

M-A902-TJ-07

NOAA FORM 76-35A

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

**HORIZONTAL AND VERTICAL
CONTROL REPORT**

Type of Survey: **Navigable Area**

Registry Numbers: **H11695**

LOCALITY

State: Massachusetts

General Locality: Cape Cod Bay

Sub-locality: NE Approaches to Cape Cod Canal

2007

CHIEF OF PARTY
CDR P. Tod Schattgen
NOAA

LIBRARY & ARCHIVES

DATE

HYDROGRAPHIC TITLE SHEET

M-A902-TJ-07

INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State: **Massachusetts**

General Locality: **Cape Cod Bay**

Sub-Locality: **NE Approaches to Cape Cod Canal**

Scale: **1:20,000** Date of Survey: **7 September to 6 November 2007**

Instructions Dated: **9 May 2007** Project Number: **M-A902-TJ-07**

Vessel: **NOAA Ship THOMAS JEFFERSON, S-222**

Chief of Party: **CDR P. Tod Schattgen, NOAA**

Surveyed by: **THOMAS JEFFERSON Personnel**

Soundings by: **RESON 7125, 8101 and 8125 multibeam echosounders**

Graphic record scaled by: **N/A**

Graphic record checked by: **N/A**

Protracted by: **N/A** Automated Plot: **N/A**

Verification by: **Atlantic Hydrographic Branch Personnel**

Soundings in: **Meters at MLLW**

Remarks:
1) All Times are in UTC.
2) This is a Navigable Area Hydrographic Survey.
3) Projection is UTM Zone 19N.

A. VERTICAL CONTROL

Vertical control for project M-A902-TJ-07 is consistent with Letter Instructions as provided by Hydrographic Surveys Division and CO-OPS. This project includes Navigable Area survey H11695.

A.1.1 WATER LEVEL OBSERVATION STATIONS

The primary water level observation station for project M-A902-TJ-07 is the National Water Level Observation Network (NWLON) station located at Boston, Massachusetts (844-3970). No installation, servicing, leveling, or maintenance of this station was required by THOMAS JEFFERSON personnel.

A.1.2 WATER LEVEL CORRECTORS

All tidal datum reduction procedures are consistent with the Letter Instructions and Tide Note. Datum reduction procedures are discussed in detail in the 2007 THOMAS JEFFERSON Data Acquisition and Processing Report.

During the acquisition period for M-A902-TJ-07, all echosounder data were corrected to MLLW using observed water levels and preliminary tide zoning. However, all echosounder data are now corrected and will be submitted with verified water levels and final tide zoning. Preliminary and final tide zoning were supplied to THOMAS JEFFERSON by CO-OPS.

A.1.3 Benchmark Positioning Procedures

No tidal benchmarks were positioned during project M-A902-TJ-07.

B. Horizontal Control

All horizontal control methods, techniques, and procedures for project M-A902-TJ-07 are adequately described in the 2007 THOMAS JEFFERSON Data Acquisition and Processing Report and the Descriptive Report for Navigable Area survey H11695. No horizontal control stations were established, serviced, or maintained by the field unit for project M-A902-TJ-07.

Table 1 – Times of Hydrography

Year_DOY	Min Time	Max Time
2007_250	15:42:59	23:33:40
2007_251	00:06:21	23:59:57
2007_252	00:00:02	23:59:57
2007_253	00:00:02	23:59:57
2007_254	00:00:02	23:59:57
2007_255	00:00:02	21:18:28
2007_272	17:25:42	20:29:37
2007_273	13:34:57	21:40:45
2007_274	13:01:53	20:21:48
2007_275	15:06:03	20:12:15
2007_283	13:36:31	21:12:24
2007_284	12:37:35	18:50:01
2007_285	13:05:42	21:11:37
2007_286	16:12:48	21:24:32
2007_287	12:48:40	19:24:38
2007_288	12:48:40	21:16:35
2007_290	12:34:16	21:12:15
2007_291	12:46:39	19:32:14
2007_296	13:03:32	14:56:24
2007_297	12:56:12	21:13:07
2007_299	13:59:42	21:19:34
2007_300	13:20:39	21:12:59
2007_301	13:21:30	16:49:22
2007_303	13:11:12	21:21:10
2007_304	12:31:36	21:21:48
2007_305	12:31:41	20:12:54
2007_306	16:14:08	17:09:18
2007_309	12:59:53	21:15:52
2007_310	14:49:21	14:50:38

E. APPROVAL

As Lead Hydrographer, I have ensured that standard field surveying and processing procedures were followed in producing this examination in accordance with the National Ocean Service Standing Instructions for Hydrographic Surveys, Office of Coast Survey Hydrographic Surveys Division's 2007 *Field Procedures Manual*, and NOS 2007 *Hydrographic Surveys Specifications and Deliverables*.

I acknowledge that all of the information contained in this report is complete and accurate to the best of my knowledge.

Respectfully Submitted:

Handwritten signature of Megan A. Nadeau, ENS/NOAA

ENS Megan A. Nadeau, NOAA
Tides Officer

Approved and Forwarded:

LT Christiaan vanWestendorp, NOAA
Field Operations Officer

CDR P. Tod Schattgen, NOAA
Commanding Officer