

VOS and VOSClm Report for 2009

(EUMETNET)

a. Programme description:		
Category	No. of ships at 31 Dec 2009	Comments
<i>Selected</i>	6	Continuation of the installation of BATOS AWS stations funded by the E-SURFMAR programme. One new ship equipped in 2009.
<i>Supplementary</i>	9	BAROS AWS funded by E-SURFMAR. Primarily Installed on board E-ASAP ships, they provide hourly air pressure data only. One ship is outside the E-ASAP fleet.
<i>Auxiliary</i>	0	-
<i>Other (specify)</i>	0	-
Total National VOS Fleet	15	

b. VOS:	
<i>Number of VOS vessels recruited in 2009</i>	6
<i>Number of VOS vessels de-recruited in 2009</i>	0
<i>Target number of ships in the national VOS Fleet</i>	45

c. VOSClm:	
<i>Number of VOSClm vessels at 31 December 2009</i>	0
<i>Number of VOSClm vessels recruited in 2009</i>	0
<i>Number of VOSClm de-recruitments in 2009</i>	0
<i>Number of VOSClm recruitments planned for 2010</i>	6
<i>Target number of ships to participate in VOSClm</i>	12

g. Major challenges and difficulties:

The funding of ship borne AWS presented in the tables here above (E-SURFMAR fleet), is only a part of the programme duties. E-SURFMAR is actually coordinating the activities of about 50% of the VOS in the world and EUMETNET ships report more than 56% of the whole observations. During the 2002-2009 period, the number of air pressure observations reported by European AWS stations passed from 380 to more than 1200 per day. This of pressure observations reported by manned VOS remained more or less stable (790 per day) but the number of observations performed into the EUCOS area of interest decreased from 400 to 300 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. Out of the nine BAROS installed before the end of 2009, eight were 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 E-SURFMAR database contains all Pub 47 metadata made available by VOS operators in the world (not only European ones). Every day, the metadata are extracted from the database and made available on a FTP site (CSV and XML formats);
- the development and use of day-to-day monitoring tools.

i. Other comments:

Nil