

## VOS and VOSClm Report for 2008

## (EUMETNET)

a. Programme description:		
Category	No. of ships at 31 Dec 2008	Comments
<i>Selected</i>	5	Continuation of the installation of ship borne AWS funded by the E-SURFMAR programme. No new ship equipped in 2008. Installations should start again in 2009.
<i>Supplementary</i>	Nil	-
<i>Auxiliary</i>	Nil	-
<i>Other (specify)</i>	4	Baros AWS funded by E-SURFMAR. Installed on board E-ASAP ships, they provide hourly air pressure data only.
<b>Total Eumetnet VOS Fleet</b>	<b>9</b>	

b. VOS:	
<i>Number of VOS vessels recruited in 2008</i>	4
<i>Number of VOS vessels de-recruited in 2008</i>	0
<i>Target number of ships in the Eumetnet VOS Fleet</i>	45

c. VOSClm:	
<i>Number of VOSClm vessels at 31 December 2008</i>	0
<i>Number of VOSClm vessels recruited in 2008</i>	0
<i>Number of VOSClm de-recruitments in 2008</i>	0
<i>Number of VOSClm recruitments planned for 2009</i>	5
<i>Target number of ships to participate in VOSClm</i>	~12

d. Automated observing systems:				
Type	No. of ships at 31 Dec 2008	Manual Input Yes / No	Method of Comms	2009 Planned installations
BATOS	5	Yes	Inmarsat Data Reporting	3
BAROS	4	No	Iridium SBD	10

e. Data management:	
Total number of ship observations (BBXX) distributed on the GTS in 2008 (excluding moored buoy Ship coded observations)	27,410
Frequency of VOS data submitted for the GCC in 2008	Unknown - Normally done through the EUMETNET member who installed the station

f. Electronic logbooks:		
Software & version	No. of ships at 31 Dec 2008	Implementation plans
BATOS	5	BATOS AWS records all the observations: automatic measurements of physical parameters as well as visual observations when entered by mariners

**g. Major challenges and difficulties:**

The funding of ship borne AWS is only a part of the E-SURFMAR duties. E-SURFMAR is actually coordinating the activities of about 50% of the VOS in the world and EUMETNET ships report more than 58% of the whole observations. During the 2002-2008 period, the number of air pressure observations reported by European AWS stations passed from 380 to 1130 per day. This of pressure observations reported by manned VOS increased from 790 to 850 per day. However, it must be noticed that the number of observations performed into the EUCOS area of interest decreased from 400 to 290 during the same period.

One of the main objective of E-SURFMAR – as for the other components of EUCOS – consists in optimising the ground observing system to improve short range forecasts over Europe. The sea level pressure is a key parameter for E-SURFMAR. It appears the quality of pressure measurements reported by conventional VOS is worse than this of AWS in average. This problem must be carefully considered and reduced as much as possible.

**h. Research / development / testing:**

The deployment of Baros ship borne AWS started in 2007. Easy to install, it only reports the sea level pressure every hour through Iridium SBD which appears a cost effective communication system. Twelve units were built in 2008. Four of them were installed aboard E-ASAP ships.

E-SURFMAR activities also includes: the development and use of data compression techniques to save communication costs; the use of normalized GTS identifiers (MASK) to facilitate the monitoring and the management of the E-SURFMAR fleets; the development and the use of a metadata database available online; the development and the use of day-to-day monitoring tools.

**i. Other comments:**

Nil