APEX Profile Data

The CTD and optical profile data used for the report are given in two formats. The LEIDOS format does not contain any flagged missing values, and uses one-dimensional indexed arrays to store the depth, salinity, and temperature profiles by location and time (sometimes called ragged arrays). These files are in the *leidos* folder. The netcdf file description is given in *Leidos_CTD_netcdf.pdf* in this folder.

The CTD data was QA/QC'd by US Argo and the original netcdf files downloaded from US Argo are provided in the *usargo* folder. The Argo data guide and the Argo user's manual are provided in this folder. In the Argo netcdf format fixed two-dimensional depth-time arrays are used with missing depth levels flagged.

The optical data was processed by WHOI using a modification of the Argo format. Because the optical instrument's data collection was not synchronized with the CTD, the arrays contain the unedited optical measurements at the depths recorded and the temperature and salinity were interpolated to the same depths as the optical measurements from the more dense CTD data taken on the same profile. The optical profiles are given in the *optical_ctd* folder.

Note that the optical netcdf files use the newer netcdf4 (or hdf5) encoding, whereas the US Argo and Leidos CTD profile nectdf files use the classic (netcdf3) encoding.

The seven BOEM Apex floats with CTD and optical sensors that profile to 1500 m are:
4902284
4902285
4902286
4902287
4902288
4902289
4902290

US Argo float CTD sensors that profile to ~1000 m are:
4901043
4901044
4901272
4901526
4901528
4901529
4901646

The subset of US Argo (non BOEM) CTD data that were used for the report analysis are in the LEIDOS netcdf files (good profiles to at least 1000 m and at least 7-days apart). The complete US Argo profiles for the non-BOEM floats are included in the *usargo* folder

Inquiries about these data should be made to:
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