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## SS 4/2005

10:00 am 22-Mar-2005 Weipa - 10:00 am 13-Apr-2005 Darwin

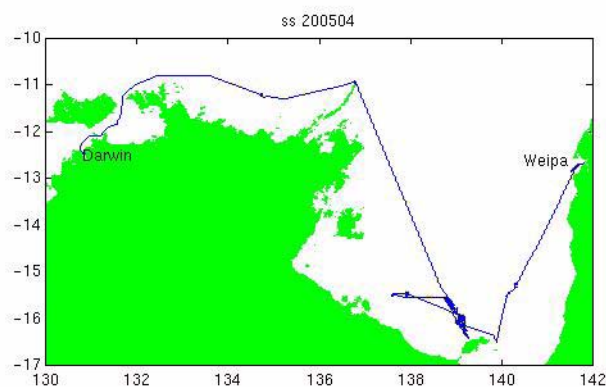
*(Local times)*

*Data processing completed by*  
**Bernadette Heaney, May 2005**

*Wind Speed and Direction re-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 4/2005.



## Processing Notes

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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

“Gulf of Carpentaria submerged reefs and benthic habitats”

### 2.1 Principal Investigators

Dr Peter T Harris

Geoscience Australia

## 3. Processing Notes

### 3.1 Background Information

A combined underway file for the entire voyage, consisting of 10 second values of position, depth, meteorological and thermosalinograph variables was remade on 20 April 2005 - by reading data from hourly files returned from the voyage and modified. (Time range 00:30:10 23-Mar-2005 - 23:25:10 12-Apr-2005).

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. Interference from the sub-bottom profiler resulted in “lost bottom” alarms and frequent “spikes” of about 5 metres in the recorded depth data. Very bad instances were “repicked” using echoview software.

## Processing Notes

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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 program had not been correcting the wind speed and wind direction data for ships motion. The wind speed and wind direction data were rechecked 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. Hiski Kippo refined and tested the method for comparing CTD salinity and TSG salinity values. An offset of -0.04 was added to the salinity data. The following gaps occurred in the data set:

00:20 27-Mar-2005 - 16:20 27-Mar-2005 pump had been off

00:46 02-Apr-2005 - 04:56 02-Apr-2005 No water flow had been observed; and cleaning

02:40 03-Apr-2005 - 06:42 03-Apr-2005 Logging was stopped while the instrument was being cleaned

The gps data from the Seapath MRU unit gave no problems.

## 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.

## Processing Notes

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### 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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