

WMO AMDAR Panel Workshop on Aircraft Observing System Data Management

Aims and Objectives

(Updated, 22 May 2012)

The Workshop on Aircraft Observing System Data Management shall

- (a) Review, propose and report on the current data management standards and practices employed for the WMO Aircraft Observing System, taking into account:
 - i. National aspects;
 - ii. Global aspects;
 - iii. AMDAR data;
 - iv. ICAO-generated data;
- (b) Devise and recommend a national and global framework for the reporting, monitoring and management of Aircraft Observing System data; (AMDAR and ICAO) taking into account:
 - i. Data archival;
 - ii. Data access and display (data and monitoring diagnostics);
 - iii. WIS structure and requirements.
- (c) Data Quality Assessment:
 - i. Review and make recommendations on the requirements for Aircraft Observing System Data Quality Assessment (taking into account the status of the activities concerning the WIGIS AMDAR Pilot Project and the Quality Management Framework).
- (d) Metadata:
 - i. Devise and recommend a national and global framework for the reporting and management of Aircraft Observing System metadata; (AMDAR and ICAO), taking into account WIS structure and requirements;
 - ii. Review and make recommendations on the requirements for Aircraft Observing System metadata (taking into account the status of the activities concerning the WIGOS AMDAR Pilot Project and the Inter-programme on Metadata and Data Interoperability);
- (e) Propose ways of integration into the governance for the AMDAR Programme in line with item (a) above;
- (f) Consider and recommend Data Policy aspects for Aircraft Observing System data;
- (g) Provide advice on the implementation of Aircraft Data Management into the WIGOS concept;
- (h) Identify and recommend on the establishment of (a) Lead Centre(s) and Participating Centres for:
 - i. Data management and archival;
 - ii. Metadata management;
 - iii. Data quality monitoring;
- (i) Make an assessment and report on the current state of WMO guidance material in relation to Aircraft Observing System data management and determine requirements for improvement and update;

- (j) Prepare a report to be submitted to the Chairperson of OPAG-ISS on the progress made on Aircraft meta-data.

Deliverables (Expected Results) of the Workshop on AMDAR Data Management

1. Final Report reflecting the discussions, decisions, proposals and recommendations as the result of the Workshop;
2. Draft recommendations to be submitted by the AMDAR Panel to CBS;
3. Draft covering documentation to the recommendations for inclusion into the WMO Regulatory Material.

Proposed Workshop Participants (Provisional)

Brad Ballish	NOAA(QA, modelling)	USA
Jitze van der Meulen	E-AMDAR QEvC (QA)	The Netherlands
Stewart Taylor	E-AMDAR TC (Metadata, QC)	UK
Drasko Vasiljevic	ECMWF (QC, global modelling)	UK
Gilles Verner	CMC (Data Monitoring, modelling)	Canada
Xiaohua Yang	HIRLAM/Harmonie (Local Area Modelling, monitoring)	Denmark
Bill Moninger	NOAA/ESRL/GSD (AMDAR Data Display)	USA
Backshow Berejena	Regional Association I	Zimbabwe
David Thomas/ Steve Foreman	WMO/WIS	Switzerland
Michael Berechree	Bureau of Meteorology (Data Use, Services)	Australia

Workshop Support Dean Lockett (AMDAR Panel TC, WMO Secretariat);

Frank Grooters (Workshop Chairperson)

Venue Geneva (WMO Secretariat)

Dates 5 to 8 June 2012

Basic Reference Material

- Aircraft Meteorological Data Relay (AMDAR) Reference Manual, WMO-No. 958 (2003)
- Manual on the Global Data-Processing System, WMO-No. 485, VOL. 1 (2010)
- WMO Guide to Meteorological Instruments and Methods of Observation, WMO-No. 8 (2008), Part III

Other references, related to WMO activities on data management, quality assessment and meta data can be found on the following URLs (web links)

- WMO interlinks, *functioning on 2012-02-01*:

Data Management

WWW Data Management

<http://www.wmo.int/pages/prog/www/WDM/wdm.html>

Quality Assessment

Quality Management Framework

http://www.bom.gov.au/wmo/quality_management/index.shtml (restricted access)

currently not available !: <http://www.wmo.int/pages/prog/amp/QMF-Web/home.html>

Final Draft edition of WMO-No.49 - WMO Technical Regulations, Volume IV - Quality Management

currently not available !: http://www.wmo.int/pages/prog/amp/QMF-Web/documents/Tech_Reg_Volume_IV_FinalDraft_March2010.pdf

The Global Data-Processing and Forecasting System

<http://www.wmo.int/pages/prog/www/DPS/gdps.html>

WWW Monitoring

http://www.wmo.int/pages/prog/www/WDM/wdm_monitoring.html

Data Quality monitoring

<http://www.wmo.int/pages/prog/www/DPS/Monitoring-home/mon-index.htm>

with links to Participating Centres, Lead Centre Monitoring, Procedures and Formats, Report Types and Focal Points:

- Participating Centres:
<http://www.wmo.int/pages/prog/www/DPS/Monitoring-home/mon-participating-centres.htm>
- Lead Centre Monitoring:
<http://www.wmo.int/pages/prog/www/DPS/Monitoring-home/mon-leadcentre.htm>
- Report Types:
<http://www.wmo.int/pages/prog/www/DPS/Monitoring-home/mon-report-types.htm>

Metadata

Data and metadata representation

http://www.wmo.int/pages/prog/www/WDM/wdm_representation.html

Development of the WMO Core Profile of the ISO Metadata standard

<http://www.wmo.int/pages/prog/www/WDM/Metadata/documents.html>

Regulatory and Authoritative Documents

Aircraft Meteorological Data Relay (AMDAR) Reference Manual, WMO-No. 958, 2003; Par. 5 and App. IV

http://www.wmo.int/amdar/Publications/AMDAR_Reference_Manual_2003.pdf

and other links on the WMO AMDAR website

http://www.wmo.int/amdar/index_en.html

MANUAL ON THE GLOBAL DATA-PROCESSING SYSTEM, WMO-NO. 485, VOL. 1 (2010) ATTACHMENT II.9, PROCEDURES AND FORMATS FOR EXCHANGE OF MONITORING RESULTS

<http://www.wmo.int/pages/prog/www/DPS/Monitoring-home/mon-procedures.htm#Aircraft%20Data>

MANUAL ON THE GLOBAL DATA-PROCESSING SYSTEM, WMO-NO. 485, VOL. 1 (2010) PART III, DATA MANAGEMENT ASPECTS

http://www.wmo.int/pages/prog/www/DPFS/Manual_GDPFS.html

WMO GUIDE TO METEOROLOGICAL INSTRUMENTS AND METHODS OF OBSERVATION, WMO-No. 8 (Seventh edition, 2008), Part III, QUALITY ASSURANCE AND MANAGEMENT OF OBSERVING SYSTEMS

<http://www.wmo.int/pages/prog/www/IMOP/publications/CIMO-Guide/CIMO%20Guide%207th%20Edition,%202008/Part%20III/Part%20III.pdf>

WMO GUIDE TO METEOROLOGICAL INSTRUMENTS AND METHODS OF OBSERVATION, WMO-No. 8 (Seventh edition, 2008), , PART II, OBSERVING SYSTEMS, Chap. 3 Aircraft observations

<http://www.wmo.int/pages/prog/www/IMOP/publications/CIMO-Guide/CIMO%20Guide%207th%20Edition,%202008/Part%20II/Chapter%203.pdf>

Relevant WWW components:

WDM = WMO data management

WWWDM = WWW data management

AMDARDM = AMDAR data management

DPS = Data Processing System