

NOAA Hydrographic Survey Letter Instructions

OPR-A397-TJ
Approaches to Boston, MA
CY 2003 Operations

Commanding Officer
NOAA Ship Thomas Jefferson

The following sections address project specific information not contained in the issued "DRAFT" NOAA Standing Letter Instructions for Hydrographic Surveys.

1.0. GENERAL

1.1. Safety: Safety of personnel and operations shall be emphasized over data quality. The hydrographer shall never subject boats or personnel to undue risks and avoidable hazardous situations.

1.2. Introduction: The purpose of this project is to provide contemporary hydrography with full-bottom multibeam coverage in the approaches to Boston Harbor. This project responds to requests from the Massachusetts Port Authority (MASSPORT), Boston Pilots, the First U.S. Coast Guard District, Massachusetts Coastal Zone Management (Boston, MA), and the U.S. Geological Survey (Woods Hole, MA).

The data from this project will be used in a variety of ways. First it will promote safer and more efficient navigation in the approaches to Boston Harbor. This data is even more imperative since Boston is the only port on the east coast that can receive

Liquefied Natural Gas (LNG). Second, the proliferation of high speed ferries servicing the area (especially Logan Airport)

requires accurate water depths and the locations of any obstructions. Finally, modern hydrography acquired in the areas immediately surrounding the primary runways of Logan International Airport is critical to the deployment of emergency vessels in the event of an aircraft disaster.

In addition, the Boston Pilots Association has specifically requested that two areas in the Weymouth Fore River be investigated. These two areas are shown on the enlargements of the project limits sketch and will be surveyed as field examinations.

This project will also contribute valuable bathymetric data to the Stellwagen Bank Marine Sanctuary program in conjunction with the U.S. Geological Survey (USGS), Woods Hole Oceanographic Institution (WHOI), and the Canadian Hydrographic Service (CHS). Multibeam tracklines will be run in order to validate Outside Source Data (OSD) from the USGS and the University of New Hampshire (UNH).

1.3. Location: This survey is located in Massachusetts Bay, Massachusetts. The limits indicated on National Ocean Service (NOS) chart 13270 are for guidance only. Actual survey limits will be governed by junctional requirements with WHITING and USGS survey data.

1.4. Time Frame: This multi-year project was begun in 2000 by the NOAA Ship WHITING and will be completed by the NOAA Ship THOMAS JEFFERSON. Work by THOMAS JEFFERSON will begin during early August, 2003 and continue through early September, 2003.

1.5. Priority: First priority is sheet "F" followed by sheet "D". The order of progression on the remaining sheets is at the Commanding Officer's discretion.

1.6. Security Classification: This project is unclassified. Refer to Standing Instructions.

1.7. Previous Instructions: Not applicable.

1.8. Charts Affected: Survey data acquired for this project will be applied to the following NOS charts:

<u>Chart</u>	<u>Sheet Letters</u>
13003	All

13006	All
13009	All
13200	D, F, G, H, I, J, K, L, M, N, O, P
13260	All
13267	D, F, G, H, I, J, K, L, M, N, O, P
13270	F, D
13274	F, N, O, Q
13275	F, D, N
13278	O, P, Q, R, S, T, U, V, W
13279	O, Q
13281	O

1.9. Scope: A basic hydrographic survey (under the navigable area concept) with 100% full bottom multibeam coverage, except as modified by these instructions, is required for this project.

The inshore limit for hydrography, as safety conditions permit, will be the four-meter curve, except in areas where the Commanding Officer determines that further inshore coverage is significant to navigation or in accordance with the Field Procedures Manual (FPM). Offshore limits of hydrography will be defined by the sheet limits provided on the project CD as MapInfo tables.

However desirable it may be to extend a hydrographic survey to the inshore limits stated, the hydrographer shall never subject the boat or personnel to undue risks and avoidable hazardous situations.

For sheets "D" and "F" side scan sonar coverage is required only in the following circumstances:

- o Item investigations, either assigned (AWOIS) or discovered in the field.
- o To resolve any ambiguities in multibeam coverage.
- o Item disprovals.
- o Investigation of manmade features detected by any means
- o At discretion of the Commanding Officer for particular areas of low underkeel clearance.

Multibeam coverage requirements for the remaining sheets (W registry numbers) are left to the Commanding Officer's discretion.

Sheets "F" and "D" cover approximately 47 square nautical miles (SNM). The remaining project area (validation of USGS and UNH

data) covers approximately 1280 SNM.

This project covers a total of 1327 square nautical miles. At least 2 surveys are expected to be completed in 2003. There are 239 Automated Wreck and Obstruction Information System (AWOIS) items assigned to the entire project. 4 items are assigned as full investigations and the others are information only.

Sheet Summary*

<u>Sheet**</u>	<u>Scale</u>	<u>SNM</u>
D	1:10,000	27
F	1:10,000	27
G	1:20,000	94
H	1:20,000	101
I	1:20,000	77
J	1:20,000	100
K	1:20,000	82
L	1:20,000	100
M	1:20,000	82
N	1:20,000	66
O	1:20,000	84
P	1:20,000	112
Q	1:20,000	98
R	1:20,000	96
S	1:10,000	17
T	1:10,000	29
U	1:10,000	28
V	1:10,000	25
W	1:10,000	9

* Summary areas are estimates of individual sheet totals and may not account for overlap between sheets.

** Sheets "G" through "W" will validate Outside Source Data (OCD).

2.0. Quality: It is imperative to the overall charting effort of the Coast Survey (CS) that, within reasonable limits, data quality be stressed in lieu of data quantity.

2.1. PARTICIPATION: The THOMAS JEFFERSON. is the only vessel assigned to this project this field season.

3.0. HORIZONTAL POSITION CONTROL: See sections 2 and 3 in the NOS Hydrographic Surveys Specifications and Deliverables Manual (HSSDM) June 9, 2000.

4.0. TOPOGRAPHY

4.1. Shoreline and Charted Detail

4.1.1. Source: There are no photogrammetric source data available for this project. Shoreline for the field sheets shall be from the largest scale NOS charts in the area and shown in brown, This shoreline is for orientation purposes only, and shall be so annotated.

4.1.2. Verification

4.1.2.1. Establish, verify, or disprove the location of all features within the project limits (e.g., wrecks, ruins, piles, shoals, and rocks, etc.) and include a positive disposition in the hydrographic record. Compare the charted shoreline with existing shoreline. Note gross discrepancies in the Descriptive Report (DR) with recommendations for new shoreline compilation. Show minor discrepancies on the final field sheet as revisions in accordance with section 6.1. of the Field Procedures Manual (FPM).

For sheets "G" through "W", charted features significant to safe navigation shall be addressed and other features may be addressed at the discretion of the command.

5.0. TIDES

5.1. Purpose: All tide requirements in these instructions are in direct support of hydrographic survey operations.

5.2 through 5.6. Refer to Standing Instructions.

5.7. Vertical Datums:

Refer to Standing Instructions.

5.7.1. The operating National Water Level Observation Network (NWLON) stations at Boston, MA (844-3970) and Portland, ME (841-8150) will serve as datum control for the survey area as well as control for datum determination at the subordinate stations. Therefore, it is critical that these stations remain in operation during all periods of hydrography.

5.7.1.1. Water level data acquisition monitoring

Refer to Standing Instructions.

5.7.1.2. Water level station operation and maintenance

Refer to Standing Instructions.

5.7.1.3. No leveling is required at Boston, MA (844-3970) and Portland, ME (841-8150) by NOAA Ship THOMAS JEFFERSON personnel.

5.8. Water Level Station Requirements: The operating water

level stations at Boston, MA (844-3970) and Portland, ME (841-8150) will also provide water level reducers for this project, reiterating the importance of their operation during all periods of hydrography. See Sections 5.7.1.1. and 5.7.1.2. concerning responsibilities.

5.8.1. Subordinate Water Level Stations:

Refer to Standing Instructions.

5.8.1.1. 30-Day Station(s): Install the following water level station. Operate the station for a minimum of 30 days, from 4 hours before to 4 hours after the period of hydrography and/or shoreline verification for the sheet(s) or area(s) specified in Section 5.8.4. of these instructions. However, if the period of hydrography is less than 30 days, this 30-day requirement is waived beyond the 4 hours after the period of hydrography.

<u>Station Number</u>	<u>Station Name</u>	<u>Latitude(N)</u>	<u>Longitude(W)</u>
844-4162 *	Boston Light, MA	42° 19.7'	70° 53.5'
842-3898 *	Fort Point, NH	43° 04.3'	70° 42.7'

* Water level stations are currently installed and will be operating during time of hydrography. Assistance obtaining closing levels will be required of NOAA Ship THOMAS JEFFERSON.

Section 5.8.1.2. is not applicable for this project.

5.8.2. GOES Satellite Enabled Subordinate Stations

Refer to Standing Instructions.

The following preliminary satellite antenna pointing angles are provided for the station in Sections 5.8.1.1. to facilitate GOES satellite transmission. Complete GOES information will be provided after the station location is finalized and reported to CO-OPS/RDD. If a suitable site for transmitting via satellite cannot be found within the required area, then a station should be established within the area and the data downloaded onto diskette and forwarded to CO-OPS/RDD. As a backup for all stations, data must be forwarded to CO-OPS/RDD on diskette.

<u>STATION</u>	<u>GOES EAST-EAST</u>	<u>GOES EAST-CENTRAL</u>
844-4162	ELEV. 41.0°	37.4°
	AZIMUTH(T) 186.1°	207.2°
842-3898	ELEV. 40.1°	36.6°
	AZIMUTH(T) 186.3°	207.1°

5.8.3. Recovering Historical bench marks:

Refer to Standing Instructions.

5.8.3.1. Obtain GPS Latitude and Longitude positioning for all historical bench marks recovered/installed at each required subordinate water level station. Refer to the document **Basic GPS Observation Guidelines for NOAA in-house Hydrographic Surveying** from CO-OPS for details. If GPS equipment is not available for this survey, GPS requirements from this section are waived.

5.8.4. Operate the water level station listed in Sections 5.8.1.1. of these instructions for the following hydrographic area(s) or zone(s).

<u>Station Number</u>	<u>Hydrographic Area(s) or Zone(s)</u>
844-4162	Zones: NA171, NA173, NA174, NA175, NA176, NA177, NA178, NA183, NA184, NA185, NA186, NA187, NA188, NA189, NA190, NA199, NA200, NA207, NA208
844-3898	Zones: NA155, NA156, NA169

5.9. Zoning: For hydrography in the area of Boston, Boston, MA (844-3970), and Portland, ME (841-8150) are the reference stations for predicted tides. Predictions may be retrieved in one month increments over the Internet from the CO-OPS Home Page at <http://www.co-ops.nos.noaa.gov/> and then clicking on "Predictions." Predictions are six-minute time series data relative to MLLW in metric units on Greenwich Mean Time. Apply the following time and height correctors to the predicted tides at Boston and Portland during the acquisition and preliminary processing phases of this project for correcting all sounding data.

<u>Zone Name</u>	<u>Time Corrector (mins)</u>	<u>Range Ratio</u>	<u>Predicted Reference</u>
NA155	-18	x0.93	841-8150
NA156	-6	x0.93	841-8150
NA169	0	x0.95	841-8150
NA171	-6	x0.95	844-3970
NA173	0	x0.96	844-3970
NA174	-6	x0.94	844-3970
NA175	-6	x0.92	844-3970
NA176	-12	x0.90	844-3970
NA177	-12	x0.87	844-3970
NA178	-30	x0.87	844-3970
NA183	-30	x0.85	844-3970
NA184	-12	x0.85	844-3970
NA185	-6	x0.85	844-3970
NA186	-6	x0.87	844-3970
NA187	-6	x0.90	844-3970
NA188	-6	x0.92	844-3970
NA189	-6	x0.94	844-3970
NA190	0	x0.96	844-3970

NA199	-6	x0.83	844-3970
NA200	-12	x0.83	844-3970
NA207	-12	x0.81	844-3970
NA208	-6	x0.81	844-3970

NOTE: The tide corrector values referenced to Boston, MA (844-3970), and Portland, ME (841-8150) are provided in the zoning file "A397TJ2003CORP" for this project and are in the fourth set of correctors designated as TS4. Longitude and latitude coordinates are in decimal degrees. Negative (-) longitude is a MapInfo representation of west longitude.

NOTE: For time corrections, a negative (-) time correction indicates that the time of tide in that zone is earlier than (before) the predicted tides at the reference station, whereas, a positive (+) time correction indicates that the time of tide in that zone is later than (after) the predicted tides at the reference station. For height corrections, the water level heights relative to MLLW at the reference station are multiplied by the range ratio to estimate the water level heights relative to MLLW in the applicable zone.

5.9.1. A zoning diagram, created in MapInfo, is provided in both digital and hard copy format to assist with the zoning provided in Section 5.9.

5.10. Tidal Records:

Refer to Standing Instructions on what data records, reports and requests to submit to CO-OPS and the address where these documents should be submitted to.

6.0. HYDROGRAPHY

6.1. Classification: Hydrography shall be basic under the navigable area concept and in accordance with the NOS Hydrographic Surveys Specifications and Deliverables Manual (**HSSDM**), dated June 9, 2000, the Side Scan Sonar Manual and the FPM, except as modified by these instructions.

6.3. Survey Scale: The scale of the surveys is 1:10,000 and 1:20,000.

6.3. Sheet Layout: A sheet layout and project limit sketch created in MapInfo, dated **July 7, 2003**, has been approved by N/CS31. Submit any request for revision to the layout through N/CS33 for approval by N/CS31. Six (6) survey sheets exist for the entire project with a copy to N/CS33.

6.3.1. Assigned Survey Registry Numbers and Sheet Titles: N/CS31 has assigned registry numbers to this project through N/CS32. Request FE registry numbers from N/CS31 through N/CS32. The following information indicates a sheet letter, assigned

registry numbers and specifies localities and scale.

The sheets for this project have a general locality of **Massachusetts Bay, Massachusetts**

Sheet Letter: **A**
Hydrographic Survey Registry Number: **H10990**
Sub-locality: **Boston Inner Harbor**
Scale: **1:10,000**

Sheet Letter: **B**
Hydrographic Survey Registry Number: **H10991**
Sublocality: **Boston North Channel to Weymouth Fore River**
Scale: **1:10,000**

Sheet Letter: **C**
Hydrographic Survey Registry Number: **H10992**
Sublocality: **The Graves to Cohasset Harbor**
Scale: **1:10,000**

Sheet Letter: **D**
Hydrographic Survey Registry Number: **H10993**
Sublocality: **4.5 Miles East of Pt. Allerton**
Scale: **1:10,000**

Sheet Letter: **E**
Hydrographic Survey Registry Number: **H10994**
Sublocality: **Broad Sound**
Scale: **1:10,000**

Sheet Letter: **F**
Hydrographic Survey Registry Number: **H10995**
Sublocality: **4 miles East of Nahant**
Scale: **1:10,000**

Sheet Letter: **G**
Hydrographic Survey Registry Number: **W00037**
Sublocality: **12 NM SE of Scituate Harbor**
Scale: **1:20,000**
Estimated SNM; **94**

Sheet Letter: **H**
Hydrographic Survey Registry Number: **W00038**
Sublocality: **6 NM North of Provincetown**
Scale: **1:20,000**
Estimated SNM: **101**

Sheet Letter: **I**
Hydrographic Survey Registry Number: **W00039**
Sublocality: **7 NM NE of Cohasset Harbor**
Scale: **1:20,000**
Estimated SNM: **77**

Sheet Letter: J
Hydrographic Survey Registry Number: W00040
Sublocality: 15 NM NE of Scituate Harbor
Scale: 1:20,000
Estimated SNM: 100

Sheet Letter: K
Hydrographic Survey Registry Number: W00041
Sublocality: 14 NM North of Provincetown
Scale: 1:20,000
Estimated SNM: 82

Sheet Letter: L
Hydrographic Survey Registry Number: W00042
Sublocality: 19 NM NE of Cohasset Harbor
Scale: 1:20,000
Estimated SNM: 100

Sheet Letter: M
Hydrographic Survey Registry Number: W00043
Sublocality: 22 NM North of Provincetown
Scale: 1:20,000
Estimated SNM: 82

Sheet Letter: N
Hydrographic Survey Registry Number: W00044
Sublocality: 6 NM East of Marblehead Harbor
Scale: 1:20,000
Estimated SNM: 66

Sheet Letter: O
Hydrographic Survey Registry Number: W00045
Sublocality: 7 NM East of Eastern Point
Scale: 1:20,000
Estimated SNM: 84

Sheet Letter: P
Hydrographic Survey Registry Number: W00046
Sublocality: 20 NM East of Eastern Point
Scale: 1:20,000
Estimated SNM: 112

Sheet Letter: Q
Hydrographic Survey Registry Number: W00047
Sublocality: 8 NM NE of Rockport Harbor
Scale: 1:20,000
Estimated SNM: 98

Sheet Letter: R
Hydrographic Survey Registry Number: W00048
Sublocality: 20 NM East of Rockport Harbor
Scale: 1:20,000
Estimated SNM: 96

Sheet Letter: S
 Hydrographic Survey Registry Number: W00049
 Sublocality: 12 NM NE of Halibut Point
 Scale: 1:10,000
 Estimated SNM: 17

Sheet Letter: T
 Hydrographic Survey Registry Number: W00050
 Sublocality: 15 NM NE of Halibut Point
 Scale: 1:10,000
 Estimated SNM: 29

Sheet Letter: U
 Hydrographic Survey Registry Number: W00051
 Sublocality: 18 NM NE of Halibut Point
 Scale: 1:10,000
 Estimated SNM: 28

Sheet Letter: V
 Hydrographic Survey Registry Number: W00052
 Sublocality: 22 NM NE of Halibut Point
 Scale: 1:10,000
 Estimated SNM: 25

Sheet Letter: W
 Hydrographic Survey Registry Number: W00053
 Sublocality: 24 NM NE of Halibut Point
 Scale: 1:10,000
 Estimated SNM: 9

6.4. **Sounding Lines:** Sounding line spacing and orientation on sheets "G" through "W" (OSD validation) is left to the Commanding Officer's discretion. Refer to Standing Instructions.

6.5 **Soundings:** Refer to Standing Instructions.

6.6 **Bottom Characteristics:** Refer to Standing Instructions.

6.7 **Plotting:** Refer to Standing Instructions.

6.8. **Junctions:** Junction with the following surveys in accordance with section 2.2 of the FPM. Within time and operational constraints, make a junction with the Canadian Hydrographic Service Ship FREDERICK G. CREED's data acquired on Stellwagen Bank Marine Sanctuary. It may be necessary to extend the eastern limits of sheets "D" and "F" to accomplish this junction. The data necessary to effect this junction will be provided by the U.S. Geological Survey (see section 8.4.2 of these Letter Instructions).

<u>Registry Number</u>	<u>Scale</u>	<u>Year Surveyed</u>
H10983A	1:10,000	2000

H10991	1:10,000	2000
H10992	1:10,000	2001

6.9. Prior Surveys: If deemed necessary by the Commanding Officer, compare data from this project with the following prior surveys during the course of data acquisition in accordance with Chapters 2 and 8 of the FPM and section 8.1.3.,D.2 of the NOS Hydrographic Surveys Specifications and Deliverables Manual (HSSDM) :

<u>Registry Number</u>	<u>Scale</u>	<u>Year Surveyed</u>
F00206	1:25,000	1966
H06564	1:20,000	1940
H07140	1:40,000	1947
H08938	1:40,000	1968
H08940	1:10,000	1967
H08941	1:10,000	1967
H09011	1:40,000	1968
H09013	1:40,000	1968
H09051	1:20,000	1970
H09063	1:20,000	1969
H09064	1:20,000	1969

6.10. Charts: Use the latest editions of the following charts for comparison during this project in accordance with section 8.1.3.(N) of the HSSDM dated June 9, 2000.

<u>Chart Number</u>	<u>Edition</u>	<u>Edition Date</u>	<u>Next Planned Edition</u>
13200	33 rd	January 19, 2002	April, 2004
13260	39 th	June 1, 2003	July, 2004
13267	30 th	December 1, 2001	January, 2004
13270	59 th	July 14, 2001	March, 2004
13275	27 th	July 24, 1999	October, 2003
13278	25 th	December 9, 2000	July, 2004
13279	30 th	March 1, 2003	May, 2004

6.11. Presurvey Review

6.11.1. The presurvey review has been conducted by N/CS3 and the results will be forwarded as an AWOIS database in MS Access on the project CD-ROM. In addition, the AWOIS items have been plotted in MapInfo. Conduct AWOIS investigations in accordance with the FPM and section 8.1.3.,D.1 of the NOS HSSDM, dated June 9, 2000.

Field units shall evaluate all "assigned" AWOIS items in relation to the list of spatially-correlating survey features using Pydro (as per AWOIS database "Search Radius" and (optional) "Technique Notes"). AWOIS items are to be evaluated against echosounder (VBES or SWMB) and (bathy-based) features inserted into Pydro (sounding flagged as "outstanding" in Caris, or DP acquired in Hypack). For a given recovered AWOIS item, assign the Pydro status level for the AWOIS item as "Secondary" to (one) "Primary" bathy-based survey feature. For all AWOIS items

recovered, edit the "Item Status", "History", "Horizontal Datum", "Position Source", and "Position Quality" using the AWOIS Editor in Pydro. ("Time", "Position" and "Depth" data are handled via linkage to the correlating "Primary" bathy-based survey feature.) The processing branch shall use Pydro to ensure the quality of the AWOIS edits and update the MS Access hydrographic project database using the function Data...Export...Update AWOIS Database. Processing branches shall submit updated AWOIS database files to N/CS31.

In the course of investigating the assigned items, establish early contact with the district offices of the U.S. Coast Guard and U.S. Army Corps of Engineers, as well as pilot associations and diving organizations, for additional information. Additional information, such as salvage documentation, from an authoritative source can form the basis for disposition of a presurvey review item without the need of a field investigation.

6.12. **Dangers to Navigation**: Refer to Standing Instructions.

6.13. **Data Submission**: Refer to Standing Instructions.

6.13.1. **Preliminary Data**: Refer to Standing Instructions.

7.0. **BOTTOM INVESTIGATIONS**: Refer to Standing Instructions.

8.0. **ANCILLARY TASKS**: Refer to Standing Instructions.

8.1. **Currents (Circulation Surveys)**: Refer to Standing Instructions.

8.2. **Magnetics**: Refer to Standing Instructions.

8.3. **Coast Pilot**: Refer to Standing Instructions.

8.4. **User Evaluation**

8.4.1. Refer to Standing Instructions.

8.4.2. A number of offices and persons are to be contacted at or near the beginning and ending of field operations to discuss survey objectives and accomplishments.

Massachusetts Lobstermen's Association

8 Otis Place
Scituate, MA 02066-1323

ATTN: Bill Adler, Executive Director
Telephone: 781-545-6984
FAX: 781-545-7837
Email: mla@lobstermem.com

U.S. Army Corps of Engineers

U.S. Army Engineers Division
New England, CENED
696 Virginia Road
Concord, MA 01742-2751

ATTN: Bill Kavanaugh
Telephone: 978-318-8328
FAX: 978-318-8891
Email: william.kavanaugh@usace.army.mil

Commander (OAN)
1st U.S. Coast Guard District

408 Atlantic Avenue
Boston, MA 02210-3350
ATTN: John Mauro
Telephone: 617-223-8355
Email: jmauro@dluscg.mil

Pilots Association

Boston Pilots
Pier 1
South Bremen Street
East Boston, MA 02128

ATTN: Captain Larry Cannon, President
Telephone: 617-569-4500
Email: home@bostonpilots.com

NOAA
National Marine Sanctuaries Program

Brad Barr, Senior Policy Analyst
Conservation Policy and Planning Branch
NOAA's National Marine Sanctuaries Program
c/o U.S. Geological Survey
384 Woods Hole Road
Woods Hole, MA 02543
Telephone: 508-457-2234
FAX: 508-457-2309
Email: Brad.Barr@noaa.gov

U.S. Geological Survey

Bradford Butman, Chief Scientist
U.S.G.S. Woods Hole Field Center
384 Woods Hole Road
Woods Hole, MA 02543
Telephone: 508-548-2212 ext.2212
FAX: 508-457-2309
Email: bbutman@usgs.gov

Massachusetts Port Authority

One Harborside Drive
Suite 200S
East Boston, MA 02128-2909

ATTN: Michael A. Leone, Port Director
Telephone: 617-946-4413
FAX: 617-946-4422
Email: mleone@massport.com

Massachusetts Office of Coastal Zone Management

251 Causeway Street
Suite 900
Boston, MA 02114

ATTN: Anthony Wilbur
Telephone: 617-626-1217
FAX: 617-626-1240
E-mail: Tony.Wilbur@state.ma.us

NOAA Navigation Advisor

CDR Andrew L. Beaver
Navigation Advisor, NE Region
c/o National Marine Fisheries Service
28 Tarzwell Drive
Narragansett, Rhode Island 02882

Telephone: 401-782-3252

401-783-7608 (home)
FAX: 401-782-3292
Email: Andrew.L.Beaver@noaa.gov

8.6. Water Transparency: Secchi depth measurements are not required. Refer to Standing Instructions.

9.0. REPORTS: Refer to Standing Instructions.

9.1. Miscellaneous Reports: Refer to Standing Instructions.

9.2. Monthly Progress Sketches: A monthly progress sketch will be submitted within 5 days after the end of the month for each project. For the purpose of submitting the monthly progress, N/CS31 will provide the ship with MapInfo tables "ProgressSketch.tab" (customized for the project) and "ProjectStatistics.tab". Both of these tables and the associated raster chart(s) will be included on a MapInfo workspace and provided on the project CD-ROM. The provided workspace will display sheet letter and percent complete for each survey region.

The field will be provided with the tool "MapUpdate.mbx" for the purpose of updating the "ProgressSketch" table. Run the "update all" function in the "MapUpdate.mbx" tool for the table "ProgressSketch". This function will use the columns in MapInfo

table ProgressSketch, cumulative percentage complete current month (CumlPercCompCurMon), cumulative percentage complete previous month (CumlPercCompPrevMon) and SNM (HQ_Est_SNM) to calculate SNM complete current month (SNM_CompCurMon) and cumulative SNM complete (CumSNMcomp). A procedure for creating the progress sketch will be included on the project CD-ROM.

Submit monthly progress sketch MapInfo tables and workspace (without raster chart) directly to N/CS31 via compressed (zipped) attachments in E-mail to progress.sketches@noaa.gov.

9.2.1. Survey Outlines: Provide a survey outline region in MapInfo, NAD 83, that shows the extent of hydrography for each registered survey when completed, or when data acquisition is completed on a sheet for the current field season. A Power Point demonstration on completing this outline is included on the project CD. Forward via email to survey.outlines@noaa.gov

9.2.1. Provide a vector digital file, as part of the survey records, that shows the extent of hydrography for each registered hydrographic survey, and if applicable, additional digital files that depicts the areas with completed full bottom coverage using side scan sonar or multibeam methods. The vector files will be in a MapInfo format with a "latitude and longitude (NAD 83)" projection.

10.0. MISCELLANEOUS: Refer to Standing Instructions.

10.1. Refer to Standing Instructions.

10.2. Public Awareness: Refer to Standing Instructions.

10.3. Support Data: All necessary support data for this project is included on the project CD-ROM dated July 14,2003. If any further information is required please notify the project manager using the contact information provided in section 10.5 below.

<u>Data Type</u>	<u>Project Instruction Reference</u>	<u>Source</u>	<u>Copies</u>	<u>Users</u>	<u>Transmittal Date or Number</u>
Tide Support and Predicted Tides*	5.8	N/OPS1	1	TJ	7/14/03
Prior Surveys*	6.10	N/CS35 N/CS33	2	TJ	7/14/03
Presurvey Review*	6.12	N/CS31 N/CS33	2	TJ	7/14/03

* On CD ROM

10.4. Seasonal Fisheries Information: From June to October the lobster fishery intensifies in the survey area. Numerous lobster pots and their attendant gear (buoys, warps, etc.) can be expected

to be encountered during the summer months. Every effort should be exercised to avoid disturbing this gear and the boats and lobstermen who work it. **Mr. Bill Adler, Executive Director of the Massachusetts Lobstermen's Association must be contacted by THOMAS JEFFERSON personnel prior to commencement of survey operations. A pre-survey notification letter was mailed to Mr. Adler by N/CS31 on July 14, 2003. A copy of this letter is attached to these instructions. Mr. Adler's contact information is in section 8.4.2 of these instructions.**

10.5. Submit recommendations through AHB to N/CS31 if it appears advisable to amend these instructions.

10.6. These project instructions were compiled by Stephen Verry. Please call 301-713-2702 x 106, FAX 301-713-4533, or E-mail stephen.verry@noaa.gov if you have any questions or comments that would improve the quality of these instructions.

10.7. Acknowledge receipt of these instructions via email to: Stephen.Verry@noaa.gov.

**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
FILE COPY**

MEMORANDUM FOR: Lieutenant Commander Donald W. Haines, NOAA,
Commanding Officer, NOAA Ship THOMAS JEFFERSON

FROM: W. Michael Gibson, Chief,
Hydrographic Surveys Division

SUBJECT: Hydrographic Survey Letter Instructions,
OPR-A397-TJ, Approaches to Boston,
Massachusetts

Subject Hydrographic Survey Letter Instructions is forwarded for signature and issue to Commanding Officer, NOAA Ship THOMAS JEFFERSON. The copies required for distribution by this office have been retained.

Attachment

CODE	SURNAME	DATE	CODE	SURNAME	DATE

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