Processing Notes

SS 8/2006

19-August-2006 Suva- 10-September-2006 Noumea

(Local times)

Data processing completed by
Bernadette Heaney, November 2006

1. Summary

These notes relate to the production of quality controlled (QC-ed), position, meterological, thermosalinograph and depth data from RV Southern Surveyor voyage 8/2006.

2. Voyage details

"Hot Subduction - recycling of oceanic crust in a dynamic W Pacific setting. Part 2."

2.1 Principal Investigator

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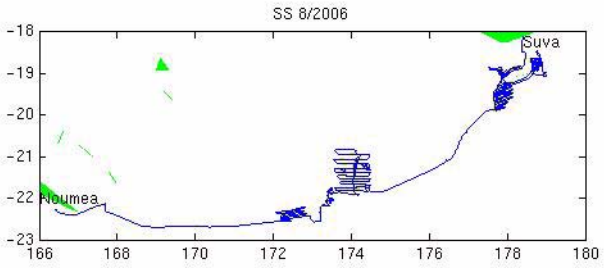

3. Processing Notes

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. Digital depth data can be repicked using SonarData's Echoview 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).

A combined underway file for the entire voyage, consisting of 10 second values of position, depth, meterological and thermosalinograph variables was remade on 27-Sep-2006 - by reading data from hourly files returned from the voyage. (Time range 19-Aug-2006 00:43 - 10-Sep-2006 20:47).

The meteorological data consists of air temperature, humidity, light, atmospheric pressure, wind speed and direction and maximum wind gust. The light data (PAR) was flagged as suspect. The data recorded anomalous night time readings, probably due to a problem with the sensor.

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 by Bob Beattie during the voyage.

The gps data was recorded from the Seapath MRU unit.

4. Other

The navigation, meteorological, thermosalinograph and depth data will be entered into the data wharehouse. Position, meteorological and thermosalinograph 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

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