



International Civil Aviation Organization

**MIDANPIRG Meteorology Sub-Group
Twelfth Meeting (MET SG/13)**

(Cairo, Egypt, 16–17 December 2025)

Agenda Item 3: Global and Regional Developments related to MET

SADIS AND WAFS MATTERS

(Presented by the SADIS Provider)

SUMMARY

This paper provides an update on matters that relate to the WAFC London operated Secure Aviation Data Information System (SADIS) and the World Area Forecast System (WAFS) data sets.

Action by the meeting is at paragraph 6.

1. INTRODUCTION

1.1 This paper reports on SADIS operational matters as well as recent and upcoming changes in the provision of WAFS data on SADIS. These changes have been agreed through the ICAO Met Panel Meteorological Operations Group (MOG) at its annual meetings.

2. World Area Forecast System Data

Changes to the operational data sets

2.1 No significant changes have been made to the WAFS gridded data in the past year, apart from a correction being applied to the issuing centre names on the WAFC Washington non-hazard data.

2.2 On 23 January 2025 the T+24 SIGWX forecasts were automated. The T+24 charts are now provided in colour, with some changes to the content – notably the use of tropopause height contours, only OCNL and FRQ CB amounts being included, and the retirement of the in-cloud turbulence field on the medium level SIGWX. The normal issuance time of the forecasts changed from 6:50 hrs to 5:50 hrs after the model run time.

2.3 A fully automated backup procedure was put in place, with both WAFCs preemptively exchanging back up charts and BUFR data that can be used in the event they are required. When used this data is published at the 06:50 mark.

2.4 On 8 April 2025 the new multi-timestep SIGWX, which contains forecasts for T+6 to T+48 at 3-hourly intervals in IWXXM format) was made operational via the SADIS API.

WAFS Verification

2.5 Verification data for WAFC London is available here <http://www.metoffice.gov.uk/aviation/responsibilities/icao>. WAFC London is now able to provide turbulence verification data which uses the IATA Turbulence Aware data sets. These observations are reported as an Eddy Dissipation Rate (EDR) which is the same as what the WAFS Turbulence forecasts, but it is important to note that the IATA data doesn't differentiate between turbulence types and can therefore include convective turbulence which WAFC turbulence data is not trying to forecast.

2.6 Verification data for WAFC Washington is mostly available here: <https://www.emc.ncep.noaa.gov/users/verification/aviation/wafs/prod/>. Wind direction verification plots are available here: <http://www.emc.ncep.noaa.gov/gmb/icao/>.

2.7 Both WAFCs verify their own wind and temperature forecasts. WAFC London provides verification data for the harmonized/blended cumulonimbus cloud forecasts, and turbulence forecasts.

2.8 New performance metrics have been added by WAFC London which show model performance according to different wind speed categories, and for timesteps extending out to T+120.

2.9 The WAFCs will start providing SIGWX cumulonimbus, turbulence and icing verification in 2026 for multiple forecast timesteps, and are currently collecting the data needed to create this.

3. SADIS FTP

3.1 No changes have been made to the SADIS FTP in the past year. **It is planned to retire the SADIS FTP in November 2028 so all users need to migrate to the SADIS API prior to that date**

3.2 On 12 August 2025 the Met Office was alerted to a cyber security issue where login in details had been compromised by a third party. In response it was decided that it was necessary for all users to change their login passwords, and this was implemented at 09 UTC on 19 August 2025. Data on SADIS was not compromised as it is read only.

4. SADIS API

4.1 The SADIS API is now fully operational and comprises of three elements: one for provision of the higher resolution WAFS gridded data sets, one for the provision of WAFS SIGWX forecasts, and one for the provision of OPMET data.

4.2 The WAFS gridded data and OPMET parts of the API became operational on 19 March 2024, and the new multi-timestep SIGWX became operational on 8 April 2025.

4.3 **Appendix A** shows the users set up with access to the SADIS API as of 31 November 2025.

4.4 Information on the operation of the SADIS API is available here: <https://www.metoffice.gov.uk/services/transport/aviation/regulated/international-aviation/sadis/sadis-api/index>. It adheres to the EUROCONTROL SWIM technical infrastructure yellow profile, and is published in the EUROCONTROL SWIM registry (<https://eur-registry.swim.aero/services>). The API uses Open Geospatial Consortium Environmental Data Retrieval framework and is largely harmonized with its twin the WIFS API operated by WAFC Washington.

4.5 Registration for the SADIS API includes agreeing a set of terms and conditions, and getting set up onto the developer portal used by the Met Office.

4.6 During September 2025 a couple of changes were made to the OPMET part of the SADIS API:

- The file naming convention used for METAR and TAF data published on the SADIS API (as described in METG/34 WP03 and WP09) has been changed for collective/aggregated bulletins. This involves changing the “ii” in the “TTAAii” header to a value of “99” whenever there is more than one METAR or TAF in the bulletin. This is being applied to both TAC format and IWXXM format METARs and TAFs. This change has been discussed with both the EUR DMG and at the MOG-WAFS/29 meetings.
- An update was made to enable the publication of VONA messages (in TAC and IWXXM format) once they start to be exchanged over the AFS and are then routed to SADIS API from ROC London. The updated VONA is part of Amendment 82 to Annex 3.

4.7 There is one issue currently being worked on in relation to the WAFS gridded part of the SADIS API. The top level collection metadata file is currently updating prior to all the data being published. This is most noticeable for data in the collection that contains wind, temperature and geopotential data as it is the largest collection. It is expected that this will be in January 2026.

5. General SADIS Matters

SADIS Access

5.1 **Appendix A** provides a list of SADIS users located within the MID region and is a subset of the latest “Status of Implementation of SADIS” document that can be found here: <https://www.icao.int/airnavigation/aeronautical-meteorological-service/documents> (please bookmark this link – the previous METP public pages have recently moved here). This list now indicates users who have also signed up to use the new SADIS API.

5.2 SADIS using States are also encouraged to accede to the SADIS Agreement if they have not already done so. Information in the SADIS cost recovery process and the SADIS Agreement is available here: <https://www.icao.int/sustainability/Joint-Financing/Pages/SADIS.aspx>

5.3 States within the MID region who have not yet acceded to the SADIS agreement and who use SADIS are: Libya, Saudia Arabia, and Qatar. If these States wish to accede, then please contact the SADIS manager for information.

SADIS Cost Recovery Administrative Group.

5.4 In accordance with Article VII of the SADIS Arrangement, the SADIS Cost Recovery Administrative Group (SCRAG) is responsible for administering the Arrangement. The group meets annually to determine the cost-share attributable to each Party and to review the costs associated with the provision of the SADIS service, along with any related financial activities.

5.5 SCRAG is composed of at least one Party from each ICAO region, including representatives from the MID Region. Nominations for this role are coordinated through the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG). The next MIDANPIRG meeting (MIDANPIRG/23) is scheduled to be held from 08 to 12 June 2026.

5.6 One additional representative from the MID region are sought (must be from a SADIS using state) to increase the number of participants in the SCRAG. At present the U.A.E is the sole representative. There is a single 1-day meeting annually, usually held virtually in December.

5.7 Anyone interested in serving as the regional representative is invited to submit their candidacy to Nino Gelovani in advance of the MIDANPIRG/23 meeting for consideration.

SADIS Efficacy Survey

5.8 The annual SADIS FTP efficacy survey for 2025 commenced on 1 July 2025 and users are have been notified of it by SADIS administrative messages and, in due course, a letter from ICAO letter to focal points. The survey can also be accessed here: <https://response.questback.com/metoffice/hbkoeo6jeq>. The SADIS provider would like to thank those who responded last year and would like to encourage all SADIS users to participate in the 2025 Survey.

5.9 Organizations that have signed up to the SADIS API received a separate SADIS API at the end of November 2025. Once user uptake of the SADIS API has increased further, this survey will be formalized.

SADIS Data Catalogue

5.10 A catalogue of data usually present on SADIS has been created (from data obtained during the February 2025 monitoring period) so that missing TAF and METAR data can be more easily identified. The latest edition of the catalogue is hosted on SADIS in the /DOCUMENTATION/ folder and is available within the SADIS and WIFS documentation section on the Met Panel public webpages <https://www.icao.int/airnavigation/aeronautical-meteorological-service/documents>

- If a SADIS user identifies that some METAR, TAF or SIGMET data is absent from SADIS, the catalogue should be consulted to see if it is usually present before reporting it to the SADIS Manager (SADISmanager@metoffice.gov.uk) who will raise the issue with ROC London. ROC London will investigate and work with the other ROCs to try and restore missing data, or advise on next steps if there is a request for new data to be added to the feed.

SADIS Workstation Evaluations

5.11 The SADIS provider has put together a SADIS evaluation guide which users can use to evaluate their own systems. The intention of this guide is to assist users in identifying problems with their SADIS data visualization system/software by clearly showing what constitutes an acceptable standard. Users can then feedback any “non-compliance” issues to their software provider. There are two versions of this guide, one for SADIS FTP and one for SADIS API.

5.12 These guides can be found in the SADIS and WIFS documentation section on <https://www.icao.int/airnavigation/aeronautical-meteorological-service/documents>

5.13 Individual SADIS Workstation evaluations can still be carried out by the SADIS provider if required, however this work will be chargeable. Please contact the SADIS manager to discuss costs and an evaluation schedule should this be required.

6. ACTION BY THE MEETING

6.1 The meeting is invited to note the contents of this paper and undertake the SADIS efficacy survey if their organization is a SADIS user.

Appendix A – STATUS OF IMPLEMENTATION OF SADIS FTP

(As of 31 November 2025)

Key:

SADIS FTP = operational user ('X') of SADIS FTP or SADIS API service
** = approved SADIS hardware and/or software supplier*

<i>ICAO Contracting State</i>		<i>User</i>		<i>Location</i>	<i>SADIS FTP</i>	<i>SADIS API</i>
<i>No</i>	<i>Name</i>	<i>No</i>	<i>Name</i>	<i>Name</i>		
MID REGION						
105.	Bahrain	207.	Ministry of Transportation Civil Aviation Affairs	Bahrain International Airport	X	X
106.	Egypt	208.	Meteorological Authority	Cairo Airport	X	
	Egypt	209.	Egyptian Ministry of Defence	Cairo	X	
107.	Jordan	210.	Meteorological Department	Queen Alia Airport	X	
108.	Kuwait	211.	Meteorological Department	Kuwait	X	X
109.	Libya	212.	National Meteorological Centre	NMC - Eswani	X	
		213.	National Meteorological Centre	Tripoli Int. Airport	X	
		214.	National Meteorological Centre	Binena Int. Airport	X	
110.	Oman	215.	Public Authority for Civil Aviation/ Meteorological Department	Salalah Airport	X	
	Oman	216.	Public Authority for Civil Aviation/ Meteorological Department	Seeb Airport	X	
111.	Qatar	217.	Civil Aviation Authority - Meteorology Department	Doha Airport	X	X
112.	Saudi Arabia	218.	National Center for Meteorology (NCM)	Jeddah	X	
	Saudi Arabia	219.	National Center for Meteorology (NCM)	Jeddah Airport	X	
	Saudi Arabia	220.	National Center for Meteorology (NCM)	Riyadh Airport	X	
	<i>Saudi Arabia</i>		<i>Saudi Airlines</i>	<i>Jeddah Airport</i>		
113.	Sudan	221.	Sudan Meteorological Authority	Headquarter, Khartoum	X	
114.	United Arab Emirates	222.	National Centre for Meteorology (NCM)	HQ - Abu Dhabi	X	X
	United Arab Emirates	223.	National Centre for Meteorology (NCM)	Dubai International Airport	X	X
	United Arab Emirates	224.	National Centre for Meteorology (NCM)	Zayed International Airport	X	X
115.	Yemen	225.	Civil Aviation and Meteorological Authority (CAMA)	Sana'a Airport	X	
	Yemen	226.	National Meteorological Service (YMS/CAMA)	Sana'a	X	

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