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Submission Read Me

Submission Title: Conductivity-Temperature-Depth (CTD) data as part of the OSNAP (Overturning in the Subpolar North Atlantic Program), from 2016 on the R/V Neil Armstrong (AR07-02).

Summary:

Chief Scientist: Robert Pickart (rpickart@whoi.edu)
Associated Program: Overturning in the Subpolar North Atlantic Program (OSNAP)
Ship: R/V Neil Armstrong
Cruise: AR07-02
Dates: Aug 3, 2016 – Sep 8, 2016
Ports: Reykjavik, Iceland – St. Johns, Newfoundland

Description:

The Overturning of the Subpolar North Atlantic Program (OSNAP) is an effort to determine the strength of the meridional overturning circulation and associated heat and freshwater fluxes in the subpolar North Atlantic. It is a collaborative program with scientists from the U.S., U.K., Netherlands, Germany, France, Canada, and China. Together, a series of hydrographic surveys and mooring deployments have been completed across the boundaries of the Labrador Sea, Irminger Sea, Iceland Basin, and eastern subpolar North Atlantic.

This submission contains CTD data from the Labrador Sea and Irminger Seas near southern Greenland from the AR07-02 research cruise in 2016. The primary purpose of this dataset is to aid in calibration of moored instrumentation in the region associated with the OSNAP program. Each CTD file contains pressure-averaged data for one CTD station following the World Ocean Circulation Experiment (WOCE) format and quality specifications for CTD data (Joyce and Corry 1994). CTD sensors have been scaled with pre-cruise calibrations from their respective manufacturers. All CTD salinity measurements have been post-calibrated using bottle salinity measurements.

Methods:

CTD casts were performed using a ship-provided Sea Bird 911plus CTD and deck unit (<https://www.seabird.com/profiling/sbe-911plus-ctd/family?productCategoryId=54627473769>) configured to measure pressure, temperature, conductivity, oxygen current, and other variables. The CTD data were acquired by an SBE Deck Unit providing demodulated data to a personal computer running SEASAVE (version 7.21k) acquisition software. Calibrations for CTD sensors were performed by the manufacturer before the cruise. As per manufacturer recommendations, CTD data were processed using Sea Bird data processing software (version 7.22.0). All Sea Bird software can be found at <https://www.seabird.com/software-updates>.

Files included in this submission:

Documentation files:

Submission_read_me_CTD_AR07.pdf	This file
ar07_02_CTD_Calibration_Report.pdf	Detailed information regarding file formats, CTD performance, and calibration

Data files:

ar0702_000.dcc - ar0702_314.dcc	CTD data files
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ar0702_000.cbots - ar0702_255.cbots Bottle data files

References

Joyce, T. and C. Corry. 1994. Requirements for WOCE hydrographic programme data reporting. Technical Report, WHPO Publication 90-1 Revision 2.