



International Civil Aviation Organization

**MIDANPIRG Meteorology Sub-Group
Fourth Meeting (MET SG/4)**

(Cairo, Egypt, 25 – 27 June 2013)

Agenda Item 4.1: Review implementation of WAFS and SADIS

SUMMARY OF RECENT AND FORTHCOMING
DEVELOPMENTS TO THE SADIS

(Presented by the SADIS Provider)

SUMMARY

This paper describes SADIS developments since December 2011. 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 SADIS since the last meeting of the MIDANPIRG MET SG (MET SG/3) in December 2011. There have been two SADISOPSG meetings since December 2011 (the seventeenth¹ and eighteenth² meetings). For more detail of the activities of the SADIS, users are encouraged to review information available on the ICAO SADIS Operations Group website at URL: <http://www.icao.int/safety/meteorology/sadisopsg/Pages/default.aspx>.

2. RECENT DEVELOPMENTS

2.1 Withdrawal of SADIS FTP

SADIS FTP was withdrawn on 3rd December 2012, in accordance with SADISOPSG Conclusions 16/15 and 17/21.

Suggested action: *No further action required.*

¹ SADISOPSG/17, 29-31 May 2012, Cairo, Egypt

² SADISOPSG/18, 29-31 May 2013, Dakar, Senegal

2.2 **Implementation of alternative topology/systems for monitoring SADIS 2G downlink.**

The SADIS Provider (UKMO) has recently implemented alternative systems for monitoring the downlink of the WAFS GRIB1 and GRIB2 upper air forecast; and the WAFS PNG and BUFR SIGWX forecast. This should improve the general monitoring and reporting of the quality of the SADIS 2G downlink in the future. The monitoring of the QC OPMET data by the SADIS Gateway Provider (NATS) is expected to be similarly improved in coming months.

Suggested action: Note this information.

2.3 **Implementation of more frequent updates to Annex 1 of the SADIS User Guide (FASID Table MET 2A).**

The Secretary of the SADISOPSG, in coordination with the SADIS and WIFS Provider States (and Regional OPMET Databanks), has initiated a process (12 December 2012) by which the SADIS and WIFS Gateways will be informed of changes to Annex 1 of the SADIS User Guide/FASID Table MET 2A on a more frequent basis (previously only twice per year). Both the SADIS and WIFS Gateways will use this information to implement necessary changes to their routing tables.

Suggested action: Note this information.

2.4 **Initiation of regular (monthly) SADIS 2G ISDN Backup Tests.**

The SADIS Provider has implemented (for more than 1 year) regular monthly tests of the SADIS 2G ISDN backup infrastructure. These tests, which are expected to be transparent to the user, are in order to ensure that all staff are familiar with the process should there be a need to implement the SADIS 2G ISDN backup for genuine reasons. The process has been so successful, that it has also been used to cover periods of essential maintenance to the SADIS 2G ground infrastructure.

Suggested action: Note this information.

3. **FORTHCOMING DEVELOPMENTS**

3.1 **Future requirements of a SADIS satellite broadcast beyond 2015**

In accordance with SADISOPSG Conclusions 16/13 and 17/20, recommendations concerning the future of the SADIS 2G satellite broadcast were presented to the SADISOPSG/18 meeting in May of 2013. The SADISOPSG endorsed the extension of the provision of the satellite based service (SADIS 2G) until November 2019, including a hardware refresh of the ground segment equipment to be undertaken late 2015/early 2016. This recommendation will be taken forward to the Conjoint ICAO Meteorological Divisional Meeting, tentatively planned for July 2014.

Suggested action: Note this information, and review the Final Report of SADISOPSG/18 in relation to this important subject.

3.2 **Feasibility study into the increase of Secure SADIS FTP bandwidth.**

The SADISOPSG/17 endorsed a feasibility study into the provision of increased bandwidth for Secure SADIS FTP. A Working Paper was presented to SADISOPSG/18 outlining the options available and the resultant costs to implement. The SADISOPSG endorsed the increase of the Secure

SADIS FTP bandwidth (between the SADIS Provider and the SADIS Provider's ISP³) to 16Mbit/sec bursting to 24Mbit/sec (current bandwidth is 4Mbit/sec bursting to 8Mbit/sec). This will be implemented by August 2013.

***Suggested action:** Note this information, and review the Final Report of SADISOPSG/18 in relation to this important subject.*

3.3 **Withdrawal of WAFS Upper Air Forecasts in WMO GRIB Edition 1 code form.**

As will be noted in the separate "*Summary of Recent and Forthcoming Developments to the WAFS*" Working Paper, presented to this meeting, WAFS Upper Air Forecasts in WMO GRIB Edition 1 will be withdrawn as of applicability of Amendment 76 to ICAO Annex 3. The last WAFS Upper Air Forecasts produced in GRIB1 code form will be those with observational data time of 1800 UTC 13 November 2013. Accordingly, they will no longer be made available on SADIS 2G or Secure SADIS FTP as of that date.

***Suggested action:** Users must test the ingestion and visualization of WAFS GRIB2 data before the termination of GRIB1 to ensure that their systems are fully compatible.*

3.4 **Expected provision of WAFS London CB, icing and turbulence data via SADIS 2G.**

With regard to the removal of the 'trial' label in relation to WAFS Upper Air Forecasts for cumulonimbus (CB) cloud, icing and turbulence (effective 14 November 2013), the SADIS Provider expects to commence distribution of WAFS London GRIB2 forecasts of CB cloud, icing and turbulence via SADIS 2G accordingly. Such forecasts are already made available on Secure SADIS FTP, but changes will be made to the directory structure to remove references to 'TRIAL_FORECASTS'. This action was endorsed at the SADISOPSG/18 meeting.

***Suggested action:** Note this information, and review the Final Report of SADISOPSG/18 in relation to this important subject.*

3.5 **Expected provision of WAFS London Upper Air Forecast data for FL410.**

WAFS London expects to produce and distribute additional data for FL410 in accordance with the requirements of Amendment 76 to ICAO Annex 3 – *Meteorological Service for International Air Navigation* (effective 14 November 2013). The data will be made available via SADIS 2G and Secure SADIS FTP. This action was endorsed at the SADISOPSG/18 meeting. Test data is available, and those who wish to access the test data should contact the SADIS Manager – chris.tyson@metoffice.gov.uk.

***Suggested action:** Note this information, and review the Final Report of SADISOPSG/18 in relation to this important subject.*

³ Note, this refers only to the connection between the SADIS Provider and the SADIS Provider's Internet Service Provider (ISP). The downstream connections are outside the control of the SADIS Provider.

4. STANDING ARRANGEMENTS

4.1 Access to Internet based services (Secure SADIS FTP/WIFS).

SADIS users are encouraged to apply for WIFS accounts for the establishment of backup/contingency processes in the rare event of a failure of SADIS. Users should note that there are now agreed policies with regard to accessing data from SADIS and WIFS, and the use of such backup/contingency accounts. Details are available on the SADISOPSG Website <http://www.icao.int/safety/meteorology/sadisopsg/SADIS%20User%20Guide/Obtaining%20access%20to%20WIFS%20as%20a%20backup%20to%20SADIS%20FTP.pdf>. It is the user's responsibility to apply for and arrange a WIFS account. *The SADIS Provider will not arrange such accounts on behalf of users.*

***Suggested action:** Note this information. Users are encouraged to establish and regularly test backup accounts with the alternative provider to be used in the rare event that their normal service (Secure SADIS FTP or WIFS, as specified by Regional Air Navigation Plan) is unavailable.*

5. ACTION BY THE MEETING

5.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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