
SS 4/2003

07:00 9 May 2003, Cairns - 08:00 10 June 2003 Darwin (Local times)

Data processing completed by
Bernadette Heaney, December 2003

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 4/2003.

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.

2. Voyage details

“Sources and sinks of terrigenous sediments in the southern Gulf of Carpentaria”

2.1 Principal Investigator

Dr Peter T. Harris

Geoscience Australia

Processing Notes

3. Processing Notes

3.1 Background Information

Position - GPS -Ashtec OEM sensor - full resolution NMEA strings are recorded in hourly files.

Depth - Simrad EA 500 sounder and EK 500 sounder - full resolution data recorded in hourly files (switched between instruments during voyage).

A combined underway file for the entire voyage, consisting of 10 second values of position, depth, and other underway variables was remade on 4 December 2003 - by reading data from hourly files returned from the voyage. (Time range 20:49:30 08-May-2003 to 17:48:10 09-Jun-2003).

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

The thermosalinograph data consists of water temperature and water salinity.

The raw thermosalinograph .tsg and .tsr files were re-made by Bob Beattie in Hobart with corrected calibration constants. The corrected data was used when re-making the 10 second values. The water temperature and salinity data was quality controlled. Salinity data was filtered (second difference with 0.2 tolerance) because bubbling caused spikes in the data values

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Salinity data when the pumps were turned off were not included.

22:55 29-May-2003 to 05:25 30-May-2003

02:58 01-Jun-2003 to 03:30 01-Jun-2003

Processing Notes

05:30 05-Jun-2003 to 06:20 05-Jun-2003

Bottle salinity samples were taken. An offset could not be determined. But overall bottle data agreed well.

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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