CSIRO

MARINE RESEARCH

Processing Notes

SS 8/2004

13:00 02 September 2004 Sydney - 09:30 13 September 2004 Brisbane

(Local times)
Data processing completed by
Bernadette Heaney, September 2004

Wind Speed and Direction corrected
Bernadette Heaney, June 2006

1. Summary

These notes relate to the production of quality controlled (QC-ed), position, depth and meterological and thermosalinograph data from RV Southern Surveyor voyage 8/2004.
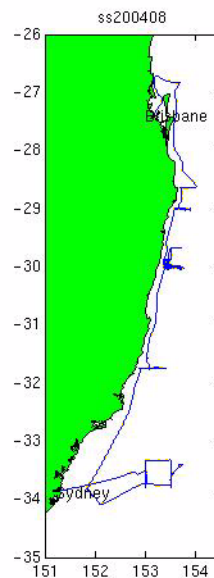
Position data was acquired using the Seapath 200 position and motion reference unit. Depth data was acquired with the Simrad EA500. The Divisional Data Librarian can assist with information regarding all other sensors.

2. Voyage details

"High resolution dynamics of frontal systems and the zooplankton biomass size spectrum"

2.1 Principal Investigators

Professor Jason Middleton and A/Professor Iain Suthers

University of New South Wales

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 and thermosalinograph variables was remade on 15 September 2004 - by reading data from hourly files returned from the voyage and modified .tsr files. (Time range 03:23:10 0 02-Sep-2004 - 23:31:30 12-Sep-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. Some data was flagged

as suspect as the set depth range was too shallow - therefore there was no echogram - but the depth recorded seemed plausible.

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

It was noticed in January 2006 that the uwyLogger progam had not been correcting the wind speed and wind direction data for ships motion. The wind speed and wind direction data were recorrected in June 2006; the data was flagged good, manually adjusted (48). MaxWindGust was set to NaN, and flagged as bad data.

The thermosalinograph data consists of water temperature and water salinity.

No bottle samples were taken to compare the salinity values. Lindsay Pender found that there was an offset of -0.0202 in the salinity - this has been added to the salinity values. He determined this by running the tsg flow through the CTD and recording the data for comparison. Some spikes were removed from the salinity data by doing a second difference test with a value of 0.2.

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

Processing Notes

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

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