



International Civil Aviation Organization

**MIDANPIRG Meteorology Sub-Group  
Sixth Meeting (MET SG/7)**

*(Cairo, Egypt, 14 - 16 November 2017)*

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- Agenda Item 4: Performance Framework for MET implementation in the MID Region**  
**4.1 Review of the implementation of WAFS and SADIS**

**SUMMARY OF RECENT AND FORTHCOMING  
DEVELOPMENTS TO THE SADIS**

*(Presented by SADIS Provider)*

**SUMMARY**

This paper reports on the progress of the Secure Aviation Data Information Service (SADIS) since the last meeting of the MID MET Sub Group in March of 2016. Some of these developments have had a direct impact on end users. A number of important developments are planned to the SADIS in future years and these are highlighted in this paper for the consideration of the group.

This paper relates to – **Strategic Objectives:**

A: *Safety – Enhance global civil aviation safety*

**Global Plan Initiatives:**

GPI-19 Meteorological Systems

**1. INTRODUCTION**

1.1 This paper presents developments to the WAFS since the sixth meeting of the MID MET Sub Group (1-3 March 2016, Cairo). There have been two meetings of the Meteorological Operations Group Working Group relating to WAFS (WG-MOG/3 WAFS<sup>1</sup> and WG-MOG/4 WAFS<sup>2</sup>) since MID METSG/6. Users are encouraged to review information relating to SADIS, which is available on the ICAO WG-MOG website at URL: <http://www.icao.int/airnavigation/METP/MOG/Pages/default.aspx>.

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<sup>1</sup> 15 – 16 June, 2015; Gatwick, United Kingdom

<sup>2</sup> 4 – 7 April, 2017; Exeter, United Kingdom

## **2. RECENT DEVELOPMENTS**

### **2.1 Cessation of the SADIS 2G satellite broadcast 31 July 2016**

The SADIS 2G service was withdrawn at 1200 UTC on 31 July 2016 and now SADIS is now provided purely via the Internet.

*Action: Any SADIS 2G users who have not yet transitioned to SADIS FTP – for whatever reason – are encouraged to do so and should contact the SADIS Manager.*

### **2.2 New definition of the SADIS acronym**

On the 1<sup>st</sup> of August 2016, the SADIS acronym was redefined as "Secure Aviation Data Information Service", the new definition being more representative of the service following withdrawal of the satellite component. With 'Secure' now an explicit component of the acronym, references to 'Secure SADIS FTP' will subsequently be replaced with 'SADIS FTP', also effective 1<sup>st</sup> August 2016.

*Action: Note this information.*

### **2.3 Update to SADIS User Guide**

In light of the cessation of the SADIS 2G service, a comprehensive review of the SADIS User Guide and the (as was) Secure SADIS FTP User Guide has been undertaken. The revised documentation has been issued as SADIS User Guide Part 1 (General and Administrative) and SADIS User Guide Part 2 (Technical). The updated SADIS User Guide (Part 1 and Part 2) is available from the WG-MOG webpages – <http://www.icao.int/airnavigation/METP/MOG/Pages/SADIS.aspx>.

*Action: Review the updated SADIS User Guide (Part 1 and Part 2).*

### **2.4 Updated SADIS Pages on Met Office web site.**

In light of the cessation of the SADIS 2G service, the Met Office SADIS webpages were reviewed and updated. The revised pages are available from <http://www.metoffice.gov.uk/aviation/sadis>.

*Action: Regularly review information available on the Met Office SADIS webpage.*

### **2.5 Provision of additional flight levels to World Area Forecast System (WAFS) Upper Air Forecasts**

Effective 1200 UTC on 9 November 2016, and in accordance with Amendment 77 to ICAO Annex 3 - *Meteorological Service for International Air Navigation*; both World Area Forecast Centres (WAFS) made available additional flight level data as part of the WAFS gridded upper air forecasts. The extra levels provided are Flight Level (FL)080 (750hPa); FL210 (450hPa); and FL480 (125hPa). The data, from both WAFSs, was made available on the Secure SADIS FTP Service (hereafter referred to as SADIS FTP) from 1200 UTC 9 November 2016

*Action: Note this information. Contact your SADIS Workstation provider to ensure that software is updated to benefit from the additional vertical levels.*

## 2.6 Trial of Low Level Area Forecasts in Graphical Format on SADIS FTP

Effective 28 March 2017, the SADIS provider commenced a trial of the provision of Low Level Area Forecasts in Graphical Format on SADIS FTP. This trial is expected to last until at least June 2018.

At time of submission of this paper, Low Level Area Forecasts in Graphical Format were being provided by Germany, Romania, Ireland and the United Kingdom.

*Action: Note this information. States are encouraged to make their Low Level Area Forecasts in Graphical Format available as part of the ongoing trial. The criteria, as agreed at the last meeting of the WG-MOG is provided in the Appendix. Please contact the SADIS manager if your State wishes to participate.*

## 2.7 Increase of SADIS FTP bandwidth (between SADIS Provider and the SADIS Provider's Internet Service Provider)

The overall bandwidth available to the SADIS FTP Service (between the SADIS Provider and the SADIS Provider's Internet Service Provider) has been increased from 24Mbit/sec bursting 42Mbit/sec to 42Mbit/sec bursting 60Mbit/sec, effective 1200 UTC, 27 April 2017. Individual client connections to SADIS FTP remain at 2048Kbit/sec.

*Action: Note this information.*

## 2.8 Trial of web based SADIS user survey, in addition to the State based survey

Following Recommendation 4/1 of the WG-MOG/4 meeting, the SADIS Provider commenced a trial SADIS 'user' level web survey on 1 September 2017 with invites sent directly to known SADIS users and contacts. The effectiveness of this survey will be reviewed at the next WG-MOD (SADIS/WAFS) meeting. This meeting will note that the efficacy questionnaire is directed to the State, representing the users within that State's borders.

*Action: Note this information. State authorities should continue to respond to the State level SADIS efficacy questionnaire. Users are also strongly encouraged to respond to the separate, 'user' level survey. Please contact the SADIS manager if you have not received an invitation to the SADIS 'user' level survey and would like to participate.*

## 3. FORTHCOMING DEVELOPMENTS

### 3.1 Developments to SADIS in relation to the Aviation System Block Upgrades schedule.

The SADIS Provider State is developing plans to enhance the data provision on SADIS consistent with the schedule expressed at the Meteorology Divisional Meeting (7-18 July 2014, Montréal, Canada), and consequently aligned with the Aviation System Block Upgrade schedule.

The SADIS Provider State will present proposals for consideration at the next WG-MOG (SADIS/WAFS) meeting (anticipated late April of 2018).

*Action: Note this information.*

**4. STANDING ARRANGEMENTS**

**4.1 Access to Internet based services (SADIS FTP)**

SADIS users are encouraged to apply for WAFS Internet File Service (WIFS) accounts for the establishment of backup/contingency processes in the rare event of a failure of SADIS. Users should note that there are agreed policies with regard to accessing data from SADIS and WIFS, and the use of such backup/contingency accounts. Details are available on the WG-MOG web pages:

<http://www.icao.int/airnavigation/METP/MOG/Pages/SADIS.aspx>

Note, it is the user's responsibility to apply for and arrange a WIFS account. *The SADIS Provider is not in a position to arrange such accounts on behalf of users.*

***Action:** Users are encouraged to establish and regularly test backup accounts to be used in the rare event that SADIS FTP is unavailable.*

**5. ACTION BY THE METG**

5.1 The METG is invited to:

- a) note the contents of this paper; and
- b) discuss any relevant matters as appropriate.

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**APPENDIX: CRITERIA FOR INCLUSION OF LOW LEVEL AREA FORECASTS IN GRAPHICAL FORMAT ON SADIS FTP (TRIAL).**

Specification for inclusion on SADIS FTP:

**File format:**

To be in portable networks graphic (PNG) format.  
Each file to be a single, static image only (i.e. no multipage or multi-image files).

**File size**

To be a maximum of 250 Kbytes

**Image content:**

Each image should include contact details of the issuing office – this to enable users to contact the originator in the event of clarification being necessary.

**Image headers:**

Each image file is to be encapsulated in a WMO envelope, and attributed a WMO AHL in accordance with established procedures. To the maximum extent possible, issuing States will align WMO AHLs with those of Low Level Graphic Forecasts issued by other States to permit efficient routing. The issuing State is responsible for assigning such a WMO AHL. The issuing State shall be responsible for ensuring that correct assignments are made to any amendments or corrections to their low-level area forecasts.

**Issue times, validity, amendment and correction criteria:**

It shall be the responsibility of the originating State to determine issue times, validity times, amendment criteria and correction criteria. The SADIS Provider shall consider the data to be 'unscheduled', and therefore shall not monitor for availability/timeliness. It is recommended that the issuing State (or nominated agent) arrange to actively monitor the availability of its own data on the SADIS FTP service.

**Distribution to the SADIS Provider:**

Initially, during the trial, low level forecasts in graphical format may be forwarded to the SADIS Provider, under bi-lateral agreement solely for distributing to SADIS FTP. It is anticipated that, if the trial becomes a fully operational service, low level forecasts in graphical format shall be forwarded to the SADIS Gateway, using AMHS and extant AFS data-distribution protocols.

**Presentation on Secure SADIS FTP:**

*'ALL' folder '.dat' files.*

During the trial period, the image files will be **NOT** be made available in the 5 minute '.dat' files within the 'ALL' folder of SADIS FTP. If, and only if, the trial is promoted to an operational service, the files will be made available via this folder.

*'LOW\_LEVEL\_AREA\_FORECASTS\_GRAPHICS'.*

A new folder shall be created on SADIS FTP, identified as 'LOW\_LEVEL\_AREA\_FORECASTS\_GRAPHICS' and will be expected to function in a similar fashion to the current 'VOLCANIC\_ASH\_ADVISORY\_GRAPHICS' folder. A sub-folder – PNG\_FORMAT will be created.

(6 pages)

Within the PNG-FORMAT folder, each low level area forecast in graphical format will be presented as a distinct file. The filename simile of the WMO AHL (including any amendment or correction suffixes) shall be used by software accessing the service to inspect and download the files. Files will not be deleted until the folder expiry time (36 hours) has been reached. In the event that an image file is received with an existing WMO AHL assignment, then the older file will be overwritten with the newly received file. It is the responsibility of the originator to ensure that any corrections or amendments are correctly identified in order to prevent inadvertent overwriting of existing files.

**Pre-operational test phase:**

New image files from a given State will be made available for a period of up to 6 weeks on the SADIS Development server for the SADIS Provider to identify any problems (note, access to the development system outside the Met Office is not possible).

**Operational Implementation:**

On assumption that the examples are considered acceptable by the SADIS Provider the data will be made available on the operational SADIS FTP service.

made available via SADIS FTP.

*Note 1. — Only low-level area forecasts in graphical format from the Regions which have expressed an aeronautical requirement for these products in the ICAO Air Navigation Plans will be included.*

*Note 2. — It will be assumed that Regional Air Navigation Plans that currently enable distribution of AIRMET and GAMET via SADIS, should be interpreted as enabling distribution of low-level area forecasts in graphical format.*

*Note 3: - Originating States shall ensure that such data complies with the principles set out in Appendix B [to this Study Note].*

*Note 4: - The trial, subject always to note 6 below, shall initially be planned to have an end date of 10 July 2018. Subject to note 5 below, the provision of the data shall either then be made fully operational or terminated.*

*Note 5: - A review of this trial will be presented by the SADIS Provider at the next appropriate METP WG-MOG (SADIS) meeting (anticipated May/June 2018).*

*Note 6: - During the trial period, the SADIS Provider shall have the right to terminate – without notice – provision of the data if, in the opinion of the SADIS Provider, it endangers the service as whole.*

– END –