

WMO/ICAO Workshop on Future Requirements for Meteorological Aircraft Observations

[Purpose](#)

[Venue & Dates](#)

[Topics](#)

[Outcomes](#)

[Tentative Program](#)

[Day 1](#)

[Day 2](#)

[Participants](#)

Purpose

At the 2014 ICAO Meteorology Divisional Meeting (in part conjointly with the Fifteenth Session of the WMO Commission for Aeronautical Meteorology (CAeM) including Technical Conference), WMO submitted an Information Document entitled: Current status of aircraft-based observations and plans for expansion of the AMDAR programme - IP.21-INF.21¹.

This paper describes the current status of WMO AMDAR observations and their significant positive impact on meteorological applications and, through those applications, to aviation services. It also discusses meteorological data that are currently available and potentially more widely available from ICAO aircraft observations. These meteorological data can be derived from several ICAO sources and systems including automated and special Aircraft Reports (AIREPs) and Automatic Dependent Surveillance (Contract and Broadcast - ADS-C and ADS-B). Currently WMO receives more than 15,000 aircraft-based meteorological observations per day from ICAO aircraft observations and there is an expectation among WMO Members that such data will become more widely and abundantly available in the future. Meteorological services of countries such as The Netherlands and the United Kingdom are currently investigating the potential benefits of winds and temperature via interception of ADS-B information transmitted from aircraft fitted with Mode-S transponders communicating with national Air Traffic Management systems.

The purpose of this workshop is to:

- 1) Present the current status of meteorological aircraft observations, including both the WMO Aircraft Meteorological Data Relay (AMDAR) program and ICAO aircraft observations;
- 2) Present and discuss the potential for and benefits of wider and improved future access to ICAO aircraft observations by World Area Forecast Centers (WAFCs) and WMO Members; and

¹ <http://www.icao.int/Meetings/METDIV14/Information%20Papers/IP.21-INF.21.pdf>

- 3) Initiate high level discussion with ICAO and other stakeholders towards a more coordinated approach to the derivation of meteorological data from ICAO aircraft observations in support of improved weather services.

Venue & Dates

Venue: Proposed: WMO Secretariat, Geneva, Switzerland.

Schedule and Dates: 28-29 October - Workshop will commence at 9:30 am and we expect to conclude business at or before 4pm on the 29th October.

Meeting Room: WMO Headquarters, Meeting Room 8 Jura (Level 8, Exit lifts to right and proceed to end of corridor.)

Information on WMO and Geneva: http://www.wmo.int/pages/visitors/index_en.html

Nearby hotels:

- Mon Repos: <http://www.hotelmonrepos.ch/en/>
- The Eden: <http://www.eden.ch/>

Security: An entry badge will be provided by the reception desk on the first morning - please bring photographic ID.

Topics

It is expected that the following topics will be covered:

- Future requirements for upper air data.
- Status & future of the AMDAR Program.
- Status & future of ICAO aircraft observations.
- Aircraft tracking systems.
- WMO Member access to ICAO aircraft observations.
- Policy, ownership and liability issues.
- Requirements for data management and quality control.
- Cost/benefit and resourcing.

Outcomes

The following outcomes are expected:

- 1) Better understanding of the current and future availability of aircraft observations to WMO Members.
- 2) Better understanding of ICAO objectives for the availability, use and management of aircraft observations.
- 3) Development of plans for future collaboration between ICAO and WMO on aircraft observations access and management.

Tentative Program

Day 1

Item	Title/Topic	Description	Presenter
1	WMO ABO & AMDAR Status, Requirements & Issues	<ul style="list-style-type: none">• Global Status of ABO, AMDAR• Requirements for ABO by WMO Members and User Applications Areas• WMO regulations & guidance on ABO• Current issues with ADS data	Frank Grooters
2	ICAO Position on Aircraft Observations	<ul style="list-style-type: none">• ICAO evolving and future approach to meteorology and meteorological data• ICAO expectations regarding future of ADS & Aircraft Tracking• ICAO position on AMDAR and Aircraft Derived Data (ADD) and relation to WMO Res. 40• Future of Annex 3 & regulations on Aircraft Observations	Neil Halsey
3	EUMETNET Developments & Expectations for ADD	<ul style="list-style-type: none">• Developments in acquisition of ADD in Europe• Expected development of ADD by EUMETNET members	Siebren de Haan
4	Use of and requirements for ABO data by WAFC London	Use of and requirements for ABO data by WAFC London	Chris Tyson
5	Use of and requirements for ABO data by WAFC Washington	Use of and requirements for ABO data by WAFC Washington	Matt Strahan

Day 2

Item	Title/Topic	Description	Moderator
1	Discussion on key topics	<ol style="list-style-type: none"> 1. What are the requirements for Upper Air data & ABO by WAFCs in support of ATI? 2. How much of requirements for Upper Air data can/should be provided by ICAO? 3. How would cost be attributed/recovered? 4. Are there issues with WMO Res. 40. 5. How can availability of ADS data be improved and extended in the future? 6. What are requirements for QC and management of ICAO ABO and how can required QC of data be achieve? 	Frank Grooters
2	Conclusions, Recommendations, Actions	<ul style="list-style-type: none"> • Workshop to derive a set of conclusions, recommendations and actions arising from the meeting. 	
3	Report	<ul style="list-style-type: none"> • Agreement on how to report to WMO members on the outcomes of the workshop. 	

Participants

Frank GROOTERS
(Chair)
Proposed by: Netherlands

Consultant, Frank Grooters
Prunuslaan 17
NL-3723 WC Bilthoven
Netherlands
Tel: +31 30 2293250
Mobile: +31 6 11225867
Email: fgrooters@gmail.com

Siebren DE HAAN
(Invited member)
Proposed by: Netherlands

Royal Netherlands Meteorological Institute
Utrechtseweg 297
NL-3731 GK DE BILT
Netherlands
Fax: +31 30 2210 407
Tel: +31 30 2206 745
Email: siebren.de.haan@knmi.nl

Stewart TAYLOR
(Invited member)
Proposed by: United Kingdom

Met Office Unit 3
Holland Business Park,
Spa Lane
L40 6LN Lathom
LANCASHIRE
United Kingdom of Great Britain and Northern
Ireland
Fax: +44 1392 885 681
Tel: +44 1695 729 742
Mobile: +44 775 388 0518
Email: stewart.taylor@metoffice.gov.uk

Chris TYSON
(Invited member)
Proposed by: United Kingdom

RSMC EXETER
Met Office
FitzRoy Road
EXETER
Devon
United Kingdom of Great Britain and Northern
Ireland
Fax: +44(0)870 900 5050
Tel: +44(0)1392 884892
Mobile: +44 (0)7810 757304
Email: chris.tyson@metoffice.gov.uk

Matthew STRAHAN
(Invited member)
Proposed by: United States

National Weather Service
International Activities
SSMC2, Room 11104
20910 SILVER SPRING
MD
United States of America
Tel: +1-816-584-7203
Email: matt.strahan@noaa.gov

Neil HALSEY
(Invited expert)
Proposed by: ICAO

International Civil Aviation Organization
(ICAO)
999 Robert-Bourassa Boulevard
H3C 5H7 MONTREAL
QC
Canada
Tel: +1 514 9548219 ext 6107
Email: nhalsey@icao.int

Dean LOCKETT
(Coordinator)
WMO Secretariat

World Meteorological Organization
7 bis, avenue de la Paix
Case postale No. 2300
CH-1211 2 GENEVA
Switzerland
Fax: +41-22-7308021
Tel: +41-22-7308323
Email: dlockett@wmo.int

Dimitar IVANOV
WMO Secretariat

World Meteorological Organization
7 bis, avenue de la Paix
Case postale No. 2300
CH-1211 2 GENEVA
Switzerland
Email: divanov@wmo.int