



*International Civil Aviation Organization*

**FOURTEENTH MEETING OF THE  
COMMUNICATIONS/NAVIGATION/SURVEILLANCE AND METEOROLOGY SUB-GROUP OF  
APANPIRG (CNS/MET SG/14)**



Jakarta, Indonesia, 19 – 22 July 2010

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**Agenda Item 8: Regional Implementation of World Area Forecast System (WAFS)**

**3) other WAFS (ISCS & SADIS) implementation issues**

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

(Presented by the SADIS Provider State)

**SUMMARY**

This paper describes SADIS developments since the APANPIRG CNS/MET SG/13 meeting (July 2009). 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

D: Efficiency – Enhance the efficiency of aviation operations

**Global Plan Initiatives:**

GPI-18 Aeronautical Information

GPI-19 Meteorological Systems

**1. Introduction**

1.1 This paper presents developments to the SADIS since the 13th meeting of the APANPIRG CNS/MET Sub-Group in July 2009. For more details of the activities of the SADIS, users may wish to review information available on the ICAO SADIS Operations Group website at URL: [www.icao.int/anb/sadisopsg](http://www.icao.int/anb/sadisopsg).

**2. Recent developments**

2.1 Hardware Refresh of SADIS 2G uplink ground segment

Following endorsement by the SADISOPSG/14 meeting (July 2009), the WAFS Provider implemented a substantial refresh of the uplink ground segment infrastructure of the SADIS 2G service. The replacement of equipment that was coming to end of reliable life ensures continued high quality and high reliability of the service for the forthcoming 5 years or so, and benefits from reduced annual

support and maintenance costs. The infrastructure is also slightly simplified, and the opportunity to purchase ‘cold spares’ was taken to improve the ‘return to service’ timescale in the unlikely event of a major component failure.

***Suggested action:** Note this information only.*

## 2.2 **WAFS Aviation GRIB 2 forecast data on SADIS FTP**

The SADIS Provider (as WAFS London) implemented the provision of WAFS Aviation GRIB 2 data (in compressed form) on its server based system SADIS FTP on 2<sup>nd</sup> March 2010. The parameters for CB, icing and turbulence have been made available as trial forecasts products for evaluation only on this system. The implementation of WAFS Aviation GRIB 2 data via SADIS 2G is referred to in section 3.1 of this paper.

***Suggested action:** Note this information and consider contacting workstation vendors for updates on software enhancements to visualise WAFS Aviation GRIB 2 data.*

## 2.3 **Progress in mitigation and reduction of SADIS 2G data losses.**

The SADIS Provider has, in collaboration with the SADIS Technical Developments Team and VADOS (AEP Networks), made substantial progress in eliminating the cause of transmission data losses on SADIS 2G. During the investigations it was also found that some data losses can be attributed to local reception issues. However, the SADIS Provider intends to continue to investigate the remaining causes for data losses in transmission.

***Suggested action:** Note this information only.*

## 2.4 **Update to the SADIS User Guide**

A significant update to the Fourth Edition of the SADIS User Guide (SUG) was endorsed by SADISOPSG/15. The updates related to implementation of GRIB 2 data on SADIS, changes to issue times of SIGWX forecast data, and a large number of editorial updates.

***Suggested action:** Note this information only.*

# 3. **Action by the Meeting**

## 3.1 **Provision of WAFS Aviation GRIB 2 data via SADIS 2G broadcast.**

WAFS Aviation GRIB 2 data is planned to be made available (in compressed form) via SADIS 2G in compliance with Amendment 75 of Annex 3 – *Meteorological Service for International Air Navigation*, effective 18<sup>th</sup> November 2010. Note, initially the parameters for CB Cloud, icing and turbulence will *not* be transmitted. Transmission of these parameters will be implemented following endorsement by WAFSOPSG.

***Suggested action:** Note this information and consider contacting workstation vendors for updates on software enhancements to visualise WAFS Aviation GRIB 2 data.*

**3.2 Development of Secure SADIS FTP service (“Phase 2”).**

Following a further study of possible options for providing an enhanced SADIS FTP service that will provide proof of source and data integrity, SADISOPSG/15 re-endorsed the decision to implement the ‘Secure SADIS FTP service’ using Digital Signing technology. The SADIS Provider expects to have the service available by 18<sup>th</sup> November 2010, and will work with workstation vendors in order to facilitate their ‘roll-out’ of compatible software over the following year. It should be noted that the existing SADIS FTP service will remain in service in parallel with the Secure SADIS FTP service for at least 12 months.

A re-registration process will be necessary for all users of SADIS 2G and the existing SADIS FTP service to obtain access to the Secure SADIS FTP service. The process will be initiated by the SADIS Provider inviting all existing SADIS users to provide appropriate details.

***Suggested action:** SADIS users are requested to note this information and respond in a timely manner to invitations to re-register for Secure SADIS FTP. Please note, the existing SADIS FTP service will remain in place until at least November 2011. SADIS users should consider contacting workstation vendors for updates on software enhancements to access Secure SADIS FTP.*

**3.3 SADIS 2G future bandwidth requirements.**

Following a detailed study, the SADIS Provider, in collaboration with the SADIS Technical Developments Team, has determined that the existing SADIS 2G bandwidth is, subject to certain conditions, sufficient for the transmission of WAFS Aviation GRIB 2 data. Consequently, the ‘spare’ capacity retained after cessation of the SADIS 1G service will be relinquished with a significant cost saving.

**4. Action required by the Meeting**

4.1 The APANPIRG CNS/MET Sub-Group is invited to review the content of this working paper and to consider suggested actions.

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