

## SOOP Report for 2009

(Australia)

a. Programme description:			
Line	Agency	Sampling programme and target mode (if applicable)	No. of ships
IX01	ABOM	FRX+	7
IX12	ABOM	FRX	5
PX11/IX22	ABOM	FRX	3
PX02	ABOM	FRX	2
IX28	CMAR	HDX, SST/SSS, pCO <sub>2</sub> , TCO <sub>2</sub> , alkalinity, pigments, fluorescence, macronutrients	1
PX30	CMAR	HDX	2
PX34	CMAR	HDX	2
	RAN	XBT for Operational requirements and or hydrographical surveying	10 / 6

b. Data management		
Agency	No. of JJVV messages on the GTS in 2009	Location of delayed-mode data
ABOM	2150	US NODC
CMAR	981	US NODC
RAN	286	US NODC

**c. Major challenges and difficulties:**

The transient nature of the shipping industry, particularly on IX12 and IX01, resulted in a reduced number of transects. The use of non-English speaking crews limits recruitment opportunities.

As always, ships are a challenge, particularly on PX34 where the company running the ships that travel Wellington to Sydney are not generally cooperative. We have therefore been forced to use the sub-optimal route of Auckland-Sydney on several occasions and even use our research ship, Southern Surveyor, at one point.

To replace MK12 system on all RAN ships with "DEVIL".

**d. Research / development / testing:**

We have been developing XBT hardware with a wireless connection between the hand-launcher and the acquisition system. Sea trials are planned for the first half of 2010. Once implemented, this will result in improved data quality and quantity, and reduced maintenance costs.

During the Southern Surveyor transit to New Zealand, and her research voyage in the Central Pacific, we took the opportunity to drop XBT coincident with CTDs to test the fall rate coefficients for probes of varying ages. Analysis of these data is underway now and these will significantly help the oceanographic community deal with analysing and correcting the depths of XBT data in the archives.

Fully test and make operational new version of XBT QC system.

**e. Other comments:**

RAN Maritime Order is for all navy ships to use "SHIP" instead of their original call sign. The number of JJVVs sent on the GTS from the RAN is compiled from ISDM reports for those ships that did not comply with the MO.