



Extensible Aviation MET Information

OPMET Transition from TAC to IWXXM

2016 - 2021

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Operational Baseline

1. NAIPS provides most MET services
 - NIS exposes UI directly to pilots for basic pre-flight briefing (tailored OPMET and NOTAM)
 - NIS exposes web services to commercial flight planning service providers offering enhanced pre-flight briefing (fuel calculations)
 - NAIPS provides MET services to ATC, in-flight briefings
 - Australian Regional OPMET Databank (RODB)
2. NAIPS MET database
 - OPMET received from Australian and international MET authorities as TAC over AFTN
 - ROBEX performed via AFTN
 - Wx Charts, GRIB1 (converted from WAFC GRIB2) received from Australian MET authority over IP
3. No action taken in response to Amendment 76 of Annex 3

Leading up to Amendment 77

4. Feedback from MARIE-PT (pre ANC/12 precursor to ICAO MET Panel) interpreted as meaning that all ROBEX OPMET exchange was to use IWXXM by November 2016 (77) and all international OPMET exchange was to use IWXXM by 2018 (78).
5. Australian MET authority had no intention of generating IWXXM variants of OPMET.
6. No consumer of MET services able to utilise IWXXM rather than TAC
7. Proposal raised in 2014 responding to above to:
 - Upgrade AFTN circuits to RODBs (Fiji and Singapore) to AMHS to enable ROBEX using IWXXM
 - Obtain TAC/IWXXM baseline set (METAR/SPECI, TAF, SIGMET) converter to translate
 - Australian OPMET from TAC to IWXXM for international transfer and
 - international OPMET from IWXXM to TAC for domestic use

Leading up to Amendment 77

8. November 2015 MET Panel working group decreed that TAC products were not to be constructed from IWXXM for operational use
9. *Guidelines for the Implementation of OPMET Data using IWXXM, version 0.3, December 2015* described changes as:
 - Amendment 77 would recommend international exchange of an expanded baseline set of OPMET (VAA, TCA and AIRMET added to the list above) in IWXXM from November 2016; and
 - Amendment 78 would require this by 2018
10. Australian MET authority will now generate the IWXXM variants of the OPMET baseline set (expected to be operational mid-2017).

Publication of Amendment 77

11. Attachment E to state letter *AN 10/1.1-16/17* (received from ICAO on 20 April) guidelines included the following essential steps with applicability date of 10 November 2016:
- f) development of software modifications for disseminating METAR/SPECI, TAF, SIGMET, AIRMET, volcanic ash advisories and tropical cyclone advisories in digital form;
 - g) development of software modifications by service providers and users in order to ingest and take advantage of information provided in digital form;
 - *Note. The information provided in digital form will be in addition to the traditional alphanumeric products.*
 - j) testing of software encoding, decoding and the communications infrastructure for the exchange of digital information both nationally and as part of the global exchange within regional requirements; and
 - k) operational acceptance of software changes.

Response to Amendment 77

12. Australia is not able to implement the proposed changes by the applicability date:
 - MET authority will not be producing operational IWXXM variants of the OPMET baseline
 - Airservices and industry will not be exchanging and using these variants operationally.
13. The proposal submitted in 2014 is being re-scoped to:
 - enhance AAMS to receive IWXXM from foreign states (will be limited to Fiji and Singapore until other AFS connections are upgraded to AMHS)
 - re-route received IWXXM internationally as necessary and possible;
 - convert received Australian TAC OPMET to IWXXM for international dissemination and on-forward any Australian IWXXM products for international addresses (existing international TAC OPMET exchange continues unaffected).

Response to Amendment 77 and beyond

14. Achieving the above will not require instantiation of IWXXM products, it is not yet clear if this will be acceptable however as storing this data may be necessary to service international ROBEX requests for re-transmission. If storage is required, the relevant component of CADAS-AIMDB may suit (yet to be investigated).
15. Domestic transition:
 - Future ATM system is specified against both TAC and IWXXM
 - Airspace users are upgrading/replacing their systems but yet to provide dates for transition from TAC to IWXXM
 - Graphical pre-flight briefings commence November 2017 (will not use IWXXM, however will distribute XML data to commercial flight planning service providers).