

## SOOP Report for 2013

## USA

a. Programme description:			
Line	Agency	Sampling programme and mode (if applicable)	No. of ships
AX01	SOOP AOML <sup>1</sup> / IRD <sup>2</sup>	High Density (HD)	1
AX02	SOOP AOML / IRD	HD	1
AX07	SOOP AOML	HD	4
AX08	SOOP AOML	HD	2
AX10	SOOP AOML	HD	1
AX18	SOOP AOML	HD	3
AX20	SOOP AOML / IRD	HD	1
AX22	SOOP AOML / SIO <sup>3</sup>	HD	1
AX25	SOOP AOML / UCT <sup>4</sup>	HD	1
AX32	WHOI <sup>5</sup> / NMFS <sup>6</sup>	HD	1
AX97	SOOP AOML / FURG <sup>7</sup>	HD	5
IX01	SOOP AOML / BOM <sup>8</sup>	Frequently Repeated (FR)	1
IX12	SOOP AOML / BOM	FR	4
IX15	SOOP AOML / SIO	HD	3
IX21	SOOP AOML / SIO	HD	3
IX28	SOOP AOML / CSIRO <sup>9</sup>	HD	1
MX01	SOOP AOML / ENEA <sup>10</sup>	HD	1
MX02	SOOP AOML / ENEA	HD	1
MX04	SOOP AOML / ENEA	HD	1
PX05	SOOP AOML / SIO	HD	1
PX06	SOOP AOML / SIO	HD	3
PX09	SOOP AOML / SIO	HD	2
PX31	SOOP AOML / SIO	HD	2
PX37	SOOP AOML / SIO	HD	1
PX38	SOOP AOML / SIO	HD	1
PX40	SOOP AOML / SIO	HD	1

<b>b. Data management</b>		
<b>Agency</b>	<b>No. of JJVV messages on the GTS in 2013</b>	<b>Location of delayed-mode data</b>
NOAA / AOML and Partners	7709	NODC / AOML / SIO / CSIRO
SIO / AOML	4420	NODC / AOML / SIO / CSIRO

**Agency:**

1. AOML: Atlantic Oceanographic and Meteorological Laboratory – AOML
2. IRD: Institute of Research for Development, France
3. SIO: Scripps Institution of Oceanography
4. UCT: University of Cape Town, South Africa
5. WHOI: Woods Hole Oceanographic Institution
6. NMFS: National Marine Fisheries Service - NOAA
7. FURG: Federal University of Rio Grande, Brazil
8. BOM: Bureau of Meteorology, Australia
9. CSIRO: Commonwealth Scientific and Industrial Research Organisation, Australia
10. ENEA: National Agency for new Technologies, Energy and Sustainable Economic Development, Italy

<b>c. Major challenges and difficulties:</b>
<ul style="list-style-type: none"> <li>• Budget constrains in the US.</li> <li>• Limited budget available to contribute with probes and equipment to international collaborators.</li> <li>• Transect AX18 (Buenos Aires to Cape Town) continues to be a challenge as it is difficult to find and recruit ships doing this route.</li> <li>• Communicate to the scientific and operational communities the new goals of the XBT network given the full implementation of Argo.</li> </ul>

<b>d. Research / development / testing:</b>

- 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.
- AOML/SOOP continues to develop and upgrade AMVERSEAS for the recording of XBT and Thermosalinograph (TSG) observations.
- XBT data transmissions to the GTS using BUFR format are performed regularly, along with ASCII BATHY bulletins.
- SOOP continues to support the deployment of other observational platforms such as drifters and Argo floats.
- AOML/SOOP continues to work in other XBT related projects including experiments for the study of the XBT fall rate equation issue.
- AOML/SOOP is working in collaboration with international partners in the maintenance of XBT high density transects in the Atlantic Ocean (AX01, AX02, and AX20), in the Mediterranean Sea (MX01, MX02, and MX04), and in the Pacific Ocean (PX40).
- The status of implementation of the XBT global network as well as the issues of the SOOP were presented and discussed during the SOT-7 meeting, held in April 2013 in Victoria, Canada.
- Collaboration between NOAA and Sippican continues for the development of a new climate-quality XBT probe with improved temperature sensor and pressure switches to reduce biases. Tests were carried out during two NOAA research cruises in the Tropical Atlantic and the North Atlantic. Analysis of these observations is being carried out in collaboration with Sippican.

**e. Other comments:**

- NOAA / AOML continues to participate in collaborative programs with other institutions involved with XBT deployments. In particular, during 2013 AOML continued its collaboration in support of AX97 (Brazil), IX01, IX12, IX28 (BOM/Australia), AX01, AX02, AX20 (IRD/France), and PX40 (Tohoku University/Japan).
- Real time transmission and quality control procedures for the TSG data continue in operation. The TSG data set, including quality control flags, is being distributed through NOAA/NODC and GOSUD.