CSIRO MARINE RESEARCH

Processing Notes

SS 2/2004

10:00 29 January 2004 Fremantle - 10:43 4 February 2004 Fremantle (Local times)

Data processing completed by
Bernadette Heaney, June 2004

1. Summary

These notes relate to the production of quality controlled (QC-ed), position, depth and metero-logical and thermosalinograph data from RV Southern Surveyor voyage 2/2004.

Position data was acquired using an Ashtech OEM 2 sensor and the Seapath 200 position and motion reference unit. Depth data was acquired with the Simrad EA500. The Divisional Data Librarian can assist with information regarding all other sensors.

2. Voyage details

"Dynamics of the Perth Canyon, Western Australia - Linking oceanographic drivers, plankton, fish communities and seasonal blue whale aggregations"

2.1 Principal Investigators

Dr Robert McCauley

Centre for Marine Science and Technology

Curtin University, Western Australia

Processing Notes

Dr Doug Cato

Defence Science and Technology Organisation

Pyrmont, NSW

3. Processing Notes

3.1 Background Information

Thermosalinograph raw files were modified to interpolate across spikes in temperature values.

A combined underway file for the entire voyage, consisting of 10 second values of position, depth, meterological (including uncorrected wind speed and direction) and thermosalinograph variables was remade on 3 June 2004 - by reading data from hourly files returned from the voyage and modified .tsr files. (Time range 02:29:20 29-Jan-2004 - 03:06:50 04-Feb-2004).

The water depth was “repicked” using echoview software. The depth data was interpolated to 10 second values. The new depths were read back into the netcdf file.

The meteorological data consists of air temperature, humidity, light, atmospheric pressure, wind speed and direction and maximum wind gust. The wind speed and direction were re-calculated from uncorrected wind speed and direction, ships heading and ship speed overground and ship course over ground. The maxWindGustQC flag was set to bad.

The thermosalinograph data consists of water temperature and water salinity. Salinity data from the start until 01:02 31-Jan-2004 was affected by bubbling caused by the lower pump being used.

At one site, three bottle salinity samples were taken and salinity values determined. The salinity bottle data versus instrument salinity compared well.

4. Other

The navigation, depth, meteorological and thermosalinograph data will be entered into the data warehouse. Position, depth and meteorological and thermosalinograph data extracted from the underway file is available online.

5. References

Pender, L., 2000: Data Quality Control Flags. http://www.csiro.marine.au/datacentre/ext_docs/DataQualityControlFlags.pdf

Bernadette Heaney

CSIRO Marine Research

Hobart, Tas, Australia

