

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

VERTICAL AND HORIZONTAL CONTROL REPORT

Type of Survey **Basic Hydrographic**
(Navigable Area Concept)

Project **OPR-E346-BH**

LOCALITY

State/Territory **Maryland**

General Locality **Chesapeake Bay**

2001

CHIEF OF PARTY
Lawrence T. Krepp, LT, NOAA

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

**VERTICAL AND HORIZONTAL CONTROL REPORT
TITLE SHEET**

Project Number: **OPR-E346-BH**

State/Territory: **Maryland**

General Locality: **Chesapeake Bay**

Surveys: **H11026, F00481**

Dates of Surveys: **01/16/01 to 09/19/02 for H11026**
09/21/01 to 04/16/02 for F00481

Locality of Surveys: **Bodkin Point to Love Point H11026**
Canton Piers F00481

Instructions Dated: **03/19/01**

Vessel: **S/V Bay Hydrographer**

Chief of Party: **Lieutenant Lawrence T. Krepp, NOAA**

Surveyed by: **Bay Hydrographer Personnel**

A. VERTICAL CONTROL

The tidal datum for this project is Mean Lower Low Water (MLLW). The operating tide station at Tolchester, MD (857-3364) served as control for datum determination.

Tidal zoning for this survey is consistent with the Letter Instructions. The zone data applicable for this survey is as follows.

STATION	CORRECTOR (min)	RATIO	REFERENCE
NCB91	-66	x0.88	857-3364
NCB92	-72	x0.84	857-3364
NCB93	-60	x0.88	857-3364
NCB94	-60	x0.84	857-3364
NCB95	-54	x0.84	857-3364
NCB96	-54	x0.88	857-3364
NCB112	-42	x0.97	857-3364
NCB113	-42	x0.88	857-3364
NCB114	-42	x0.80	857-3364

A Request for Approved Tides letter was sent to N/OPS1 on September 24, 2002 (Appendix IV). Verified tides from the N/OPS1 CO-OPS website were downloaded on July 15, 2002, and applied to all sounding data.

B. HORIZONTAL CONTROL

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 18.

Sounding positional control was determined using the Global Positioning System (GPS) corrected by U.S. Coast Guard differential GPS (DGPS) beacon stations. The primary DGPS beacon's used for this survey were Annapolis and Cape Henlopen. Horizontal control stations were not used for this survey.

In addition to performance checks, horizontal dilution of precision (HDOP) and the positional dilution of precision (PDOP) were monitored daily. Neither value exceeded 4.00,

and adequate satellite coverage was maintained throughout the survey period.

C. APPROVAL SHEET

OPR-E346-BH
Chesapeake Bay
Maryland

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

Respectfully,

Lawrence T. Krepp
Lieutenant, NOAA
Officer in Charge
NOAA S/V Bay Hydrographer

Date