

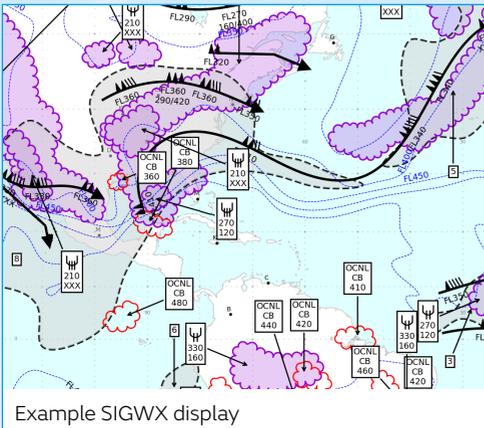


Changes to WAFS SIGWX Forecasts

In November 2024 the World Area Forecast System (WAFS) SIGWX charts will be changing as the London and Washington World Area Forecast Centres (WAFCs) introduce multi-timestep SIGWX forecasts for the first time.

What is new:

- Forecasts will be produced for T+6, T+9, T+12, T+15, T+18, T+21, T+24, T+27, T+30, T+33, T+36, T+39, T+42 and T+48 timesteps, four times daily.
- The SIGWX forecasts will span FL100 to FL600
- The SIGWX forecasts will include the following features:
 - Jet stream information
 - Tropopause height contours
 - MOD and SEV Turbulence areas (this includes clear air and orographic turbulence)
 - OCNL and FRQ cumulonimbus areas, and cumulonimbus top information
 - MOD and SEV Icing areas
 - Volcano, tropical cyclone and nuclear emergency markers
- This new data is designed for digital use where users can control the map projection, zoom level, colour schemes, and are able to toggle individual features on and off.
- The new SIGWX forecasts will be provided in IWXXM format and will need to be visualised by you or your software providers systems before you can use it for briefing purposes. IWXXM schema information is available here: <https://schemas.wmo.int/iwxxm/2023-1/>



Example SIGWX display

IWXXM Format

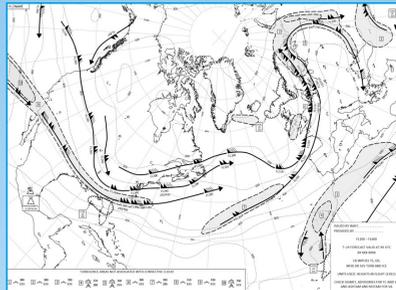
IWXXM SIGWX data is now available on the new SADIS API and WIFS APIs for testing and set up purposes.

Please contact the SADIS and WIFS provider for information: wifs.admin@noaa.gov or SADISManager@metoffice.gov.uk

Note: you may have seen earlier communications on changes to the WAFS SIGWX that involved retiring the medium-level SIGWX products in July 2024. This flyer supersedes that information.

What about the existing T+24 WAFS SIGWX charts?

- The medium and high level SIGWX charts for 17 map areas that are produced by WAFC London and WAFC Washington will continue to be produced until Nov 2028.
 - Medium level SIGWX will span FL100 to FL450
 - High level SIGWX will span FL250 to FL600 (note: there will be a small decrease in the upper limit from FL630 to FL600)



The appearance of the T+24 WAFC produced SIGWX charts will change a little:

- **Embedded (EMBD) cumulonimbus clouds will no longer be included which means that there will not be any areas of "ISOL EMBD CB"**, Only OCNL and FRQ amounts of cumulonimbus will be shown.
- Tropopause will be shown as contours (as a thin dashed line) instead of spot heights.
- CAT areas will become "Turbulence" areas, which encompasses CAT and orographic turbulence types. MOD and SEV Turbulence areas will be shown
- Cumulonimbus bases will not be shown in the cumulonimbus labels. These are almost always "XXX" even in the medium level SIGWX.
- On medium level SIGWX charts, the combined in-cloud icing and turbulence areas will be replaced with areas of MOD and SEV icing.
- Jet stream information, volcano, tropical cyclone and nuclear emergency markers will not change.

Further information on the upcoming SIGWX changes is available on at <https://www.metoffice.gov.uk/services/transport/aviation/regulated/wafs-2023/>

What do you need to do?

1. Make sure that your software provider or IT department is aware of the upcoming changes and encourage them to start setting up systems to pull test data from the new SADIS or WIFS API.
2. Upgrade systems to be able to visualise the new IWXXM format SIGWX data sets.

Users are encouraged to switch to using the new multi-timestep SIGWX forecasts as soon as possible after the go live date in November 2024 as the new SIGWX offers greatly improved situational awareness extending out to the T+48 forecast period as well as the ability to get SIGWX forecasts valid at the time of the flight which were produced from a more recently produced set of UK and US model data.

Note: ICAO Annex 3 will not reflect the new SIGWX forecasts until November 2025. The UK and US will be filing a difference against Annex 3 in November 2024 to facilitate the changes related to embedded cumulonimbus clouds that are described in this flyer.

Please contact wifs.admin@noaa.gov or SADISManager@metoffice.gov.uk for further information on the changes or to arrange access to the SADIS and WIFS APIs