

SOOP Report for 2009

USA

a. Programme description:			
Line	Agency	Sampling programme and mode (if applicable)	No. of ships
AX07	SOOP SEAS/AOML	HD	3
AX07	SOOP SEAS/AOML	FR	2
AX08	SOOP SEAS/AOML	HD	3
AX08	SOOP SEAS/AOML	FR	3
AX10	SOOP SEAS/AOML	HD	1
AX10	SOOP SEAS/AOML	FR	1
AX18	SOOP SEAS/AOML	HD	2
AX19	SOOP SEAS/AOML	HD	1
AX22	SOOP SEAS/SIO	HD	2
AX25	SOOP SEAS/AOML	HD	1
AX25	SOOP SEAS/AOML	FR	1
AX32	SOOP SEAS/AOML	HD	1
AX32	SOOP SEAS/AOML	FR	1
AX97	SOOP SEAS/AOML	HD	4
IX06	SOOP SEAS/SIO	HD	1
IX12	SOOP SEAS/SIO	HD	1
IX15	SOOP SEAS/SIO	HD	2
IX21	SOOP SEAS/SIO	HD	3
PX05	SOOP SEAS/SIO	HD	2
PX06	SOOP SEAS/SIO	HD	3
PX08	SOOP SEAS/SIO	HD	1
PX08	SOOP SEAS/AOML	FR	2
PX09	SOOP SEAS/SIO	HD	1
PX10	SOOP SEAS/SIO	HD	1
PX10	SOOP SEAS/AOML	FR	2
PX13	SOOP SEAS/SIO	HD	1

PX13	SOOP SEAS/SEAS	FR	2
PX26	SOOP SEAS/AOML	FR	2
PX31	SOOP SEAS/SIO	HD	3
PX31	SOOP SEAS/AOML	FR	1
PX37	SOOP SEAS/SIO	HD	2
PX37	SOOP SEAS/AOML	FR	2
PX38	SOOP SEAS/SIO	HD	2
PX44	SOOP SEAS/SIO	HD	1
PX44	SOOP SEAS/AOML	FR	2
PX83	SOOP SEAS/AOML	FR	1

b. Data management

Agency	No. of JJVV messages on the GTS in 2009	Location of delayed-mode data
NOAA / AOML - SEAS	6757	NODC / AOML / SIO / CSIRO
SIO - SEAS	6476	NODC / AOML / SIO / CSIRO

c. Major challenges and difficulties:

- A real time transmission and quality control procedure for the thermosalinograph (TSG) data collected on board the cargo ships is fully implemented. Delayed time quality control procedures including buddy check and visual quality control are under development.
- Transect AX18 (Buenos Aires to Cape Town) continues to be a serious challenge as it is very difficult to find ships doing this route. No AX18 transect was carried during 2009. An alternate route between Cape Town and Santos (AX17) is being done when ships are available.
- The Reykjafoss was recruited as a replacement for Skogafoss. During 2009 54 expendable bathythermograph (XBT) profiles were obtained from this ship. Real-time data transmissions as well as the implementation of high and low density XBT regular sampling, atmospheric and oceanic carbon dioxide and thermosalinograph observations from this ship are not fully implemented.
- Recruiting ships for high density transect PX50 continues to be a problem.
- Not all data from deployments by international partners are transmitted into the GTS.

d. Research / development / testing:

- Using SEAS 2000 data acquisition software: all SEAS XBT data continue being transmitted from SOO to NOAA in full resolution profiles and all data are placed into the GTS by NOAA.
- Iridium satellite transmission protocols continue being used for real-time transmission of TSG and XBT data collected with SEAS 2000 on the Oleander. Iridium transmissions are also being used for TSG data from the MV Explorer and the MV Barcelona Express, and for HD XBT data transmissions on AX10.
- An extended autolauncher has been developed and tested at AOML allowing for the deployment of several types of probes including Deep Blue, Fast Deep and T5.
- Several test of XBT data transmissions to the GTS using BUFR format were performed during 2009. These tests will continue during 2010 and will include TSG data.

e. Other comments:

- We continue to participate in collaborative programs with other institutions involved with XBT programs. Our contribution to the collaboration comes in the form of donating probes and supporting equipment when needed in exchange for management and ship greeting services. In particular, during 2009 we shipped 324 probes to IRD/Noumea, 540 probes to IRD/Brest, 324 probes to Brazil, and 648 probes to Australia.
- XBT transects were re-evaluated following international and regional scientific panel recommendations, discussed during the OceanObs09 meeting held in Venice in September 2009.