR Steven R. Barnum**  
**Commanding**  
August 20 to  
November 4, 2001





This chartlet is up to date with the June 2001  
Local Notice to Mariners information.  
**NOT FOR NAVIGATION.**

Dangers to Navigation for Survey H10990  
Chart 13272, 47th Edition, March 10th, 2001, Scale 1:10,000, Boston Inner Harbor.

Chartlet 2 of 4  
DTON 1 & 2



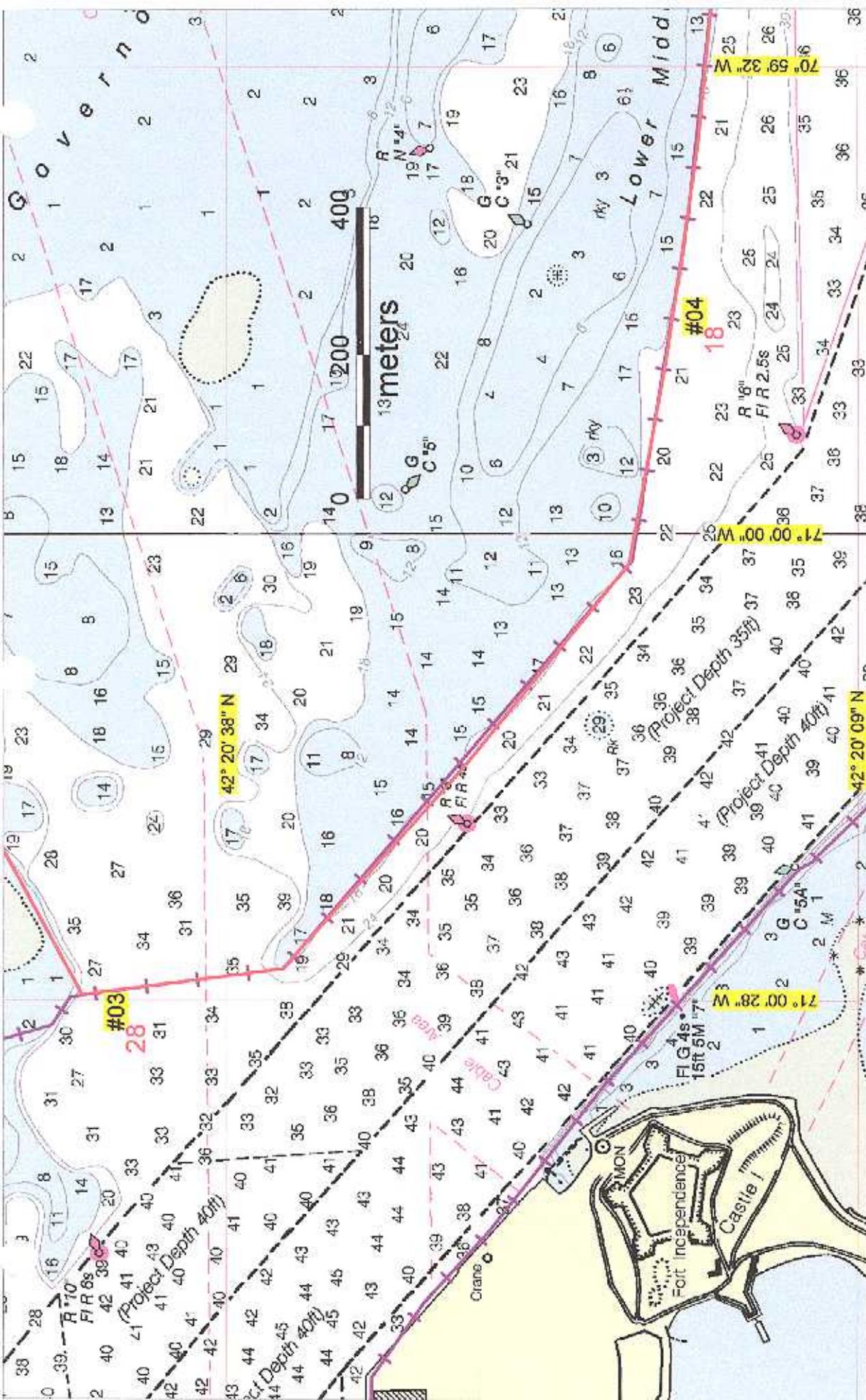
NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE

Project: OPR-4397-WH  
Survey: H10990  
State: Massachusetts  
Locality: Massachusetts Bay  
Sub-locality: Boston Inner Harbor  
Survey Scale: 1:10,000

NOAA Ship WHITING  
CDR Steven R. Barnum  
Commanding  
August 20 to  
November 4, 2001

Sounding Units: Feet  
Sounding Datum: MLLW  
Horizontal Datum: NAD 83  
Projection: UTM 19  
Central Meridian: 069° 00 00  
Scale Factor: 0.9996





This chartlet is up to date with the June 2001  
Local Notice to Mariners information.  
**NOT FOR NAVIGATION.**

Dangers to Navigation for Survey H10990  
Chart 13272, 47th Edition, March 10th, 2001, Scale 1:10,000, Boston Inner Harbor.

Chartlet 3 of 4  
DTON 3 & 4



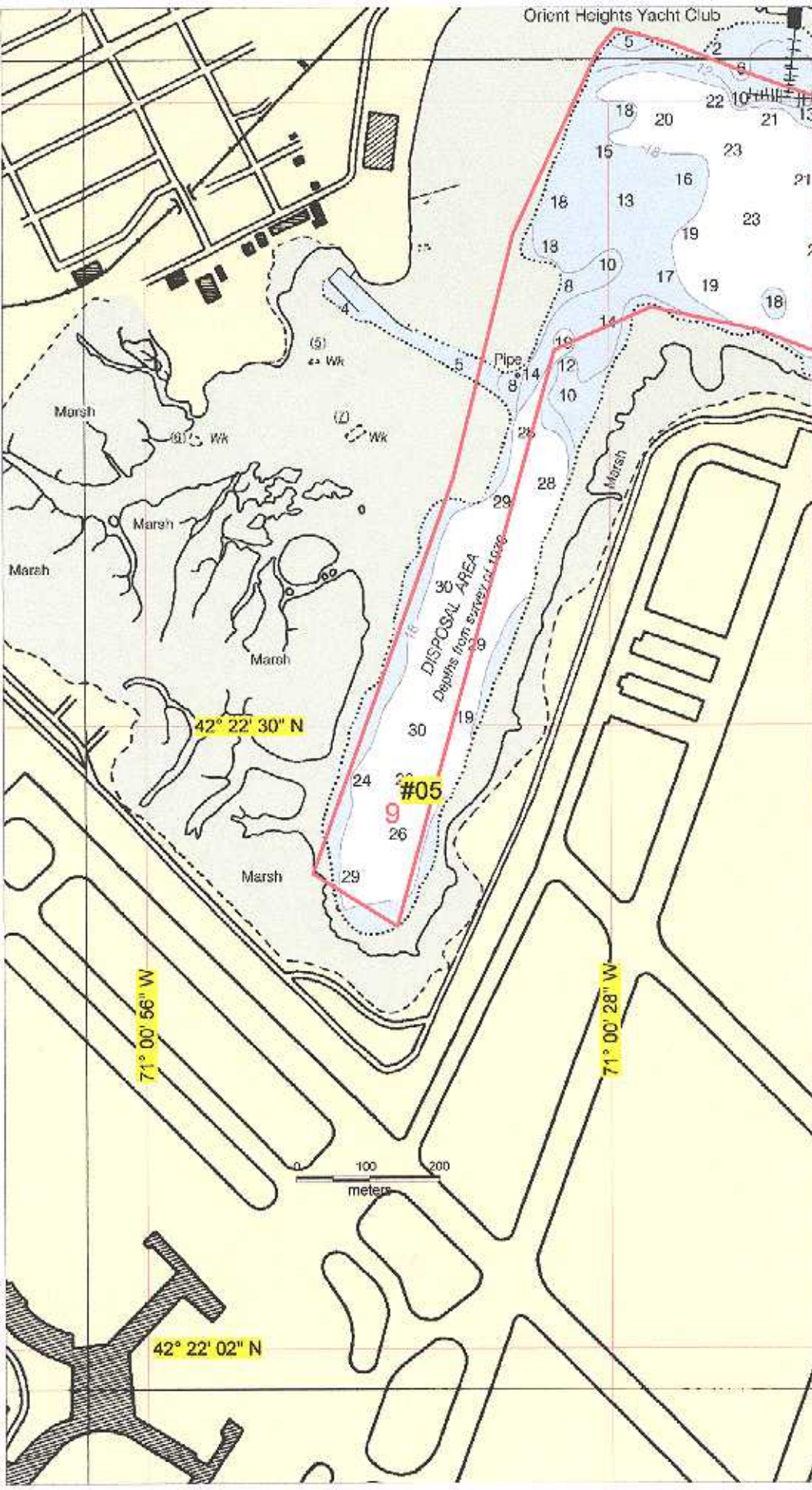
NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE

Project: CPR-A397-WH  
Survey: H10990  
State: Massachusetts  
Locality: Massachusetts Bay  
Sub-locality: Boston Inner Harbor  
Survey Scale: 1:10,000

Sounding Units: Feet  
Sounding Datum: MLLW  
Horizontal Datum: NAD 83  
Projection: UTM 19  
Central Meridian: 069° 00' 00"  
Scale Factor: 0.9996

**NOAA Ship WHITING**  
**CDR Steven R. Barnum**  
Commanding  
August 20 to  
November 4, 2001





**This chartlet is up to date with the June 2001  
Local Notice to Mariners.  
NOT FOR NAVIGATION.**

**Chartlet 4 of 4** Dangers to Navigation for Survey H10990  
Chart 13272, 47th Edition, March 10th, 2001 Scale 1:10,000, Boston Inner Harbor.  
**DTON 5**



**NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE**

Project: CPR-A397-WH  
Survey: H10990  
State: Massachusetts  
Locality: Massachusetts Bay  
Sub-locality: Boston Inner Harbor  
Survey Scale: 1:10,000

Sounding Units: Feet  
Sounding Datum: MLLW/  
Horizontal Datum: NAD 83  
Projection: UTM 19  
Central Meridian: 069° 00' 00"  
Scale Factor: 0.9996

**NOAA Ship WHITING**  
**CDR Steven R. Barnum**  
**Commanding**  
August 20 to  
November 4, 2001



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

# TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: May 17, 2002

HYDROGRAPHIC BRANCH: Atlantic  
HYDROGRAPHIC PROJECT: OPR A397 WH-2001  
HYDROGRAPHIC SHEET: H10990

LOCALITY: Boston Inner Harbor, MA  
TIME PERIOD: August 20-November 4, 2001

TIDE STATION USED: 844-3970 Boston, MA  
Lat. 42° 21.3'N Lon. 71° 03.1'W  
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 3.015 meters

## REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: BOS3, BOS4, BOS5, BOS6

Refer to attachments for zoning information.

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

*Thomas M. Mero 5/20/02*  
-----  
CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION



Printed on Recycled Paper



**ATLANTIC HYDROGRAPHIC BRANCH  
EVALUATION REPORT FOR H10990 (2001)**

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 7.1  
I/RAS B, version 5.01  
MapInfo, version 6.5  
CARIS HIPS/SIPS 2000  
PYDRO, version 2.9.1  
BP-Processor 1.1.0

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

**Junctions**

H10991 (2000) to the southeast

A standard junction could not be effected between the present survey and H10991 (2000). Any adjustments to the depth curves in the junctional areas will have to be made on the chart during compilation of this survey at MCD.

There are no junctional surveys to the north, northeast, southwest or to the west. Present survey depths are in harmony with the charted hydrography to the north, northeast, southwest and to the west.

**C. HORIZONTAL CONTROL**

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). Office processing of this survey is based on these values.

D. COMPARISON WITH CHARTS 13270 (59<sup>th</sup> Edition, JUL. 14/01)  
13272 (47<sup>th</sup> Edition, MAR. 10/01)

Hydrography

The charted hydrography originates with the prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section D. of the Descriptive Report. Throughout the survey area present survey depths are 2 to 4 feet deeper than charted depths. The present survey is adequate to supersede the charted depths. Attention is directed to the following:

1) An uncharted dangerous submerged obstruction with a depth of 9ft was located by the present survey in Latitude 42°20'58.41"N, Longitude 70°58'45.87"W. It is recommended that a dangerous submerged obstruction with a depth of 9ft, (9Obstn) be charted in the present survey location.

2) A charted pile in the vicinity of Latitude 42°20'32.7"N, Longitude 71°02'07.4"W, was disproved by 200% side scan sonar. It is recommended that the charted pile be deleted and present survey depths charted.

3) A charted notation 27FT, in the vicinity of Latitude 42°22'24.3"N, Longitude 71°02'59.4"W, was investigated and verified by 200% multibeam. It is recommended that the charted notation 27FT be deleted and the area superseded by present survey depths.

4) A charted dangerous submerged obstruction in the vicinity of Latitude 42°22'45.8"N, Longitude 70°59'36.9"W, was disproved by 200% side scan sonar. It is recommended that the dangerous submerged obstruction be deleted from the chart.

5) A charted dangerous submerged obstruction in the vicinity of Latitude 42°20'49.0"N, Longitude 70°57'47.8"W, was disproved by 200% side scan sonar. It is recommended that the dangerous submerged obstruction be deleted from the chart.

6) A charted notation 26ft rep, in the vicinity of Latitude 42°22'09.0"N, Longitude 71°03'09.5"W, was investigated and disproved by 100% multibeam. It is recommended that the charted notation 26ft rep be deleted and the area superseded by present survey depths.



7) A charted 26 FT, notation in the vicinity of Latitude 42°22'08.9"N, Longitude 71°03'05.7"W, was disproved by present survey multibeam investigation. Present survey depth in the area are 22 to 26 feet. It is recommended that the 26 FT, notation be deleted and the area updated with present survey depths.

8) A charted pier in ruins, in the vicinity of Latitude 42°22'09.5"N, Longitude 71°03'10.0"W, was neither verified nor disproved by the present survey. It is recommended that the charted pier in ruins be retained as charted.

9) The following uncharted buoys, (priv maintained), were located by present survey:

<u>Features</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
mooring buoy	42°21'04.41"	71°01'09.44"
mooring buoy	42°21'41.99"	71°01'47.33"
mooring buoy	42°21'38.31"	71°01'52.29"
mooring buoy	42°21'40.50"	71°01'47.69"
mooring buoy	42°21'33.20"	71°02'52.64"
orange can	42°21'29.01"	71°02'56.75"

Defer to MCD Update Service Branch for charting recommendations for Aids to Navigation.

10) Automated Wreck and Obstruction Information Systems (AWOIS) Item #11053, a dangerous sunken wreck, PA, in the vicinity of Latitude 42°21'56"N, Longitude 70°58'30"W, is charted on NOS chart 13270 but not on NOS chart 13272. This item originates with Local Notice to Mariners 13 of 2001 (LNM 13/01). The wreck was neither verified nor disproved by the present survey. It is recommended that no changes be made on NOS chart 13270 and that the wreck be added to NOS chart 13272.

11) A charted rock with a depth of 39ft, in the vicinity of Latitude 42°20'05.1"N, Longitude 71°00'06.6"W, was disproved by the present survey. Present survey depth in the area were 38 feet. It is recommended that the charted rock with a depth of 39ft, (39Rk), be deleted and the area superseded by present survey depths.

12) A charted rock awash in the vicinity of Latitude 42°20'22.8"N, Longitude 70°59'44.4"W, was verified. The present survey located the rock awash (cov 1 ft at MLLW) in Latitude 42°20'23.4"N, Longitude 70°59'44.7"W. It is recommended that the



charted rock awash be deleted and a rock awash, (cov 1 ft at MLLW), be charted in the present survey location.

13) The following charted features or depths originating with miscellaneous sources were neither verified nor disproved by the present survey:

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
Shoaling rep 1998	42°21'49.6"	70°58'39.6"
Piling, PA	42°21'24.4"	70°58'21.2"
Obstn	42°22'08.2"	70°59'53.2"
rky	42°20'21.2"	70°59'53.9"
rky	42°20'56.4"	71°01'37.5"
3	42°21'48.1"	70°59'08.3"
8	42°21'51.5"	70°59'15.2"
28	42°20'30.8"	71°01'34.8"
Sign	42°20'54.4"	70°57'40.9"
Subm piles	42°21'57.1"	70°59'16.6"
1	42°21'49.4"	70°59'28.09"
24	42°21'02.1"	71°01'58.8"
16	42°21'29.3"	71°02'54.43"
notation 27FT	42°22'20.0"	71°03'07.2"
17	42°21'56.3"	71°02'32.97"
½	42°21'56.7"	70°59'44.37"
½	42°21'58.1"	70°59'46.01"
½	42°22'00.9"	70°59'48.71"
5	42°23'00.8"	71°00'26.9"
10	42°22'58.3"	71°00'20.3"
3	42°22'56.3"	70°59'39.5"
Rock awash	42°21'47.7"	71°02'08.6"

No changes in charting are recommended.

14) A charted pier ruins in the vicinity of Latitude 42°22'28.69"N, Longitude 71°02'33.87"W, was determined to be longer during present survey operations. Three (3) charted piles, in the vicinity of Latitude 42°22'29.51"N, Longitude 71°02'36.15"W, were not seen during survey operations. It is recommended that the charted three (3) piles be deleted and pier ruins be revised as shown on present survey.

15) A charted pier in the vicinity of Latitude 42°21'46.1"N, Longitude 71°02'14.6"W, was determined by the field unit to be shorter than the charted length. Due to the currents in the area around the pier the field unit was not able to get

right next to the pier. MCD Source Data Group may have the blueprints for this pier. It is recommended that this pier revision be deferred to MCD Source Data Group for review and charting recommendation.

16) An uncharted dangerous sunken wreck with a depth of 12ft in Latitude 42°19'50.10"N, Longitude 71°00'09.50"W, was located by the present survey. It is recommended that a dangerous sunken wreck with a depth of 12ft, (12Wk), be charted in present survey location.

17) A charted Obstn (8ft rep), in the vicinity of Latitude 42°21'40.0"N, Longitude 71°02'51.2"W, was determined during office processing to be disproved by 200% side scan sonar investigation. It is recommended that the charted Obstn (8ft rep), be deleted and the area superseded by present survey depths.

18) The following charted shoal depths were disproved by side scan or multibeam investigations during survey operations for H10991 (2000) and present survey:

<u>Charted Depths (ft)</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Surrounding Depths (ft)</u>
4	42°20'17.88"	70°59'19.50"	10-11
10	42°20'42.96"	70°58'01.61"	17-18
9	42°21'26.34"	70°58'44.23"	14-24
13	42°22'46.29"	70°59'58.39"	20-24
7	42°22'37.57"	70°59'48.13"	19-30
15	42°22'37.23"	70°59'44.84"	24-27
2-6	42°20'37.18"	71°00'03.41"	26-29
18	42°22'56.31"	71°02'49.72"	33-37
17	42°22'06.43"	71°03'04.33"	24-31
18	42°22'08.23"	71°03'02.98"	29-31
1	42°21'58.92"	70°59'32.06"	9-19
1	42°21'57.14"	70°59'30.80"	9-21
2	42°21'55.44"	70°59'27.62"	10-21
8	42°21'36.27"	71°01'51.55"	18-30

It is recommended that the above charted depths be superseded by present survey depths.

19) A charted light, (Light List #10911), in the vicinity of Latitude 42°20'31.9"N, Longitude 71°02'02.1"W, was located in Latitude 42°20'30.2"N, Longitude 71°02'05.1"W by the present

survey. It is recommend that the light (*Light List #10911*) be deferred to MCD Source Data Group for review and charting.

20) Two charted low water areas, in the vicinity of Latitude 42°20'37.5"N, Longitude 70°59'48.0"W, and Latitude 42°20'39.0"N, Longitude 70°59'56.5"W were disproved by 200% side scan sonar investigations. It is recommended that the areas be superseded by present survey depths.

21) A charted rock with a depth of 28ft, in the vicinity of Latitude 42°21'04.2"N, Longitude 71°01'17.5"W, was disproved by the present survey. Present survey depths in the area were 26 to 28 feet. It is recommended that the charted rock with a depth of 28ft, (*28Rk*), be deleted and the area superseded by present survey depths.

22) Uncharted ruins in the vicinity of Latitude 42°21'53.82"N, Longitude 71°02'54.76"W, was located by the present survey during side scan sonar investigation. It is recommended that the area be charted as Ruins as shown on present survey.

23) A charted pier in the vicinity of Latitude 42°23'08.28"N, Longitude 71°02'47.97"W, was determined to be pier ruins during present survey operations. It is recommended that the charted pier be deleted and pier ruins charted as shown on present survey.

24) A charted pipe, in the vicinity of Latitude 42°22'45.8"N, Longitude 71°00'33.6"W, was not seen during present survey operations. It is recommended that the charted pipe be revised to dangerous submerged obstruction, (pipe), in charted location.

25) A charted subm pile in the vicinity of Latitude 42°21'26.16"N, Longitude 71°01'39.31"W, was not addressed by the field unit. During office processing a review of the side scan and multibeam data showed no item in the area. Depths in the area are 12 to 17 feet. It is recommended that the charted subm pile be deleted and present survey soundings charted.

26) A charted light, (FY "NW" PA, Priv) in the vicinity of Latitude 42°21'38"N, Longitude 71°02'04"W, was disproved by the present survey. It is recommended that the light (FY "NW" PA, Priv) be deferred to MCD Source Data Group for review and charting recommendation.

27) A charted rock with a depth of 37ft, in the vicinity of Latitude 42°20'05.3"N, Longitude 70°59'54.0"W, was verified by the present survey. The rock was located in Latitude 42°20'05.45"N, Longitude 70°59'53.90"W. It is recommended that the charted rock with a depth of 37ft, (37Rk), be deleted and a rock with a depth of 37ft, (37Rk), and a danger curve be charted in present survey location.

28) A charted notation rky, in the vicinity of Latitude 42°21'26.6"N, Longitude 71°02'04.6"W, was disproved by side scan sonar investigations. Present survey depth in the area are 31 to 33 feet. It is recommended that the charted notation rky be deleted and the area superseded by present survey depths.

29) AWOIS Item #10211, a charted dangerous sunken wreck, PA, in Latitude 42°22'41.00"N, Longitude 71°02'52.00"W, was disproved by side scan and multibeam investigations. It is recommended that the dangerous sunken wreck, PA be deleted and present survey soundings charted.

30) AWOIS Item #10213, a charted dangerous sunken wreck, PA, in Latitude 42°22'53.84"N, Longitude 71°02'54.18"W, was located by the present survey by multibeam investigation. A wreck with a least depth of 17ft was located in Latitude 42°22'54.17"N, Longitude 71°02'55.00"W. It is recommended that the dangerous sunken wreck, PA be deleted and a wreck with a least depth of 17ft, (17Wk), be charted in above location.

31) The following uncharted features were located during present survey multibeam operations:

Feature	Latitude (N)	Longitude (W)
25 Obstn	42°22'38.81"	71°02'51.10"
28 Obstn	42°22'43.12"	71°02'51.58"
23 Obstn	42°22'45.53"	71°02'52.68"
10 Obstn	42°22'54.30	71°02'50.85"
13 Obstn	42°22'06.85"	71°02'40.28"

It is recommended that the above features be charted in present survey locations.

32) Uncharted pier ruins in the vicinity of Latitude 42°22'20.03"N, Longitude 71°03'10.04"W, were located by the present survey during side scan sonar investigation. It is recommended that the area be charted as Ruins as shown on present survey.

33) AWOIS Item #10199, a charted rock with a depth of 29 feet, in the vicinity of 42°20'20.9"N, Longitude 71°00'11.6"W, is considered disproved by the present survey. An obstruction with a depth of 34 feet, in Latitude 42°20'20.97"N, Longitude 71°00'11.72"W, was located. An e-mail from Mr. Donald Edwards, US Army Corps of Engineers (USACE), to Commander Andrew Beaver, Northeast Navigation Manager, recommends that the obstruction not be charted. A copy of the e-mail is attached to this report. The USACE will be conducting dredging operations in the area in the summer of 2004. USACE surveys show a depth of 34 feet in the area discussed. It is recommended that the charted rock with a depth of 29ft, (29Rk), be deleted and the area superseded by present survey depths.

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area.

#### **COMPARISON WITH PRIOR SURVEYS**

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.

#### **Controlling Depths**

The following present survey depths show conflict within charted Project Depth areas:

<u>Charted Projected Depths (ft)</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Present Depths (ft)</u>
35	42°20'07.2"	70°59'41.4"	33
40	42°20'02.1"	70°59'58.9"	36
35	42°20'15.6"	71°00'03.0"	34
40	42°20'15.7"	71°00'19.3"	39
35	42°20'22.6"	71°00'13.9"	33
35	42°20'31.9"	71°00'29.0"	33
40	42°20'40.5"	71°00'55.3"	39
35	42°20'52.0"	71°01'00.8"	31
40	42°20'52.7"	71°01'13.1"	37

35	42°21'03.0"	71°01'21.5"	33
40	42°20'59.8"	71°01'38.7"	36
35	42°21'20.2"	71°01'58.5"	33
40	42°21'27.8"	71°02'18.1"	36
35	42°21'33.8"	71°02'40.5"	32
40	42°21'45.6"	71°02'32.3"	39
40	42°21'10.5"	71°00'45.0"	37
35	42°22'16.4"	71°02'55.6"	34
40	42°22'49.6"	71°02'49.4"	36

It is recommended that the present survey depths be charted.

Except as noted above, 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. The following NOS Charts were used for compilation of the present survey:

13270 (59<sup>th</sup> Edition, Jul. 14/01)  
13272 (47<sup>th</sup> Edition, Mar. 10/01)

### **ADEQUACY OF SURVEY**

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



H10990

  
Sgt Robert Snow

Cartographic Technician  
Verification of Field Data  
Evaluation and Analysis

## REPORT OF DANGERS TO NAVIGATION

Hydrographic Survey Registry Number: H10990

Survey Title: State: Massachusetts  
Locality: Massachusetts Bay  
Sub-Locality: Boston Inner Harbor

Project Number: OPR-A397-WH

Field Unit: NOAA Ship WHITING S-329

Survey Date(s): August 20, 2001 - November 4, 2001

Features are reduced to Mean Lower Low Water using Verified Water Levels and are positioned on NAD 83.

Charts affected: ~~13270, 58<sup>th</sup> edition, October 9, 2001, scale 1:25,000, NAD 83~~  
13272, 47<sup>th</sup> edition, March 10, 2001, 1:10,000, NAD 83

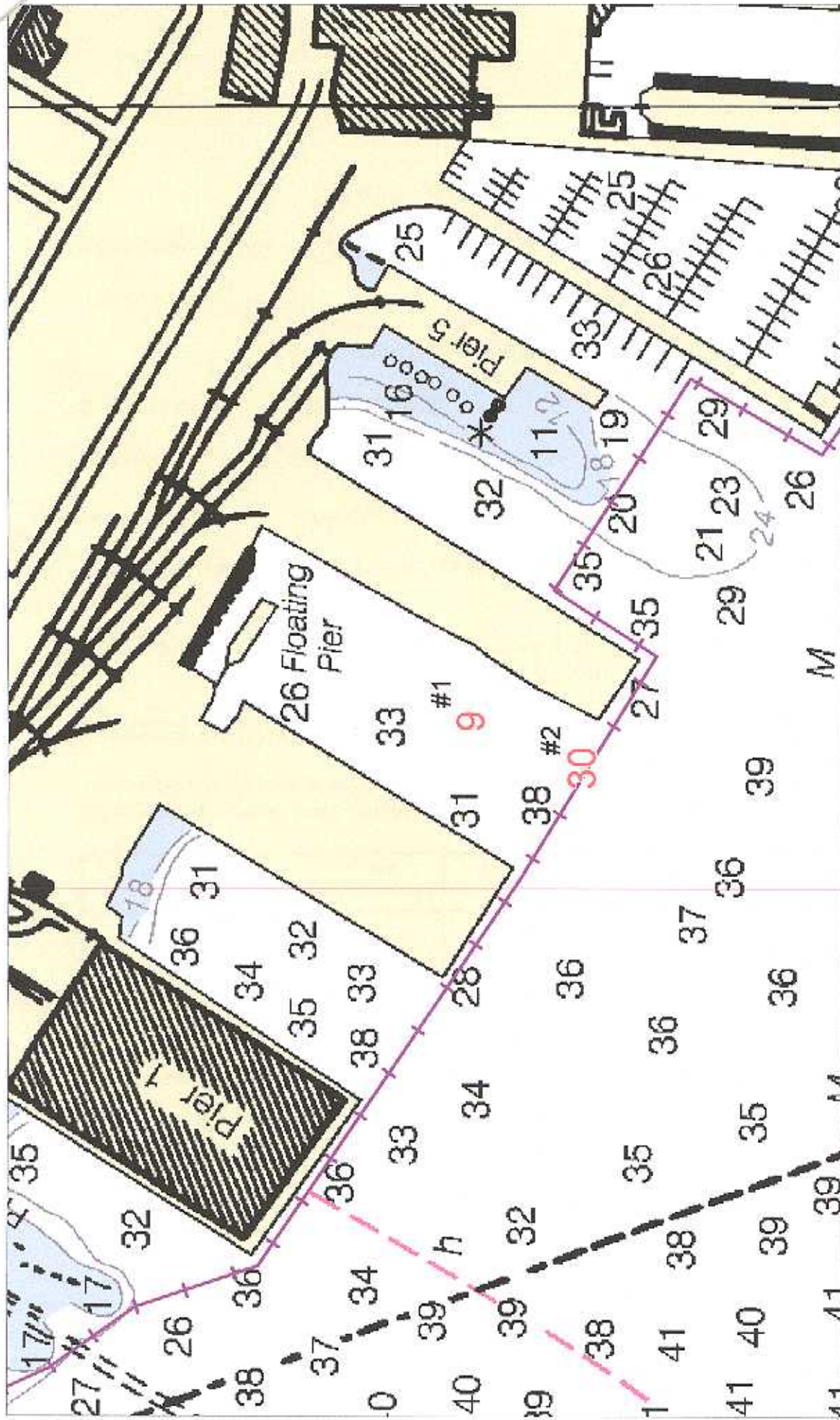
### DANGERS TO NAVIGATION

There were two dangers to navigation (see chartlet) discovered during mainscheme hydrography on Sheet H10990, Boston Inner Harbor.

ITEM #	FEATURE	DEPTH (feet)	LATITUDE (N)	LONGITUDE (W)
1	Wreck	9	42° 21' 47.59" <i>82</i>	071° 02' 16.58" * <i>37</i> <i>9Wk</i>
2	Obstruction	30	42° 21' 45.75" <i>80</i>	071° 0' 18.17" * <i>02'18.37"</i> <i>30Obstn</i>

Questions concerning this report should be directed to the Chief, Atlantic Hydrographic Branch, at (757) 441-6746.


*\* Chart above items*



This chartlet is up to date with the March 2002  
Local Notice to Mariners information.  
**NOT FOR NAVIGATION.**

**Chartlet 1 of 1**  
**DTON 1 & 2**

Pier #4, East Boston  
Dangers to Navigation for Survey H10990  
Chart 13272, 47th Edition, March 10th, 2001, Scale 1:10,000, Boston Inner Harbor.

	<p><b>NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE</b></p>	<p>Project: OPR-A397-WH Survey: H10990 State: Massachusetts Locality: Massachusetts Bay Sub-locality: Boston Inner Harbor Survey Scale: 1:10,000</p>	<p>Sounding Units: Feet Sounding Datum: MLLW Horizontal Datum: NAD 83 Projection: UTM 19 Central Meridian: 069° 00 00 Scale Factor: 0.9996</p>	<p><b>NOAA Ship WHITING</b> <b>CDR Steven R. Barnum</b> <b>Commanding</b> August 20 to November 4, 2001</p>
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**Subject:** [Fwd: Boston Harbor]

**Date:** Fri, 09 Apr 2004 11:24:03 -0400

**From:** "Andrew L. Beaver" <Andrew.L.Beaver@noaa.gov>

**Organization:** NOAA/NOS/OCS

**To:** Norris A Wike <Norris.A.Wike@noaa.gov>

Good morning Norris.

Here is the response from USACE NE District, they would prefer a sounding without a danger curve. They were a little upset about us surveying in their turf as well, but we already know about that and I've passed on to the TJ not to do this anymore!

Have a wonderful weekend!

Andy

----- Original Message -----

**Subject:** Boston Harbor

**Date:** Fri, 9 Apr 2004 10:16:25 -0500

**From:** "O'Donnell, Edward G NAE" <Edward.G.O'Donnell@nae02.usace.army.mil>


**To:** "'Andrew.L.Beaver@noaa.gov'" <Andrew.L.Beaver@noaa.gov>

Andy:

In regard to your question regarding Boston. I've attached a copy of our survey in the area of the 29 that you folks plotted. The shoalest we have is a 34.1'. There are 33 foot soundings further up in the channel. For one, not sure why you guys are reporting soundings in our channel, that aside, I don't see any need to highlight the area in any way with a circle. The situation may be moot since we'll be dredging the area this summer and soundings will change.

EOD

<<SFX177E.pdf>>

 SFX177E.pdf	<b>Name:</b> SFX177E.pdf <b>Type:</b> Acrobat (application/pdf) <b>Encoding:</b> base64 <b>Download Status:</b> Not downloaded with message
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C A S T L E I S L A N D

B O S T O N I N N E R H A R B O R



AT THIS CIRCLE REVEALED NO OBSTRUCTION OF EL. -29.0 ON  
AIR PHOTOGRAPHIC INFORMATION ACCORDING TO THE  
DETAILED SURVEY OF 1970 REVEALED  
NATURE OF ROCK AND EL. -29.00.



U.S. ARMY ENGINEER DISTRICT  
NEW ENGLAND DISTRICT  
CORPS OF ENGINEERS  
CONCORD, MASSACHUSETTS

April 6, 2004

BOSTON HARBOR  
MAINTENANCE DREDGING  
BOSTON, MASSACHUSETTS

CHANNEL AREA

APPROVAL SHEET

H10990

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproof 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.



Norris Wike  
Cartographer,  
Atlantic Hydrographic Branch

Date: 3/5/04

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:



Emily B. Christman  
Commander, NOAA  
Chief, Atlantic Hydrographic Branch

Date: 3/12/2004

*AWOIS/supv 5/26/04, SS*



FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 1410990

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED