



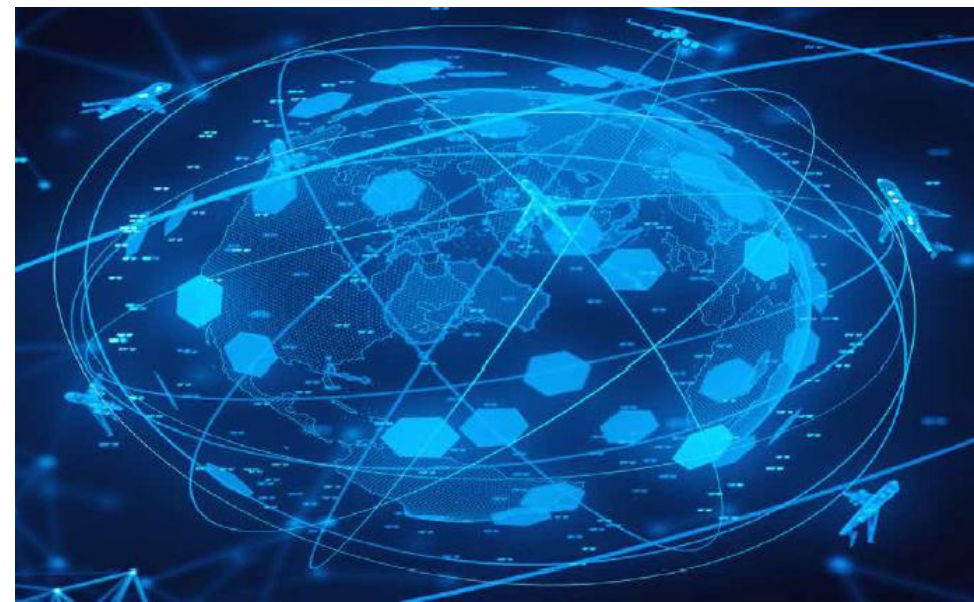
The Bureau
of Meteorology

Australia's status and plans for SWIM

Tim Hailes: National Manager, Transport Customer Engagement
Bureau of Meteorology

Current Status of SWIM Services

- The Bureau has been
 - producing the following MET products in IWXXM form since November 2020
 - Observations: METAR/SPECI
 - Forecasts: TAF
 - Warnings/Advisories: AIRMET, SIGMET, Volcanic Ash, Tropical Cyclone and Space Weather Advisories
 - distributing IWXXM via AMQP on trial basis since 2024
 - distributing IWXXM via AMQP operationally since July 2025
 - Ingesting WAFS data from SADIS SWIM API on trial basis since Nov 2025
 - Planning the implementing of new SWIM systems which support
 - AMQP for publish/subscribe services
 - OGC Environmental Data Retrieval (EDR) API for request/reply services

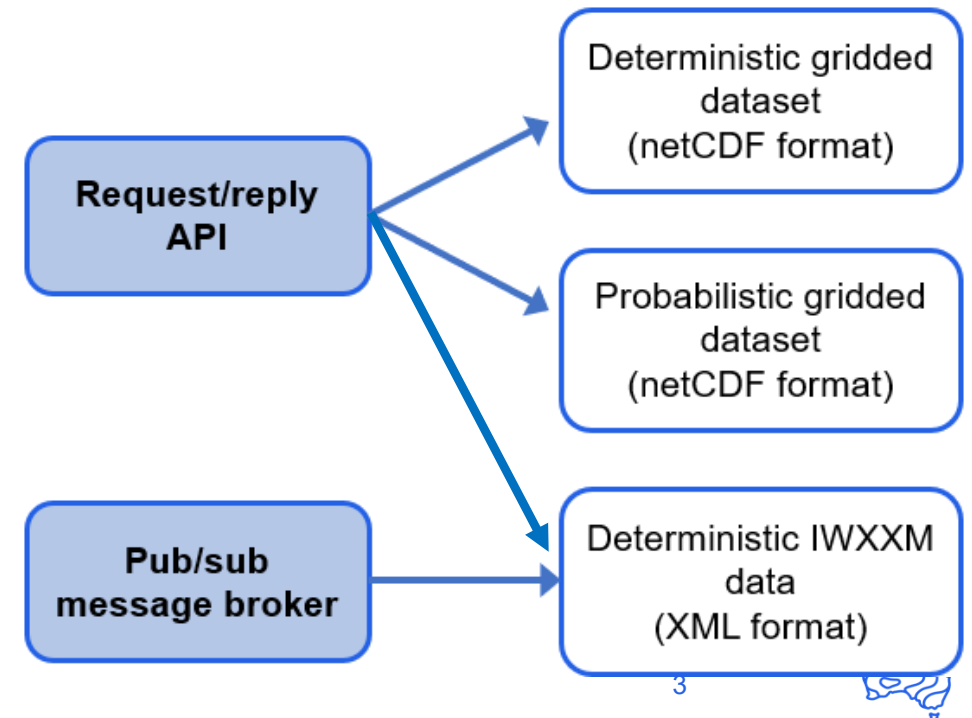


Next Steps

- Bureau of Meteorology has projects planning to implement the following SWIM services
 - WAFS data ingestion during 2027
 - Quantitative Volcanic Ash Information Service (QVA) by November 2026
 - Aerodrome Meteorological Observation Information Service (AMOIS) ~2028/29
 - Aerodrome Meteorological Forecast Information Service (AMFIS) by November 2030
 - Hazardous Weather Information Service CB Analysis ~2027/28

MET-SWIM data distribution (e.g. QVA)

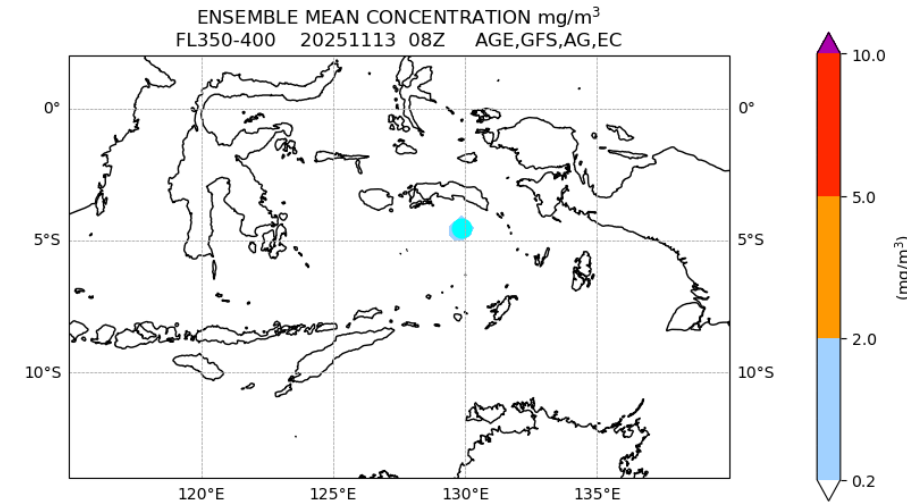
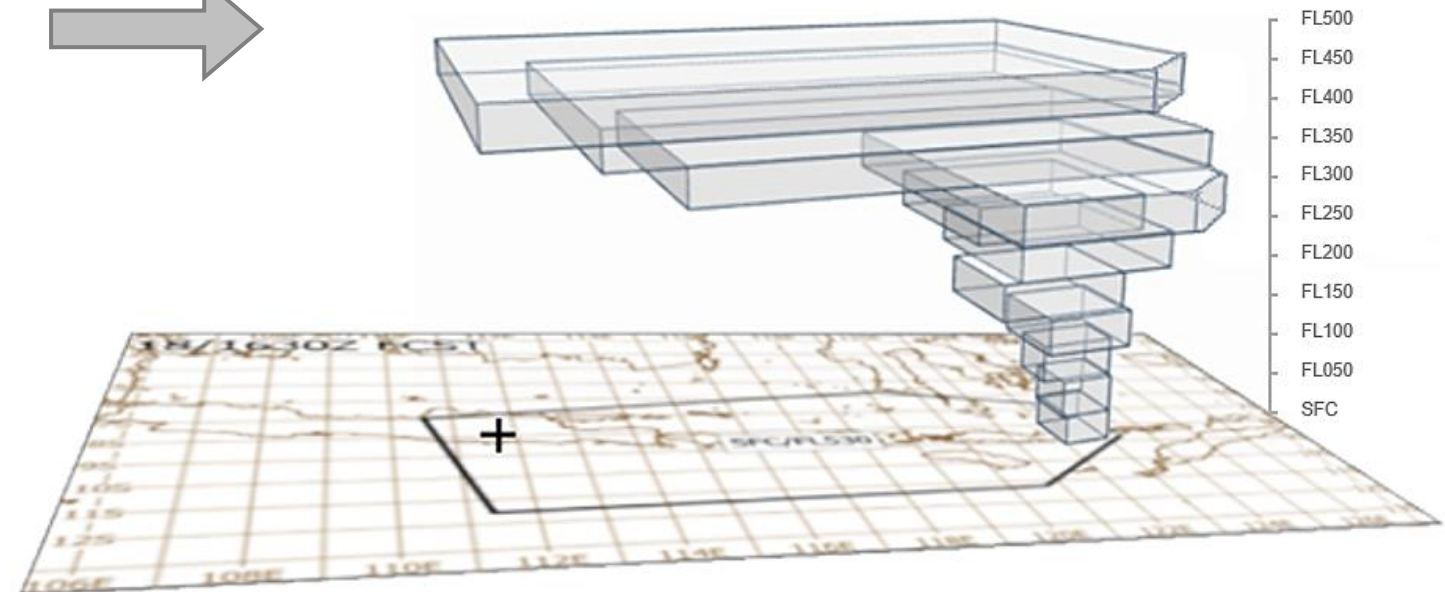
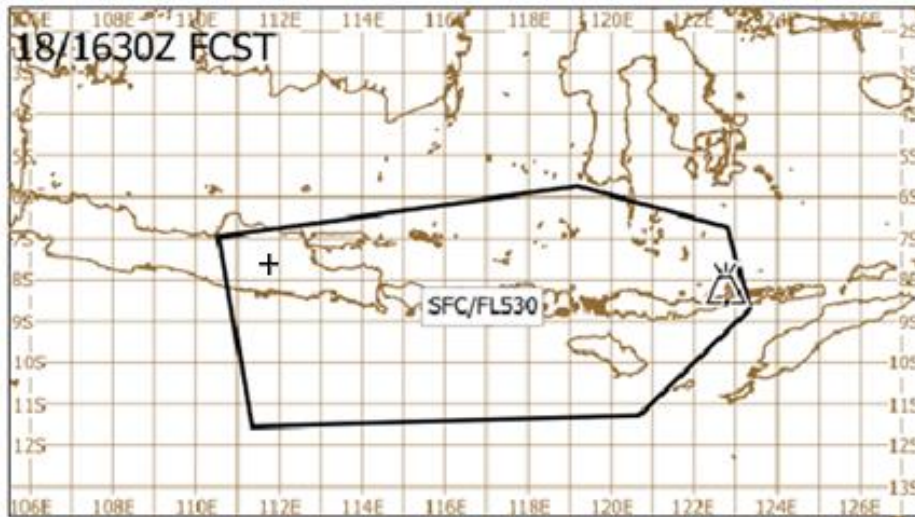
- Provided to customers via the following delivery channels:
 - request/reply API: gridded datasets & on demand IWXXM
 - publish/subscribe message broker: notification of QVA issuance and IWXXM data
 - customers will need to develop their own systems to ingest the QVA & other IWXXM data



QVA service value

Current and future state

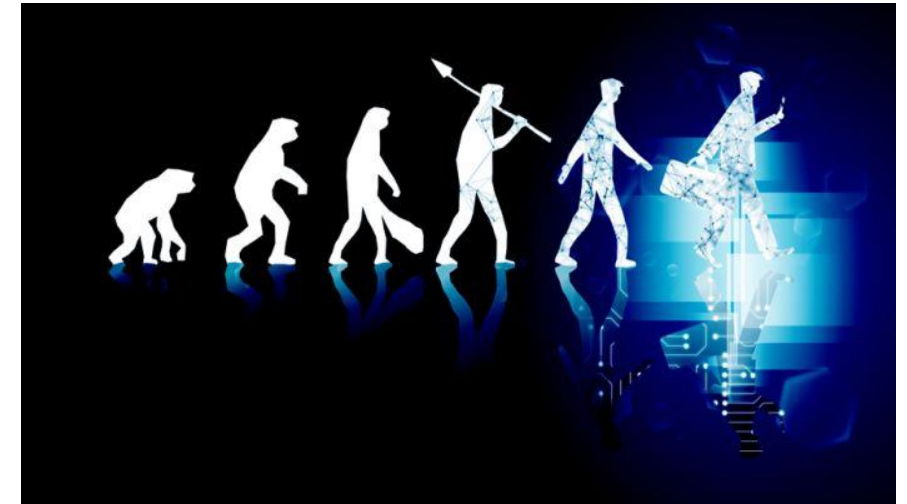
- currently issue '2-dimensional' representation of presence of volcanic ash
- QVA introduces '3-dimensional' data representing volcanic ash clouds



Future considerations & next steps

Broader Australian SWIM context:

- Australia recognises the importance of initiating foundational activities to support SWIM adoption, collaborating with immediate neighbours to align on SWIM
- As the adoption of SWIM will span multiple aviation agencies within Australia, coordination has commenced on the development and evaluation of a SWIM Proof of Concept (PoC) between relevant agencies
- While still in its early phases, the PoC focuses on jointly building understanding and assessing high-level solution concepts
- Delivery timelines and future implementation commitments have not yet been formalised.
- Australia is in the process of establishing a cross agency SWIM Working Group and governance arrangements around SWIM services



Questions?

