

## APPENDIX IV. TIDES AND WATER LEVELS

The on-line times for acquisition of valid hydrographic data are presented in the Abstract of Times of Hydrography, H12093.

**Project:** OPR-D302-SA-09

**Registry No.:** H12093

**Contractor Name:** Science Applications International Corporation

**Date:** 19 November 2010

**Sheet Letter:** Q

**Inclusive Dates:** 22 September 2010 – 19 November 2010

Field work is complete.

**Table Appendix IV-1. Abstract Times of Hydrography, H12093**

<b>Begin Date</b>	<b>Begin Julian Day</b>	<b>Begin Time</b>	<b>End Date</b>	<b>End Julian Day</b>	<b>End Time</b>
09/22/2010	265	15:22:55	09/25/2010	268	01:01:11
10/10/2010	283	10:05:30	10/10/2010	283	11:01:02
10/10/2010	283	20:38:13	10/11/2010	284	09:56:43
10/11/2010	284	20:50:36	10/12/2010	285	12:44:16
10/12/2010	285	21:32:53	10/14/2010	287	10:19:35
10/17/2010	290	20:30:28	10/21/2010	294	03:28:13
10/23/2010	296	18:25:42	10/25/2010	298	04:05:37
10/30/2010	303	11:42:42	10/31/2010	304	01:44:55
10/31/2010	304	16:53:54	11/03/2010	307	21:35:54
11/18/2010	322	13:48:05	11/19/2010	323	07:13:35

### Final Tide Note

Observed verified water levels were downloaded from the [NOAA Tides and Currents](#) web site for the station in Duck, NC (8651370). Water Level correctors were prepared for each zone using the **SABER/Tools/Create Water Level Files** software. **SABER/Apply Correctors/Tides** software applied these files to the multibeam data according to the zone containing the nadir beam of each ping.

The H12093 multibeam data fell entirely within the NOAA supplied tide zone SA46A. Analysis of multibeam data collected from all sheets of this Project using **SABER's Multi-View Editor** and bathymetry grids revealed minimal depth changes across the junction of the supplied zones based on the preliminary zoning parameters and data from the tide station in Duck, NC (8651370). A statistical analysis also confirmed the adequacy of zoning correctors based on Duck, NC (8651370), refer to the Horizontal and Vertical Control Report for Project OPR-D302-SA-09, Submitted with this DR, Section A.1 for details regarding final tides for the entire project. The water level zoning

correctors based entirely on Duck, NC (865-1370) were applied to all multibeam data for H12093.

No final tide note was provided by NOAA Center for Operational Oceanographic Products and Services (CO-OPS), this project is not required to have a final tide note from CO-OPS.