

WORLD METEOROLOGICAL ORGANIZATION

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EXECUTIVE COUNCIL WORKING GROUP ON

(28.XI.2007)

THE WMO INTEGRATED GLOBAL OBSERVING SYSTEM (WIGOS)
AND

THE WMO INFORMATION SYSTEM (WIS)

ITEM: 3.4

FIRST SESSION

GENEVA, 4– 7 DECEMBER 2007

**DEVELOPMENT OF AN OVER-ARCHING
WIGOS DEVELOPMENT AND IMPLEMENTATION PLAN**

Status of Integration of the AMDAR into the WIGOS

(Submitted by the Secretariat)

Summary and Purpose of Document

This document presents the status of integration of the AMDAR into the WIGOS.

ACTION PROPOSED

The Working Group is invited to note the information presented in the document while elaborating a WIGOS Development and Implementation Plan.

- References:**
1. Final Report of the 10th meeting of the AMDAR Panel (Langen, Germany, 13-16 November 2007)
 2. Final Report of the 7th session of CBS Management Group (Geneva, 18-20 June 2007)

DISCUSSION

1. The AMDAR Panel at its 10th meeting fully supported the further integration of the AMDAR programme into the WMO WIGOS, considering the Final Report of the seventh session of CBS Management Group, the need to see AMDAR as a complementary data source to existing surface and space based observing programmes, and the need for increased efforts to include water vapour sensors to provide a full set of parameters for both profile data and en-route data sets.
2. The Panel further endorsed the transfer of the AMDAR Technical Coordinator function into a WMO staff position, providing the funding from the AMDAR Trust Fund at least for the initial biennium of 2008/2009, with a high probability to maintain that funding for the full 4-year budget cycle.
3. The Panel Management Group is proposing to establish an Ad-hoc Steering Group composed of the AMDAR Panel Chair, the Panel Technical Coordinator, a US representative, and the CBS Rapporteur on AMDAR activities with the task to facilitate the implementation of a Project Plan during the 2008/2009 time frame, to enhance delivery of aeronautical data from AMDAR platforms for to user communities. This Steering Group will also address the special nature of the AMDAR data being owned by the aviation industry partners, and the planned addition of humidity sensors to selected aircraft. The Project plan will include the following essential elements:
 - Design a business case in cooperation with the aviation industry for the inclusion of humidity sensors (after successful completion of tests) with a generic software and hardware for all major aircraft types, but special emphasis on short-haul and commuter planes.
 - Contacts at the working level have been established with Airbus and Boeing, but it is seen as essential to involve also other major manufacturers such as Bombardier, Saab or Embraer. In the specifications for the generic software solution, parameters such as turbulence and icing will be incorporated.
 - This business case will compare the cost of the generic software and hardware development, certification for sensor installation and the cost of installing, maintaining and calibrating the sensors to the cost of conventional profile data, the impact of a widespread availability of such profile data on VSRF and Nowcasting, and the potential savings by optimizing the ground-based upper-air network.
4. Considering that the project depends on the full cooperation of the aviation industry, it is difficult to define firm timelines. It is expected, however, that first tangible results should become available by the end of 2008/beginning of 2009.
5. A further aspect of the business case will include expected benefits of AMDAR data for aviation met service delivery in the light of new ATM concepts such as NextGen and SESAR.
6. The ICAO Assembly resolution A 36/17 of Sept. 2007 is requesting an aggressive approach to reduce aviation emissions by new operational measures, to which aviation meteorology will contribute in a significant way. AMDAR data are expected to form an essential input to any improved weather service delivery to aviation.
7. Further steps towards a full integration will be developed by the Ad-Hoc Steering Group based on the results of the business case and further agreements with the aviation industry.

8. The transfer of the AMDAR Technical Coordinator position to the WMO secretariat will ensure close coordination with the relevant new and dedicated WMO secretariat departments.
 9. The Panel reminds the EC Working Group that a long-term funding of the Technical Coordinator position or an equivalent staff position needs to be foreseen in the following budget cycle for 2012-2015.
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