**AX180309 CRUISE REPORT**

**Rider:** Walter REYNOSO-PERALTA

**Introduction**

The AX180309 was carried out during underway between PUNTA ARENAS- CHILE and CAPE TOWN- SOUTH AFRICA on board the R/V ROGER REVELLE from 27FEB2009 to 14MAR2009.

**A. XBT**

A total of 177 eXpendable BathyThermographs were deployed along track according to the specifications of the Cruise Plan, which 8 were dropped in Intermediate Density mode once R/V REVELLE got waters as deep as 200 m in the south of Islas Malvinas and longitude 58oS, 31 probes where dropped in High Density mode from 58oW and 45oW, 108 in Intermediate Density mode between 45oW and 10oE, and 30 in High Density mode between 10oE and waters as deep as 200 m toward South Africa shore.

SEAS2000 system was used during the cruise. The ship’s GPS supplied positioning and navigation data to the SEAS2K.

**B. Problems**

Primary A-L was used till 3MAR, it presented communication problems with MK21/USB, and it was replaced by the secondary A-L. The Secondary A-L came with pin #3 out of service. Even when pins were lubricated regularly, some of them retracted slowly and some time not completely. Spikes appeared in some drops, it might have been due to the presence of water in the pin controller box as the specialists inferred.

Auto-launchers were shifted again and after reset all SEAS2K system twice auto-launcher got in service once more. Retract and expand pins problems happened mainly with pins #2, #3 and #4 randomly. Pins functionality by mean of periodically spray lubrication was improved.

**C. Recommendations**

Since auto-launchers were used under hard weather conditions and heavy state of the sea, a general review of both A-L is highly recommended, as well as a verification of the T&T System and Trimble GPS is suggested.

**D. Other narrative**

The 7 boxes with the instruments and hardware, and 1 (one) XBT probes box were disembarked and stored at the University of Cape Town.

All along the cruise the Master, Chief Mate, Officers, crew members and scientist party were extremely helpful and cooperative.

**E. Additional equipment, tools, supplies needed.**

It is needed to put back 1 duct tape, 6 large hose-clamps, 4 medium hose-clamps, 8 AA batteries, plastic straps, 1 vinyl electrical tape, 2 lube spry (WD-40) and a new cover for auto-launcher. Also is needed to put back accessories of the electric drill, which did not come with such electric tool.

**F. GTS transmission**

There was not automatic transmission of .BIN files due to failures in the connectivity of transceiver. Data were transmitted manually via email using internet connection available onboard R/V REVELLE.

**G. Drifters deployed.**

NONE

**H. Profiling floats deployed:**

NONE.