
SS 5/2004

10:00 3 May 2004 Sydney - 19:00 27 May 2004 Noumea

(Local times)

Data processing completed by
Bernadette Heaney, June 2004

Wind Speed and Direction corrected by
Bernadette Heaney, June 2006

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 5/2004.

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

“The geology of a large submerged continental block: the Kenn Plateau off north east Australia”

2.1 Principal Investigators

Dr Neville Exon

Processing Notes

Geoscience Australia, Canberra

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, meteorological and thermosalinograph variables was remade on 18 June 2004 - by reading data from hourly files returned from the voyage and modified .tsr files. (Time range 00:56:00 03-May-2004 01:31:50 27-May-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, and maximum wind gust data was rejected until 03:07 03-May-2004 when the correct algorithm was used to calculate the values.

When the new algorithm was incorporated in the code, the data structure of the output hourly .mer files of ‘HDSPD’ parameter (heading and speed) were changed to ‘HDSPD2’ (heading, course and speed). Unfortunately, the uwyLogger program which produced the netcdf for the entire voyage wasn’t changed to incorporate the data format changes; the program also continued to flag windSpeed and windDirection parameters as good. This problem was discovered in January 2006. Subsequently the windSpeed and windDirection were “corrected” in June 2006; maxWindGust was set to NaN and bad data flag.

The thermosalinograph data consists of water temperature and water salinity. Temperature data was rejected due to the instrument being tested at various times on 13th, 14th and 20th May.

Processing Notes

Bottle salinity samples were taken and salinity values will be determined when the samples are returned to Hobart in July.

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

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