

SS 8/2003

10:00 1 October 2003 Fremantle - 10:00 23 October 2003 Fremantle (Local times)

Data processing completed by
Bernadette Heaney, December 2003 (amended April 2004)

1. Summary

These notes relate to the production of quality controlled (QC-ed), position, depth and meteorological and thermosalinograph data from RV Southern Surveyor voyage 8/2003.

Position data was acquired using an Ashtech OEM 2 sensor. Depth data was acquired with the Simrad EA500. The Divisional Data Librarian can assist with information regarding all other sensors.

In April 2004 it was decided to reprocess the corrected wind speed and direction data due to incorrect ship speed being used in the correction routine.

2. Voyage details

“Meso-scale eddies off SW Australia: death traps or nurseries for fisheries recruitment?”

2.1 Principal Investigator

Dr Anya M Waite

Processing Notes

Centre for Water Research

University of Western Australia

3. Processing Notes

3.1 Background Information

A combined underway file for the entire voyage, consisting of 10 second values of position, depth, and other underway variables was remade on 3 December 2003 - by reading data from hourly files returned from the voyage. (Time range 04:35:50 30-Sep-2003 to 12:04:10 22-Oct-2003). Valid position data starts on 01-Oct-2003 02:25:10.

The meteorological data consists of air temperature, humidity, light, atmospheric pressure, wind speed and direction and maximum wind gust.

In April 2004 the uncorrected wind speed and direction values were extracted from the .mer files and “corrected” using ship heading, from the gyro compass and ship speed over ground and ship course over ground from the .gpd files. The resultant wind speed and direction values were added to the ss200308.nc file. The maxWindGustQC flag was set to bad.

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 thermosalinograph data consists of water temperature and water salinity. Salinity data was filtered allowing a second difference of less than .2 and a range of between 35.0 and 36.0. Salinity and water temperature data was rejected for 23:09 13-Oct-2003 to 06:22 14-Oct-2003 because it was reported that the instrument’s pump was not working correctly.

At three sites, three bottle salinity samples were taken and salinity values determined. The salinity bottle values agreed well with the data at those times.

Processing Notes

4. Other

The 10 second 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

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