WORLD METEOROLOGICAL ORGANIZATION

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JOINT MEETING:
CBS EXPERT TEAM ON AIRCRAFT BASED OBSERVATIONS
(Third Session)
AND
AMDAR PANEL
(Fourteenth Session)

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AMDAR PROGRAMME STATUS

Status Reports on National and Regional Programmes

Established AMDAR Programmes

France

(Submitted by France)

SUMMARY AND PURPOSE OF DOCUMENT

This document provides information on the activities and plans for the French AMDAR Programme.

ACTION PROPOSED

1. The Panel is invited to note the information contained in the document.

FRENCH AMDAR PROGRAMME

The French AMDAR Programme has the following main objectives:

1. Optimisation of AMDAR data for national forecasting and meso scale models.
2. Assessment and validation of AMDAR data produced by E-AMDAR for use by the regional model.
3. Development of the AMDAR Programme over French overseas territories for global use.
4. Preparation and real time delivery of atmospheric chemical data for use in air quality models.

To progress these objectives, Météo France is working cooperatively within the E-AMDAR organization to:

- maintain existing contracts with Airline companies;
- make use of technical solutions already developed and implemented; and,
- facilitate the transfer from research to operations for the new measurements.

METEO FRANCE AMDAR ACTIVITIES

Contribution to the E-AMDAR program

Météo France contributes financially and technically to the E-AMDAR program with the aim of providing an AMDAR vertical profile data coverage of 250 km (spatially) and 3 hourly (temporally).

In order for Météo France make better and wider use of AMDAR data by the forecasters, it believes the frequency should be enhanced. Therefore, a MoU has been signed between Météo France and E-AMDAR, to increase the temporal resultion of AMDAR profiles at a selection of airports in France.

Météo France contributes to the E-AMDAR Programme by facilitating communications and negotiations with Air France in relation to issues such as data dissemination on the GTS and the implementation of AMDAR on aircraft operating on long-haul flights. In addition to working towards the development of AMDAR programmes in cooperation with French overseas territories, Météo France is supporting the development of AMDAR software for B777 fleet which might lead to the production of AMDAR data over the French West Indies, French Guyana and La Reunion.

Contributions to the AMDAR Panel

Météo France contributes financially to the AMDAR Panel Trust Fund.

Implementation of new AMDAR data

Since September 2008, sub-3-hourly AMDAR profiles have been produced for E-AMDAR by Air France, EasyJet and Lufthansa aircraft, from a selection of Airports in France: Paris, Marseille, Nice, Lyon, Strasbourg, Mulhouse and Toulouse.

Météo France will be a contributing partner with the Bureau of Meteorology in the implementation of AMDAR software on an Air Vanuatu B737-800 aircraft, which will produce data from flights over the new Caledonian area. It is expected that this programme will commencee at the end of 2011 and be made possible (financially and practically) through an MoU between Meteo-France and E-AMDAR.

No progress was achieved over La Reunion in the Indian Ocean and Polynesia in the Pacific Ocean.

Humidity sensor

Meteo France participates in the design of a future European humidity network via the Working Group on E-AMDAR Humidity Business Case for EUMETNET

IAGOS

Météo France is involved in the IAGOS projects (IAGOS DS and IAGOS ERI) for the design and conception of the real time transmission of atmospheric chemical data (Real Time Transmission Unit) and also facilitates coordination on IAGOS matters with the AMDAR Panel.

EUMETNET agreed to cooperate with IAGOS-ERI in the real-time data transmission (EUMETNET general assembly, May 2011). The cooperation allows the use of E-ADAS (E-AMDAR Data Acquisition System), in an arrangement whereby E-ADAS will receive the real-time IAGOS reports, encode them in BUFR format and transmit them on the GTS (WIS real-time network).

In preparation for transmission tests, BUFR files were defined and distributed to CNRS/LA, Atmosphere (the company tasked to develop the Real Time Transmission Unit), E-ADAS, and Météo-France Operations.

Tests have commenced at Météo-France Operation Services for emission/reception/archive of IAGOS reports in BUFR format.

FUTURE PLANS

It is expected that Météo France will continued to contribute to the AMDAR Programme through its continued cooperation with and assistance to E-AMDAR and to the AMDAR Panel.

Météo France also expects to continue its role and participation within the IAGOS projects.
