

Processing of backscattering data for NAAMES01  
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Data for CDOM fluorescence (WETLabs WETStar, units Volt) and backscattering (Eco-BB3 #349 from OSU) was time-stamped and logged on a WETLabs DH4. Files were extracted from DH4 and merged with the in-line files from the R/V Atlantis (1min resolution) which include GPS, temperature, salinity and a chlorophyll flurometer (WETLabs WETStar, units mVolt). Since the data was spikey at times, we used to 10<sup>th</sup> percentile of each minute to represent the true backscattering coefficient (backscattering was collected at 1hz).

The backscattering sensor was calibrated by Jim Sullivan of FAU on 10/20/15 and 6/29/16. The differences are (-6, -1 and 14%) for 470, 532, and 660 respectively. The 10/29/15 calibration is used due to proximity in time.

For darks we use the dark counts measured on NAAMES on 11/18/15. Differences with dark measured by Sullivan are (-1, 0 and -4 counts) for 470, 532, and 660 respectively. We compute the particulate backscattering coefficients (m<sup>-1</sup>) using local salinity and temperature using Zhang et al., 2009 and assume a  $\chi$ -factor of 1.076 (nominal angle 124, Sullivan et al., 2013). We use Dall'Olmo et al., 2009, parameters to correct for wall effects.

The last 10min of every hour was filtered through a 0.2um filter. We therefore removed all the bb data afer 49min and before 2min.

Data filtered out is flagged as -9999.

Nominal wavelengths [nm]	Slope [sr <sup>-1</sup> count <sup>-1</sup> ]	Dark [counts]	Uncertainties [m <sup>-1</sup> ]
469	8.927E-06	54.8	Max(11%,6e-5 )
526	4.673E-06	50.2	Max(10%,3e-5)
656	3.551E-06	43.2	Max(17%,5e-5)