

OPR-D304-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 Number:	H11651, H11652
LOCALITY	
State:	Virginia
General Locality:	North Atlantic Ocean
Sub-locality:	Approaches to Chesapeake Bay
2007	
CHIEF OF PARTY CAPT Raymond C. Slagle NOAA	
DATE	LIBRARY & ARCHIVES

NOAA FORM 77-28
(11-72)

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

PROJECT NUMBER:

HYDROGRAPHIC TITLE SHEET

OPR-D304-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: **Virginia**

General Locality: **North Atlantic Ocean**

Sub-Locality: **Approaches to Chesapeake Bay**

Date of Survey: **March 31-May 21, 2007**

Instructions Dated: **March 16, 2007**

Project Number: **OPR-D304-TJ-07**

Vessel: **NOAA Ship THOMAS JEFFERSON**

Chief of Party: **CAPT Raymond C. Slagle, NOAA**

Surveyed by: **THOMAS JEFFERSON Personnel**

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 18.**

A. VERTICAL CONTROL

Vertical control for project OPR-D304-TJ-07 is consistent with Letter Instructions as provided by Hydrographic Surveys Division and CO-OPS. This project includes Navigable Area surveys H11651 and H11652.

A.1.1 WATER LEVEL OBSERVATION STATIONS

The primary water level observation station for project OPR-D304-TJ-07 is the National Water Level Observation Network (NWLON) station located at Chesapeake Bay Bridge Tunnel, Virginia (866-8830). No installation, servicing, leveling, or maintenance of this station was required by THOMAS JEFFERSON personnel.

Water level data from two secondary water level observation stations for project OPR-D304-TJ-07: NWLON stations Kiptopeke, Virginia (863-2200) and Rudee Inlet, Virginia (863-9207). No installation, servicing, leveling, or maintenance of these stations was required by THOMAS JEFFERSON personnel.

Rudee Inlet (863-9207) station water level data was deemed poor and unreliable due to gage silting from May 15 -May 21, 2007. Accordingly, Rudee Inlet (863-9207) station was not used on the dates of May 19 – May 21, 2007.

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, the TCARI SOP supplied to the field party by CO-OPS, and the Tide Note.

From March 31 – May 18, 2007 echosounder soundings were corrected to MLLW using observed water levels with a preliminary TCARI model supplied to THOMAS JEFFERSON by CO-OPS for project OPR-D304-TJ-07. From May 19 - 21, 2007 echosounder soundings were corrected to MLLW using observed water levels with preliminary tide zoning supplied to THOMAS JEFFERSON by CO-OPS for project OPR-D304-TJ-07.

During survey operations, a bust was found in the TCARI grid D304TJ2007-TCARI.tc. The field unit notified CO-OPS and was supplied a corrected file. This corrected file, Revised-D304TJ2007-TCARI.tc was used to apply water level correctors and residuals to all survey data acquired from March 31 – May 18, 2007 for project OPR-D304-TJ-07.

A.1.3 Benchmark Positioning Procedures

No tidal benchmarks were positioned during project OPR-D304-TJ-07.

B. Horizontal Control

All horizontal control methods, techniques, and procedures for project OPR-D304-TJ-07 are adequately described in the 2007 THOMAS JEFFERSON Data Acquisition and Processing Report and the Descriptive Report for surveys H11651 and H11652. No horizontal control stations were established, serviced, or maintained by the field unit for project OPR-D304-TJ-07.

Table 1 – Dates of Hydrography

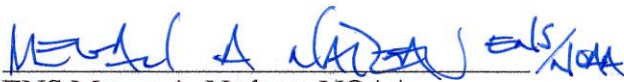
Year_DOY	Min Time	Max Time
2007_090	04:08:25	23:43:46
2007_091	00:03:22	09:58:27
2007_092	00:34:11	23:59:06
2007_093	00:34:20	06:43:29
2007_095	04:51:37	11:39:17
2007_096	05:10:38	10:46:33
2007_097	04:06:57	23:59:57
2007_098	00:00:02	10:58:22
2007_099	04:31:21	11:00:20
2007_100	02:46:36	23:54:04
2007_101	00:08:11	10:30:54
2007_102	01:32:36	10:26:10
2007_103	04:03:05	09:23:20
2007_109	03:02:05	10:29:20
2007_110	05:39:48	23:56:57
2007_111	00:04:10	23:59:57
2007_112	00:00:02	23:51:12
2007_113	00:00:27	09:34:07
2007_129	20:30:25	23:59:57
2007_130	00:00:02	08:20:08
2007_139	23:05:28	23:59:58
2007_140	00:00:02	23:57:27
2007_141	00:08:08	18:25:00

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 *Field Procedures Manual*, and NOS *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:



ENS Megan A. Nadeau, NOAA
Tides Officer

Approved and Forwarded:

LT Christiaan VanWestendorp, NOAA
Field Operations Officer

Captain Raymond C. Slagle, NOAA
Commanding Officer