C. Vertical and Horizontal Control

No vertical or horizontal controls were established, recovered, or occupied during data acquisition for OPR-J312-KR-14, which includes H12654. Therefore a Horizontal and Vertical Control Report was not required.

C.1 Vertical Control

The vertical datum for this project is Mean Lower Low Water.

Standard Vertical Control Methods Used:

Discrete Zoning

The following National Water Level Observation Network (NWLON) stations served as datum control for this survey:

Station Name	Station ID
Dauphin Island, AL	8735180
Pascagoula NOAA Lab, MS	8741533

Table 8: NWLON Tide Stations

File Name	Status
8735180_verified_072014_to_102014.tid	Verified Observed
8741533_verified_072014_to_102014.tid	Verified Observed

Table 9: Water Level Files (.tid)

File Name	Status
J312KR2014CORP.zdf	Final

Table 10: Tide Correctors (.zdf or .tc)

No final tide note was provided by the NOAA Center for Operational Oceanographic Products and Services (CO-OPS). Leidos is not required to have a final tide note from CO-OPS for H12654 however, a final tide note has been provided by Leidos in Appendix I.

The Tides Statement of Work specified NOAA tide stations 8735180 Dauphin Island, AL and 8741533 Pascagoula NOAA Lab, MS as the sources for water level correctors. A full explanation of the tide zone assessment is detailed in Section C.4 of the DAPR. For H12654, 8735180 Dauphin Island, AL, or 8741533 Pascagoula NOAA Lab, MS, were the source of all final verified water level heights for determining correctors to soundings. All data for H12654 were contained within five tide zones (CGM46, CGM47, CGM122, GB2, and GB3) which were provided from NOAA.

Leidos did not revise the delivered tide zones for tide stations 8735180 Dauphin Island, AL and 8741533 Pascagoula NOAA Lab, MS as the water level zoning parameters in the file J312KR2014CORP.zdf, provided by National Ocean Service (NOS) were deemed adequate for the application of observed verified water levels. As a result, they were accepted as final and applied to all H12654 bathymetry data.

C.2 Horizontal Control

The horizontal datum for this project is North American Datum of 1983 (NAD83).

The projection used for this project is UTM Zone 16, North.

Please refer to the DAPR for details regarding all antenna and transducer offsets.

During survey data acquisition, the ISS-2000 real-time system provided a continuous view of the positioning comparison between the POS/MV and the Trimble DGPS. An alarm was triggered within ISS-2000 if the comparisons were not within an acceptable range. Any soundings with total horizontal uncertainties exceeding the maximum allowable IHO S-44 5th Edition Order 1a specifications were flagged as invalid and therefore were not used in the CUBE Depth calculations.

The following DGPS Stations were used for horizontal control:

DGPS Stations
English Turn, LA (293 kHz)
Eglin (AFB), FL (295 kHz)

Table 11: USCG DGPS Stations