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INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY

Atelier sur la mise en œuvre de l'Amendement 82 de l'Annexe 3 de l'OACI et des PANS-MET

(Ouagadougou, Burkina Faso, 9 – 13 mars 2026)

Session 3: Operational and institutional impacts

PPT3.1. - Migration to the New WAFS Gridded Data Sets Introducted by Amendment 82

Bureau WACAF, OACI

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Overview

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Introduction

- **The WAFS changes** introduced by Amendment 82 to Annex 3 of the Chicago Convention **are applicable as of November 2025.**

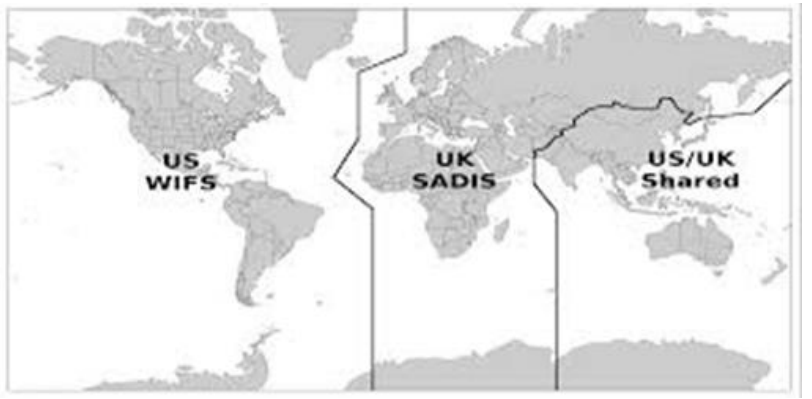
- Amendment 82 to Annex **3 restructured Annex 3** to facilitate the migration of the provision of aeronautical meteorological information from a "**product-centric**" to an "**information-based environment**" under the system-wide information management (**SWIM**), and the **evolution of the provision of aeronautical meteorological service in line with the Global Air Navigation Plan** (GANP).

- **WAFC London** and **WAFC Washington** have worked closely together to develop the **next generation of SADIS** (*Secure Aviation Data Information Service*) (operated by WAFC London) and WIFS (the backup to SADIS operated by NOAA).

- Both systems are **SWIM compliant** and use the Open Geospatial Consortium (OGC) Environmental Data Retrieval (OGC-EDR) API framework https://ogcapi.ogc.org/edr/.

SADIS – SADIS FTP

- SADIS has been operated by the **UK Met Office System** in various versions **since 1994**.
- Originally **it used a satellite**, then switched to use the **internet (ftp).**
- SADIS FTP is not able to handle the **huge increase in data volume** that comes with the **new WAFS gridded data sets**
- SADIS FTP also isn't (and can't be made to be) **SWIM compliant** in line with ICAO recommendations.
- **SADIS API** is the **newest generation of SADIS**. It is twinned with the WIFS API (operated by WAFC Washington).



A3 Chap. 3 STD 3.1.1 Un État contractant qui a accepté l'obligation de mettre en œuvre un centre mondial de prévisions de zone (CMPZ) dans le cadre du SMPZ prendra les dispositions nécessaires pour que ce centre :
a) élabore des prévisions mondiales aux points de grille portant :
……..

AFI eANP Vol I, Part V, Section 2. GENERAL REGIONAL REQUIREMENTS

World area forecast system (WAFS) and meteorological offices

§ 2.1 In the Africa-Indian Ocean Region, WAFC **London** has been designated as the centre for the operation of the aeronautical fixed service satellite distribution system / WAFS Internet File Service (SADIS and/or WIFS) and the Internet-based Secure SADIS FTP service.

Basic-ANP, Vol I $ 8.8: Each State should make the necessary arrangements to receive and make full operational use of WAFS products issued by WAFC London. FASID Table MET 7 provides the status of authorized access by SADIS users to the satellite broadcast and location of the operational VSATs. [APIRG/12, Con. 12/32]

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SADIS API

- Became **operational in March 2024 for the WAFS Gridded and OPMET data**
- Became **operational on 8 April 2025** for **WAFS SIGWX**
- Conforms to the **Open Geospatial Consortium (OGC)** Environmental Retrieval API standards https://ogcapi.ogc.org/edr/
- The WIFS API functions in **exactly the same way** and is **the backup system**

WAFS GRIDDED DATA UPGRADE

- Annex 3 Amendment 82, introduces higher resolution WAFS data into the regulations on **27 November 2025**.
- **WAFC's delivered this capability in February/March 2024**.

New 0.25-degree data sets:

Forecast Timesteps:
T+06 to T+24 at 1-hourly intervals
T+27 to T+48 at 3-hourly intervals[1]
T+54 to T+120 at 6-hourly intervals[2]
[1]Icing, Turbulence and Cumulonimbus stops at T+48
[2]WAFC London data past T+66 is only produced for the 00Z and 12Z model runs

Wind U/V - 56 vertical levels from FL050 to FL600
Temperature - 56 vertical levels from FL050 to FL600
Geospatial Height - 56 vertical levels from FL050 to FL600
Relative Humidity - 14 vertical levels from FL050 to FL180
Tropopause height and Tropopause temperature
Max wind height, and max wind u/v
Icing Severity - 26 vertical levels from FL050 to FL300
Turbulence Severity - 36 vertical levels from FL100 to FL450
Cumulonimbus Extent, Base and Top

WAFS SIGWX UPGRADE

- Annex 3 Amendment 82, **introduces higher resolution WAFS data into the SARPS in November 2025**.
- **WAFC's delivered this in February/March 2024**.

1.25-degree data sets maintained for those who need them:

Forecast Timesteps:
T+06 to T+36 at 3-hourly intervals

Wind U/V - 17 vertical levels from FL050 to FL600
Temperature - 17 vertical levels from FL050 to FL600
Geospatial Height - 17 vertical levels from FL050 to FL600
Relative Humidity - 5 vertical levels from FL050 to FL180
Tropopause height and Tropopause temperature
Max wind height, and max wind u/v

WAFS GRIDDED DATA UPGRADE

- Annex 3 Amendment 82 also introduces new **multi-timestep WAFS SIGWX forecasts into the SARPS in November 2025**.
- **WAFC's delivered this on 8 April 2025.**
- Multi-timestep SIGWX:
  - T+6 to T+48 at 3-hourly intervals
  - New IWXXM format
  - No briefing charts provided by the WAFCs.

Where to get the data - SADIS

- New SADIS API
  - ◊ Contains the **full, new, higher resolution** WAFS data sets
  - ◊ Contains the **new multi-timestep WAFS SIGWX** forecasts

Full details can be found in **the SADIS API User guide** which details the **full set of WAFS gridded data** available.

SADIS API - USER GUIDE

First Edition — February 2024

Prepared by the ICAO Meteorological Panel Meteorological Operations Working Group (WG MOG)

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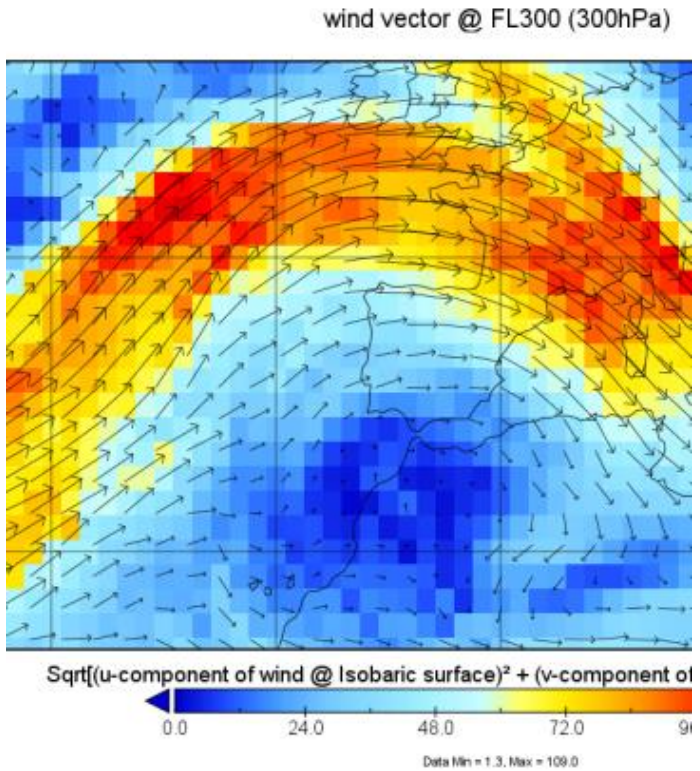
Original SADIS FTP

- Contains the **1.25-degree WAFS gridded data sets** and a **limited set** of 0.25 degree hazard data (fewer levels and timesteps).
- Contains the **T+24 SIGWX forecast charts and BUFR data**
- **Will be retired in November 2028.**

1.25 degree resolution



Access the SADIS API Services

- **To access the SADIS API, users, including previous SADIS FTP users, must:**

1. Review the service summary. Find full details in the SADIS API Services user terms and conditions and SADIS API Licence Agreement

2. Register your acceptance of the SADIS User Licence Agreement, click here to access the form

3. Email the SADIS manager to start the registration process

To SADIS Users

- The **SADIS user States /Organizations** make **plans to upgrade their systems to be able to :**
  - ◊ **Visualize the higher resolution WAFS gridded data sets and new IWXXM SIGWX data sets ;**and
  - ◊ **Use the new SADIS API.**

Thank You!

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