

World Meteorological Organization Organisation météorologique mondiale Secrétariat 7 bis, avenue de la Paix – Case postale 2300 – CH 1211 Genève 2 – Suisse Tél.: +41 (0) 22 730 81 11 – Fax: +41 (0) 22 730 81 81 wmo@wmo.int – www.wmo.int

Weather • Climate • Water Temps • Climat • Eau

Our ref.: OBS/WIS/DRMM/AvXML

GENEVA, 10 February 2015

Annexes: 2

- Subject: Call for experts to assist the Commission for Basic Systems develop data representation standards to support international civil aviation
- Action required: Provide expert(s) to continue the development of information in support of international civil aviation

Dear Sir/Madam,

The conjoint WMO/ICAO Meteorology Divisional Meeting held in Montréal from 7 to 18 July 2014 considered the implications for meteorology of the plans by ICAO to implement the System-Wide Information Management (SWIM) environment to support the future Air Traffic Management system. The final report of the meeting recorded that further development of data representations would be needed to meet the expectations of SWIM. The Commission for Basic Systems (CBS) at its 2014 extraordinary session (CBS-Ext.(2014)) also considered the implications of SWIM and concluded that the work of the ad hoc Task Team on Aviation XML would need to be extended to include representation of all the information in support of international civil aviation that is required by the WMO *Technical Regulations* (WMO-No. 49, Volume 2), and also that experts developing the WMO Information System (WIS) would need to coordinate their work with the CAeM Expert Team on Information and Services for Aviation.

In considering its support to the ICAO SWIM concept, CBS identified that in addition to the extra demands on the time of experts for developing new data representations, meeting the needs of ICAO would require the development of training materials and the implementation of training activities that would need the assistance from experts with expertise in training and development in the aviation environment.

I would like to thank those Members who contributed the time of their experts to develop the first data representations in support of SWIM that form the basis of the XML representation of meteorological information supporting international civil aviation that is called IWXXM. Congress at its seventeenth session will consider the CBS recommendation to approve IWXXM.

- To: Permanent Representatives (or Directors of Meteorological or Hydrometeorological Services) of Members of WMO (PR-6821)
- cc: Hydrological Advisers to Permanent Representatives

I would like you to consider whether you are able to contribute further time and support for experts to continue the development of information in support of international civil aviation. A list of current participants in the work of the CBS Task Team on Aviation XML (TT-AvXML) is given in Annex 1. The working language of TT-AvXML is English. The terms of reference for TT-AvXML are given in Annex 2. Although most of the work of the expanded team will be by correspondence or teleconference, a limited number of meetings will be needed to resolve complex issues.

If you are able to provide experts to assist with this task, please submit the form at http://wis.wmo.int/file=1117 and send a copy to wis-help@wmo.int.

Yours faithfully,

(M. Jarraud) Secretary-General

WORLD METEOROLOGICAL ORGANIZATION

OBS/WIS/DRMM/AvXML, ANNEX 1

PARTICIPANTS IN THE WORK OF TT-AvXML

Enrico FUCILE (Lead) Proposed by: ECMWF

Dennis HART (Member) Proposed by: Belgium

Bart NICOLAI (Member) Proposed by: EUROCONTROL

Patrick SIMON (Member) Proposed by: France

Siegfried FECHNER (Member) Proposed by: Germany

Dirk ZINKHAN (Member) Proposed by: Germany ECMWF Shinfield Park RG2 9AX READING, United Kingdom of Great Britain and Northern Ireland Fax: +44 118 949 9450 Tel: +44 118 986 9454 E-mail: enrico.fucile@ecmwf.int

EUROCONTROL 96 Rue de la Fusée 1130 Brussels Belgium Fax: n/a Tel: +32 27293050 E-mail: dennis.hart@eurocontrol.int

Belgocontrol Tervuursesteenweg 303 B-1820 Steenokkerzeel Belgium Fax: + 32 2 206 28 09 Tel: +32 2 206 28 14 E-mail: Bart Nicolai@belgocontrol.be

Météo-France 42, avenue Gaspard Coriolis 31057 TOULOUSE CEDEX France Fax: N/A Tel: +33 5 61 07 8150 E-mail: patrick.simon@meteo.fr

Deutscher Wetterdienst (DWD) Frankfurter Strasse 135 D-63067 OFFENBACH AM MAIN Germany Fax: +49 69 8062 3566 Tel: +49 69 8062 2865 E-mail: siegfried.fechner@dwd.de

Deutscher Wetterdienst (DWD) Frankfurter Strasse 135 D-63067 OFFENBACH AM MAIN Germany Tel: +49 (69) 8062-2698 E-mail: dirk.zinkhan@dwd.de Boon Leung CHOY (Member) Proposed by: Hong Kong

Neil HALSEY (Member) Proposed by: ICAO

Dzhalil AKHTYAMOV (Member) Proposed by: Russian Federation

Jeremy TANDY (Member) Proposed by: United Kingdom

Steve ALBERSHEIM (Member) Proposed by: United States

Jeffrey ATOR (Member) Proposed by: United States Hong Kong Observatory (HKO) 134A Nathan Road KOWLOON Hong Kong, China Fax: +852 23752645 Tel: +852 29268350 E-mail: blchoy@hko.gov.hk

International Civil Aviation Organization (ICAO) 999 University Street H3C 5H7 MONTREAL QC Canada Tel: +1 514 9548219 ext 6107 E-mail: nhalsey@icao.int

ROSHYDROMET 12 Novovagankovsky Street 123242 MOSCOW Russian Federation Fax: +(7 499) 252 5504; +(7 495) 605 3332 Tel: +(7 499) 795 2288 ; +(7 499) 255 1982 E-mail: add@mecom.ru, meteosrv@mail.ru

Met Office FitzRoy Road EX1 3PB EXETER Devon United Kingdom of Great Britain and Northern Ireland Fax: +44 870 900 5050 Tel: +44 1392 88 6584 E-mail: jeremy.tandy@metoffice.gov.uk

National Weather Service International Activities SSMC2, Room 11104 20910 SILVER SPRING MD United States of America E-mail: steven.albersheim@faa.gov

NOAA - National Weather Service 5830 University Research Court MD 20740 College Park United States of America Fax: +(1 301) 763 8381 Tel: +(1 301) 683 3912 E-mail: jeff.ator@noaa.gov Alfred MOOSAKHANIAN (Member) Proposed by: United States

Mark OBERFIELD (Member) Proposed by: United States

Steve OLSON (Member) Proposed by: United States

Matthew PEROUTKA (Member) Proposed by: United States

Eduard GRINGINGER (Interested expert) Proposed by: Austria

Vlasta TUTIS (Interested expert) Proposed by: Croatia National Weather Service International Activities SSMC2, Room 11104 20910 SILVER SPRING MD United States of America E-mail: alfred.moosakhanian@faa.gov

NOAA - National Weather Service 1325 East-West Highway SILVER SPRING MD 20910 United States of America Fax: N/A Tel: N/A E-mail: Mark.Oberfield@noaa.gov

NOAA - National Weather Service 1325 East-West Highway SILVER SPRING MD 20910 United States of America Fax: N/A Tel: N/A E-mail: Steve.R.Olson@noaa.gov

NOAA - National Weather Service 1325 East-West Highway SILVER SPRING MD 20910 United States of America Fax: +1 301 713 9316 Tel: +1 301 713 1768 ext 144 E-mail: Matthew.Peroutka@noaa.gov

FREQUENTIS Innovationsstrasse 1 110 VIENNA Austria Tel: + 43 664 608 501 429 Email: eduard.gringinger@frequentis.com

Meteorological and Hydrological Service Gric 3, Hrvatska 10 000 ZAGREB Croatia Fax: +385 1 45 65 757 Tel: +385 1 45 65 768 E-mail: tutis@cirus.dhz.hr Hubert LEPORI (Interested expert) Proposed by: ICAO

Gianluca MARRAZZO (Interested expert) Proposed by: Italy

Aaron BRAECKEL (Interested expert) Proposed by: United States EUROCONTROL 96 Rue de la Fusée 1130 Brussels Belgium Tel: +32 27895038 E-mail: hubert.lepori@eurocontrol.int

SESM S.C.A.R.L. c/o SELEX-SI Via Circumvalbizione Esterna 80014 (NA) Giuliano in Campagna Italy Tel: + 39 081 8180738 E-mail: gmarrazzo@sesm.it

National Center for Atmospheric Research 1850 Table Mesa Drive P.O Box 3000 80307 BOULDER CO United States of America Tel: +1 303 497 2806 E-mail: braeckel@ucar.edu

WORLD METEOROLOGICAL ORGANIZATION

OBS/WIS/DRMM/AvXML, ANNEX 2

TERMS OF REFERENCE FOR THE TASK TEAM ON AVIATION XML

- (a) To define the weather and climate information that must be represented in the aviation XML standard;
- (b) To identify the key characteristics required of the aviation weather XML standard to allow consistency with the emerging WMO data model and existing examples of best practice e.g. EUROCONTROL WXCM, and that will allow consistent evolution alongside other WMO data representations to avoid duplication of effort and inconsistencies;
- (c) To identify how the aviation weather XML standard can be maintained over a 50 year lifetime (METAR has been used since 1968) in an environment where it is used within embedded avionics;
- (d) To create XML representations of information to support Amendments 76 and 77 to WMO-No. 49, Volume 2 (Annex 3 to the Convention on International Civil Aviation);
- (e) To create a final standard in line with ICAO requirements that takes account of the lessons learned during testing;
- (f) To set up mechanisms for the creation, operation and maintenance of any catalogues, registries or similar that are required to support the aviation weather XML standard;
- (g) To create and provide the necessary regulatory and supporting materials for the aviation weather XML standard to be implemented;
- (h) To define and maintain the WMO Logical Data Model ("METCE");
- (i) To support CAeM in the creation and delivery of an implementation plan to develop the capacity of WMO Members to use the XML representation of aviation information;
- (j) To coordinate activities with the CAeM Expert Team on Information and Services for Aviation.

This work to develop the additional representations to support Amendment 77 is expected to take three years, with two meetings each year: an editing meeting with a limited number of participants and a full meeting together with telephone conferences for development. Each member of the team will be expected to contribute about two months of work to the development each year. Further, additional resources will be needed to deliver the implementation plan.