**2017-12-05 SZ**

Info for 2008-30 header:

CTD Pressure: Lab calibration was adjusted by applying +0.9dbar offset to the bias based on in-air surface readings of the CTD.

CTD Temperature: Pre-cruise lab calibration was used after comparisons with dual sensor and post-cruise calibration information.

CTD Conductivity: Pre-cruise lab calibration adjusted after comparisons with dual sensor, post-cruise calibrations and water sample data. For casts 1 to 43, primary conductivity received offset of -0.0013 mS/cm. For casts 44 to 53, primary was changed by -0.0007 mS/cm. For casts 54 to 73, primary was changed by -0.0004 mS/cm.

CTD Oxygen: Oxygen data are from three SeaBird SBE43 sensors which were installed for casts 1 to 5, 6 to 22 and 23 to 73 respectively. They were installed with pumped flow in-line after the primary temperature and conductivity sensors. A lag of -8 seconds was applied to oxygen voltage in the Seabird processing step Align. Downcast CTD oxygen voltage and upcast temperature and salinity were used to calibrate CTD to water sample oxygen (upcast). The 73 casts required 12 calibration groups. Fitting method followed Seabirds Application Note 64-2 (“SBE 43 Dissolved Oxygen Sensor Calibration and Data Corrections using Winkler Titrations”). A remaining pressure dependent shape in the residual between water sample and CTD oxygen was removed by subtracting a mean curve.  Parts of the mean curve were found by fitting sections of data from discreet pressure ranges.  The parts were then stitched together via spline interpolation to create a full profile mean curve.

CTD Fluorometer: Fluorometer data are from a Seapoint sensor with pumped flow in-line after the secondary temperature and conductivity sensors. Calibration with bottle data performed using bottle chlorophyll values between 0.025 and 0.60 mg/m3. The number of observations used were 121 out of 177 with a standard deviation of 0.01 in the residuals. Coefficients used: Slope: 1.3324, Bias -0.0174. Alignment of -3 seconds was used.

Transmissometer data are unprocessed, using calibration from 26 May 2008 (s/n 662) and 9 Jun 2008 (s/n993).

CTD CDOM Fluorometer data are unprocessed and given as raw voltage.

Altimeter data are unprocessed, using calibration from Mar 2005.