

**AERONAUTICAL  
INFORMATION  
CIRCULAR (AIC)**

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## **CHANGES TO SIGNIFICANT WEATHER (SIGWX) CHARTS**

### **1. INTRODUCTION**

- 1.1 This AIC provides notification of planned changes to the Significant Weather (SIGWX) forecast charts, which will take effect on 23 January 2025.
- 1.2 From this date, the production of SIGWX charts at the World Area Forecast Centres (WAFC London and WAFC Washington) will be switched to an automated system. This change will affect the appearance of SIGWX charts produced by both the Bureau of Meteorology (the Bureau) and the WAFC. Details of these changes are outlined in Section 2.
- 1.3 The implementation of these changes will introduce differences between new SIGWX charts and the current provisions of *ICAO Annex 3 (Amendment 81)*. As a result, the World Area Forecast System (WAFS) Provider States are expected to file a difference with ICAO. These changes will be incorporated in *ICAO Annex 3 Amendment 82*, scheduled for applicability in November 2025.
- 1.4 Operators and users of SIGWX charts are encouraged to familiarise themselves with these changes and take any necessary actions.

## 2. CHANGES TO THE APPEARANCE OF SIGWX CHARTS

- 2.1 Several changes will be introduced to selected features of the SIGWX High (SWH) charts.
- 2.2 It is important to note that SIGWX Medium (SWM) charts for the Australian regional provided by the Bureau will remain unchanged.
- 2.3 The key changes to the SWH charts are as follows:
- 2.3.1 SWH Charts for the Australian Region (provided by the Bureau)
- a) **Embedded Cumulonimbus (CB) clouds:** Areas of isolated (ISOL) embedded cumulonimbus clouds will no longer be shown and therefore, “ISOL EMBD CB” will not appear. Only areas of “OCNL CB” (occasional cumulonimbus cloud, with spatial coverage between 50% and 75%) and “FRQ CB” (frequent cumulonimbus cloud, with spatial coverage greater than 75%) will be shown.
  - b) **Turbulence:** Clear Air Turbulence (CAT) areas will now be shown as general turbulence areas, encompassing CAT, in-cloud turbulence (excluding turbulence caused by convective cloud) and orographic turbulence.
  - c) **Upper limit:** will change from FL630 to FL600.  
*Note: The data underlying the charts will continue to extend to FL630 until further notice from the WAFC.*
- 2.3.2 SWH for ICAO Areas (provided by the WAFC)
- a) All changes outlined in para 2.3.1 will apply.
  - b) **Tropopause representation:** Tropopause information will be shown as contours of thin dashed lines instead of spot heights.
- 2.4 There will be no change on any SIGWX charts to the depiction of jet streams, tropical cyclones, or the location of volcanic eruptions and release of radioactive materials.
- 2.5 Refer to Appendix 1 for a comparison of SWH charts before and after these changes.
- 2.6 In addition to the charts, digital SWH forecasts will be produced by the WAFC for T+6 to T+48 at 3 hourly intervals, 4 times daily, in IWXXM format.

### **3. MORE INFORMATION**

- 3.1 The Bureau will update the SIGWX brochure, available in the Product Information section of the Bureau's Aviation Knowledge Centre: <http://www.bom.gov.au/aviation/knowledge-centre/>

### **4. CANCELLATION**

- 4.1 This AIC is expected to be cancelled mid-2025.

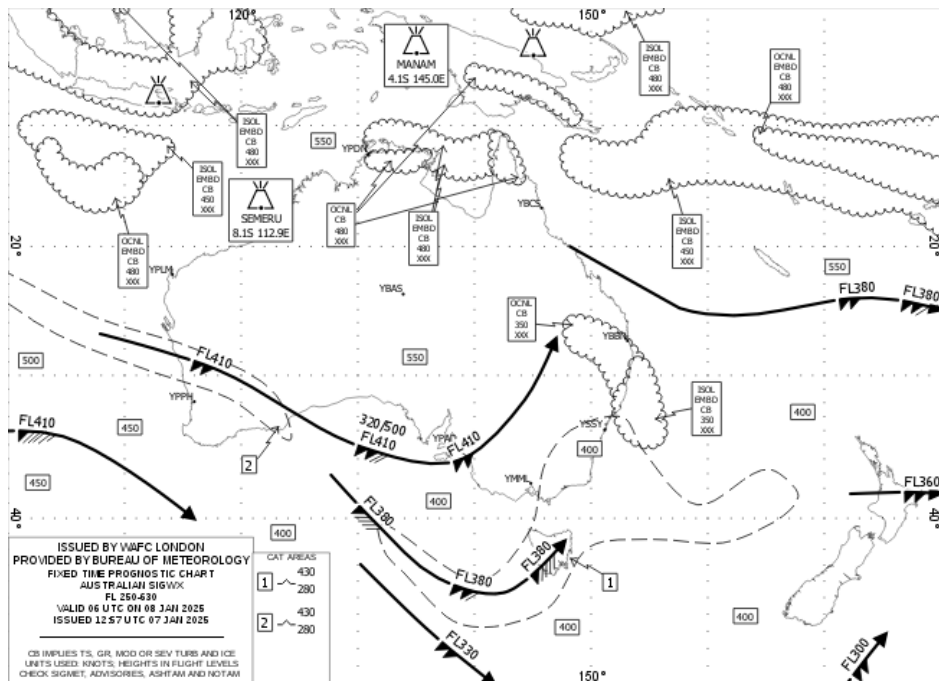
### **5. DISTRIBUTION**

- 5.1 Airservices Australia website only.

### **Appendices**

1. SIGWX High Chart before 23 January 2025
2. SIGWX High Chart after 23 January 2025

1. SIGWX High Chart before 23 January 2025



**2. SIGWX High Chart after 23 January 2025**

