Integration of AMDAR into WIGOS

Project Name:	Integration of AMDAR into WIGOS
Acronym:	WIGOS-PP-AMDAR
Project Type:	Pilot
Project Status:	The WIGOS Pilot Project for AMDAR is currently in the initial stages of collaboration and planning.
Project Overview:	This Project will focus on the practices impacting AMDAR data collection, processing, archiving and dissemination. The standard practices used in observing the atmosphere need to be well documented to ensure sufficient detail accompany the observations so that users can interpret measurements correctly. In addition new methods and procedures will be required in preparation for the deployment of new operational instruments, such WVSSII water vapour sensor.
Project Aims:	Short-term: (1) Development of a standardised BUFR Template for AMDAR; (2) Application of WMO Metadata relevant to AMDAR; (3) Development of a standardised Quality Management Framework for AMDAR data; and (4) Validation and preparation for intercomparison of available Water Vapour sensor performance. Long-term: (5) Update of the AMDAR Reference Manual WMO-No.958; and (6) Development of the framework for generic software specification for AMDAR. *Note: In case of lack of resources provided towards the WIGOS-PP-AMDAR, Project Aims will be prioritized accordingly.*
Partners / Participants:	AMDAR Panel E-AMDAR and USA AMDAR Programmes WMO Technical Commissions
Project Cost:	Estimated costs for meetings, consultants and publication CHF 125K
Funding Source(s):	This project will make optimum use of the expertise available from the AMDAR Panel and its WIGOS partners. Financial support shall be required through the WMO AMDAR Panel Trust Fund and WIGOS-WIS Trust Fund.
Project Timescale:	Will all be done in parallel and completed by December 2009
Deliverables:	(1) Agreed BUFR Template for AMDAR; (2) Published best metadata practice for AMDAR; (3) Published best practice for Quality Management procedures for AMDAR; (4) Published results from the validation of the available Water Vapour sensors; (5) Updated AMDAR Reference Manual WMO-No. 958; and (6) Agreed framework for generic software specification for AMDAR. *Note: In case of lack of resources provided towards the WIGOS-PP-AMDAR, Deliverables will be prioritized accordingly.*
Project Links:	http://www.wmo.int/amdar/
Project Summary:	With the completion of the project aims, AMDAR will be better integrated into WIGOS by adhering to WMO standards for instrumentation, data exchange and for end products.
Date of Last Update:	3/07/2008
Contact Person: **Name:** **Organization:** **Address:** **Telephone:** ***Fax:*** **E-Mail:**	AMDAR Technical Co-ordinator WMO Secretariat 7 bis, Avenue de la Paix CH-1211 GENEVE 2, Switzerland

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Integration of AMDAR into WIGOS – Sub Projects

Sub Project	Objective	Who	Action	Deadline	Cost (CHF)
1.	Development of a BUFR Template for AMDAR	**Dean Lockett** (Jitze v. d. Meulen, Stewart Taylor, Magali Stoll and Dave Helms) in collaboration with the ET-DR&C Validation Centres (to be nominated)	1. Investigate the various versions of BUFR templates for AMDAR and their elements currently in use by national and regional AMDAR Programs. Provide specification to ET DR&C; 2. Develop a standardised BUFR Template for AMDAR that includes all the new extensions supporting parameters for AMDAR; 3. Validation of the AMDAR BUFR Template; and 4. Approval of the AMDAR BUFR Template.	1 & 2. Q3 2008 3. Q4 2008 4. Q1 2009	20K (2008)
2.	Application of WMO Metadata relevant to AMDAR	**(Frank Grooters)** Contractor TBD under the guidance of the AMDAR Panel Chairperson, ad-hoc support from WIS Project Office, IPET-MI	1. Classify components of metadata associated with AMDAR. In particular, identify metadata needed for describing data and products, metadata needed for usage of data and metadata needed for the operation of the AMDAR observing system; 2. Identify metadata for quality control and administration. Also identify relevant policies for the sharing and usage of the metadata, data and products; 3. Describe the metadata utilising WMO profile of ISO 19115 to ensure appropriate compatibility with WIS and WIGOS; and 4. Create examples and best practice guides for inclusion in the AMDAR Reference Manual and relevant CIMO documents.	1. & 2. Q4 2008 3. Q1 2009 4. Q4 2009	20K (2009)
3.	Development standardised procedure for Quality Management of AMDAR data	**Jitze v. d. Meulen** E-AMDAR QEv in coordination with the AMDAR Science Sub Group, other AMDAR Data Monitoring Centres	1. Examine the requirements for Quality Monitoring and Quality Assurance of AMDAR Data; 2. Develop a Quality Framework and procedure in support of high quality AMDAR Data to users; and 3. Identify potential AMDAR archive centres (DCPCs for WIS).	1. Q4 2008 2. Q3 2009 3. Q4 2009	10K (2009)
4.	Validation and preparation for intercomparison of available Water Vapour sensor performance	**Dave Helms** E-AMDAR Programme in coordination with CIMO ET-UASI	1. Perform calibration and flight test and report; and, 2. Organize preparatory meeting to define the rules and procedures for the intercomparison of AMDAR and other upper-air data. 3. Take part in the WMO Radiosonde Intercomparison, China, 2010	1. Q2 2009 2. Q3 2009 3. Q2 2010	40K (2009) 40K (2010)

5.	Update of the AMDAR Reference Manual, WMO-No.958	**(Frank Grooters)** Contractor TBD under the guidance of the AMDAR Science Sub Group, CIMO Rapporteur	1. Review those sections of the AMDAR Reference Manual as identified (ensure the full suite of water vapour sensors and their measurements are included, turbulence and icing and future requirements for AMDAR; 2. Update to both technical and scientific components of the AMDAR Reference Manual and propose changes to the *CIMO Guide*; and 3. Incorporate input from other sub projects. 4. Draft new version of AMDAR Reference Manual	1. Q4 2008 2 & 3. Q3 2009 4. Q4 1010	25K (2009) 25K (2010)
6.	Development of the framework for generic software specification for AMDAR	**(Frank Grooters)** Contractor TBD under the supervision of Stewart Taylor in coordination with AMDAR Panel Technical Sub-Group, Aviation Industry Groups.	1. Review all versions of current software specifications currently in use by operational AMDAR Programs; and 2. Provide framework for the development of the generic software solution for AMDAR.	1. Q1 2009 2. Q4 2009	10K (2009) 20K (2010)

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