CGMS-XXXIII
WMO WP-13
Prepared by WMO
Agenda item: I/3.2

SHIPS, INCLUDING ASAP
ASAP STATUS REPORT

(Submitted by WMO)

Summary and purpose of document

The purpose of this document is to inform CGMS Members of the current status of the ASAP Programme

ACTION PROPOSED

CGMS Members are invited to note and comment on the report as appropriate.

ANNUAL REPORT 2004

1. The ASAP Panel is involved in ASAP radiosounding implementation aboard ships and, when possible, their coordination on a regional level (i.e., EUCOS) as well as on a global WMO level.

2. To monitor the ASAP overall performance is a very important task for NMSs and WMO. Soundings remain a difficult task in difficult conditions; on ships with negative influence of different factors on general performance. For many years ASAP performance is controlled at different steps (launching, satellite transmission …) by NMSs and International organizations like COSNA or the WMO ASAP Panel and nowadays by EUCOS.

3. The operational statistics of radiosoundings performed in 2004 within the framework of the Automated Shipboard Aerological Programme (ASAP) shows that the number of corrupted call-signs has been smaller in 2004 compared to 2003. The number of reports at 500 hPa level in 2004 increased in 824 for temperature and 449 for wind compared to the previous year but decreased in 321 for temperature and 440 for wind at 20 hPa. The quality of the data has continued to be good. Vertical statistics for temperature and wind for the period January to December 2004 show a general good performance of the ASAP units.

4. The main objective for 2003–2006 is to integrate the existing 13 National units with 5 jointly new procured units to reach a total of 18 units by 2006. The total amount of soundings was about 6,300 per year when fully implemented. The complete integration was expected to be achieved by the end of 2006.

5. In the past few years, frequent changes in routes of ASAP units have been noted. Consequently, NMSs have had to find new maritime companies and new routes. However, ASAP routes are not selected without any scientific considerations. In fact, EUCOS in Europe and WMO recommend new ASAP units to be enlisted on specific maritime routes selected from scientific studies or practical considerations of forecasters.

6. Figure 1 shows the routes of all ASAP ships in the EUCOS area North Atlantic and Mediterranean. This figure shows the received TEMP messages of three months.

7. The ASAP Panel (ASAPP) consists of a group of national operators along with ECMWF, EUMETSAT and eventually with invited manufacturers. The purpose of the EUMETNET ASAP project is to combine the European ASAP operations under a central management. This shall be achieved by integrating national ASAP systems as well as procuring new systems on behalf of EUMETNET. The overall target is to receive 6,300 soundings per year from 18 ships as of 2006.

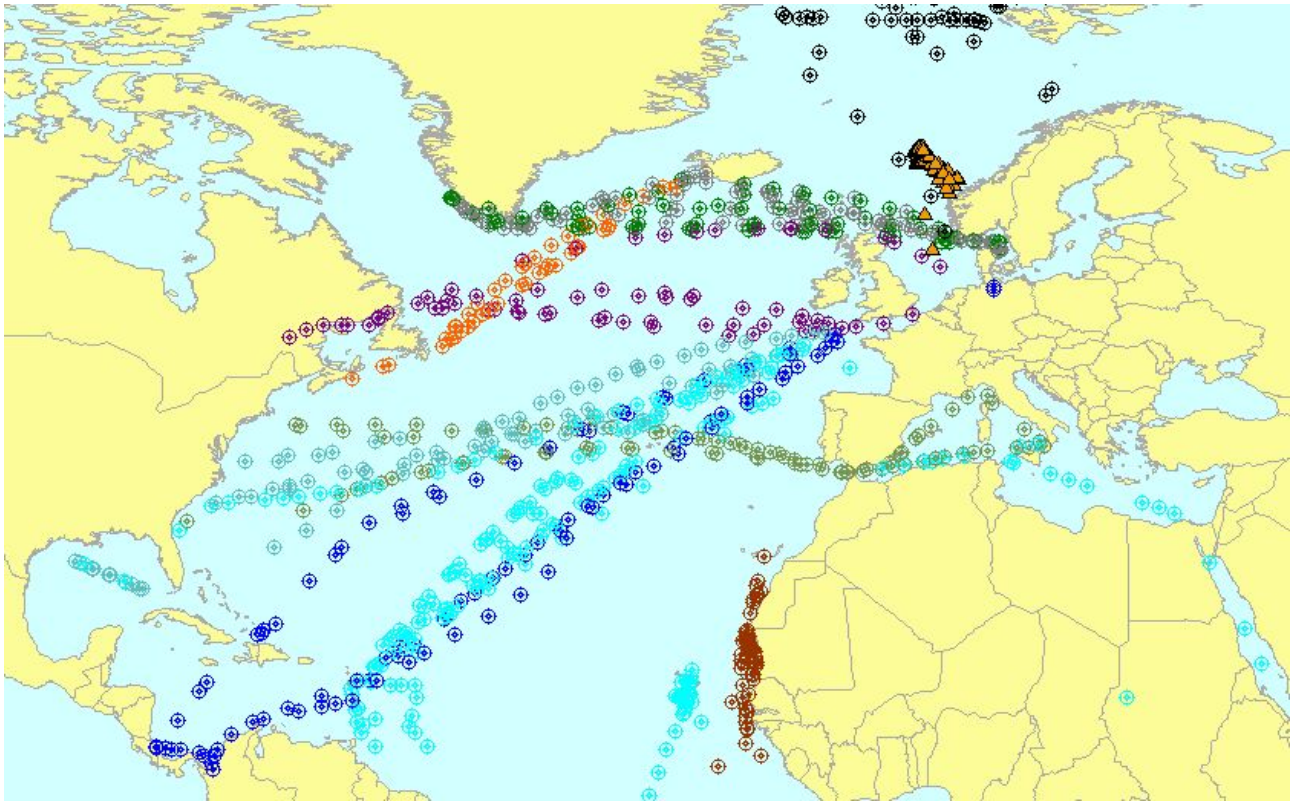

Fig. 1: ASAP routes in 2004

8. The choice of sondes is an important part of ASAP radiosounding cost and contributes greatly to quality. Many countries used Vaisala GPS-2D sondes. However, these sondes will no longer be proposed by the manufacturer within a few months. LORAN -C sondes represent a rather cheap alternative to GPS sondes; but its future is not clearly known. However, in the future there is a good possibility that the cost of GPS-3D sondes will decrease. At the present time, this tendency is being observed with some new sonde manufacturers. Such sondes are now proposed among others by Sippican, Vaisala and Modem. The French ASAP lines switched to Modem sondes on 3 new ASAP ships. In the oceanic zones where land areas are sparse – central Atlantic and Pacific, Southern Hemisphere – one can only use a satellite-based navigation service like GPS for wind component measurements.

9. ASAP operational status has undergone technical and operating changes since a few years mainly under EUMETNET / EUCOS organization. Moreover, due to the increase of satellite and AMDAR data over oceans, to precise the future role of the ASAP programme becomes difficult in this context. The tendency being to encourage developments of new ASAP units in sensible areas where storms take their origins.

10. However, it seems that the number of ASAP units remain the same.

11. Despite these considerations, in regard to other techniques, an important objective for the ASAP Panel is still to increase the number of upper-air data in sparse ocean areas.
