

## SS 4/2006

16:00 12-Apr-2006 Esperance - 08:00 01-May-2006 Fremantle

*(Local times)*

*Data processing completed by*  
**Bernadette Heaney, May 2006**

### 1. Summary

These notes relate to the production of quality controlled (QC-ed), position, meteorological, thermosalinograph and depth data from RV Southern Surveyor voyage 4/2006.

### 2. Voyage details

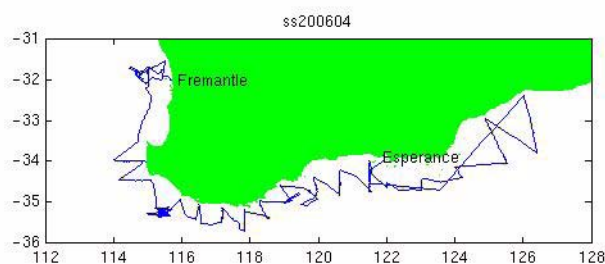
“Continental shelf processes between Cape Leeuwin and the Great Australian Bight during the summer”

#### 2.1 Principal Investigator

Professor Charitha Pattiaratchi, The University of Western Australia

## Processing Notes

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### 3. Processing Notes

#### 3.1 Background Information

Position data was acquired using the Seapath 200 position and motion reference unit (which also is differentially corrected by data from the FUGRO DGPS receiver).

Digital depth data was acquired with the Simrad EA500 sounder. Echograms were also recorded using SonarData's Echolog software.

Thermosalinograph data was acquired with a Seabird TSG (S#1777) and remote temperature SBE 3T (S#2621).

The "Met" station consists of 2 relative humidity and temperature sensors, port (X2030106) and starboard (X20303107). A barometer (465595), wind sensor (type 05103) and licor light sensor (UWQ3708) and rain gauge type 50202, serial number 236.

## Processing Notes

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A combined underway file for the entire voyage, consisting of 10 second values of position, depth, meteorological and thermosalinograph variables was remade on 18-May-2006 - by reading data from hourly files returned from the voyage. (Time range 12-Apr-2006 07:54:30 - 30-Apr-2006 22:45:10).

The meteorological data consists of air temperature, humidity, light, atmospheric pressure, wind speed and direction and maximum wind gust and rain. The rain values increase to 50 mm then restart at 0. Spikes introduced to the atmospheric pressure data by the uwyLogger program were removed.

The thermosalinograph (TSG) data consists of water temperature and water salinity. The thermosalinograph salinity data can be calibrated against CTD data (Sea Bird conductivity, temperature and depth sensor) by running the water from the thermosalinograph through the CTD in the wetlab. Data from the CTD is recorded for about 30 minutes; data from the TSG is continuously logged while at sea. The TSG data was then compared to the processed CTD data. This process was undertaken twice on the voyage, Pamela Brodie will have details of the off-sets. Data prior to 08:49 12-Apr-2006 were rejected as the pumps were off. The data was rejected between 13-Apr-2006 08:30 - 13-Apr-2006 15:55 and 26-Apr-2006 00:11 - 26-Apr-2006 05:07 as the water flow to the instrument was off. Data after 30-Apr-2006 21:36 were rejected when the pumps were turned off at the end of voyage.

The light data (PAR) was flagged as suspect. The data recorded anomalous night time readings, probably due to a problem with the sensor.

The gps data was recorded from the Seapath MRU unit. There were no problems with the data.

The depth data was repicked using SonarData's echoview software. A problem with times in the files resulted in a gap 27-Apr-2006 21:54 - 28-Apr-2006 03:53.

## 4. Other

## Processing Notes

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

### 5. References

Pender, L., 2000: Data Quality Control Flags. [http://www.csiro.marine.au/datacentre/ext\\_docs/DataQualityControlFlags.pdf](http://www.csiro.marine.au/datacentre/ext_docs/DataQualityControlFlags.pdf)

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