

CTD Data Files

IOS Cruise Number 2006-18

Cruise

There were 64 CTD casts performed aboard the *CCGS Louis S. St-Laurent* during August 2006 (53 casts from the Canada Basin and 11 from the Canadian Archipelago) using a SBE911+ CTD system with 24 10-L Niskins. XCTDs, vertical net tows for zooplankton, moorings and ice-tethered profilers were also conducted/deployed/recovered during this trip.

Data Summary

The CTD data for down and upcasts are provided in 1-db averaged files (*.cnv), in Seabird's text format with one file per cast and separate files for down and up direction. The files contain both processed and unprocessed variables, described below. **The downcast files are the primary data set however the upcast files are provided because of their usefulness for confirming unusual features seen in the downcast.** The May2007 version of the CTD data was missing CTD oxygen. CTD oxygen has been added after calibrating the data to the corrected oxygen water sample data.

Downcast

Filename: d200618_XXX.cnv where XXX is cast number

Standard seabird processing steps were used.

Pressure, primary and secondary temperature, primary and secondary conductivity, and oxygen have been calibrated.

Spikes in primary temperature, primary conductivity and oxygen have been interpolated over and where needed secondary values (when available) have replaced the primary values.

Derived variables, salinity, potential temperature, sigma-theta and sound velocity, were recalculated.

Transmission, fluorescence and altimetry have not been calibrated.

Upcast

Filename: u200618_XXX.cnv where XXX is cast number

Upcast is supplied only as it provides a reference for unusual features seen in the downcast.

Standard seabird processing steps were used.

No spikes have been removed.

Pressure, primary and secondary temperature, and primary and secondary conductivity have been calibrated.

CTD oxygen has not been calibrated (coefficients appropriate for the downcast have been applied)

Derived variables, salinity, potential temperature, sigma-theta and sound velocity, were recalculated.

Transmission, fluorescence and altimetry have not been calibrated.

Oxygen has been held back waiting for a water sample issue to be resolved, however the upcast receives the downcast calibration terms and is only useful as reference.

Data Notes:

Although three oxygen sensors were swapped in and out during the cruise, the one sensor that performed well throughout has been labelled primary and the others have been removed from the final data.

Two transmissometers were used for casts 49 to 75. They were repositioned on cast 64 changing the naming of which was called primary and which secondary.

In summary:

Casts 1-48, One Transmissometer, s/n 662

Casts 49-63, Two Transmissometers, s/n 662 is now secondary, s/n 993 is primary

Casts 64-75, Two Transmissometers, s/n 662 is primary again, s/n 993 is secondary

By the end of the leg following this cruise, three of the 6-pin auxillary bulkhead connectors had problems with leaking. The variables given in the final data for this cruise (casts 1 to 75) have not affected by the connector problem.