International Civil Aviation Organization

FOURTEENTH MEETING OF THE ASIA/PACIFIC METEOROLOGICAL INFORMATION EXCHANGE WORKING GROUP (MET/IE WG/14)

Bangkok, Thailand, 7 – 9 March 2016

Agenda Item 4: Planning and implementation of digital exchange of meteorological information

OPMET ADDITIONAL PAPAMETERS

(Presented by Australia)

SUMMARY

This paper seeks to obtain information on any additional parameters that States may provide as part of their OPMET messages.

1. INTRODUCTION

1.1 The exchange of digital meteorological information, between States who wish to do so, was enabled as a recommendation for METAR, SPECI, TAF and SIGMET in amendment 76 to ICAO Annex 3 – *Meteorological Service to International Air Navigation*, in 2013.

> Extract from ICAO Annex 3, Appendix 3
> 2.1.3 **Recommendation**.— *METAR and SPECI should be disseminated, under bilateral agreements between States in a position to do so, in digital form, in addition to the dissemination of the METAR and SPECI in accordance with 2.1.2.*
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> Extract from ICAO Annex 3, Appendix 5
> 1.1.2 **Recommendation**.— *TAF should be disseminated, under bilateral agreements between States in a position to doso, in digital form, in addition to the dissemination of the TAF in accordance with 1.1.1.*
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> Extract from ICAO Annex 3, Appendix 6
> 1.1.6 **Recommendation.**— *Meteorological watch offices in a position to do so should issue SIGMET information in digital form, in addition to the issuance of this SIGMET information in abbreviated plain language in accordance with 1.1.1.*

1.2 If METAR, SPECI, TAF and SIGMET are disseminated in digital form, then Annex 3 requires that, as a standard, it shall be formatted in accordance with a globally interoperable information exchange model and shall use extensible markup language (XML)/geography markup language (GML). The digital form shall be accompanied by the appropriate metadata.

1.3 Guidance on the information exchange model, XML/GML and the metadata profile is provided in ICAO Doc. 10003 - *Manual on the Digital Exchange of Aeronautical Meteorological Information*.

1.4 In amendment 77 to ICAO Annex 3 – *Meteorological Service to International Air Navigation*, applicable in November 2016, the exchange of digital meteorological information for METAR, SPECI, TAF, SIGMET, AIRMET, Volcanic Ash Advisories (VAA) and Tropical Cyclone Advisories (TCA) will become a recommendation.

2. DISCUSSION

2.1 In preparation for the introduction of the digital exchange of meteorological information (IWXXM), the World Meteorological Organizations (WMO) Task Team on Aviation XML (TT-AvXML) developed an XML schema for METAR, SPECI, TAF, SIGMET and is finalizing the schema for AIRMET, VAA and TCA.

2.2 Many States have filed differences against ICAO Annex 3 – *Meteorological Service to International Air Navigation*, to include additional parameters in the Traditional Alphanumeric Code (TAC). Often these additional parameters are included as a remark (RMK) within the message.

2.3 Attachment A provides an example of additional parameters that Australia has in either the main body of the TAC message or within a Remark line appended to the TAC message.

2.4 Some States have a requirement for the continued provision of these additional parameters once IWXXM is implemented. Initially it was proposed that these additional parameters would not be supported within IWXXM.

2.5 The ICAO Meteorological Panel Working Group on Meteorological Information Exchange (MET/P WG-MIE) is looking to see what additional information States provide in their OPMET messages and is considering expanding the IWXXM schema to support the provision of these additional parameters as extensions. This would provide a globally consistent method of including such parameters.

3. ACTION REQUIRED BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper; and

b) provide Tim Hailes (t.hailes@bom.gov.au) with a list of additional parameters used by your State that you feel would be required to be exchanged within IWXXM (using Attachment B) prior to, or by the end of, the MET/IE WG meeting so that this information can be collated and submitted to METP WG-MIE for consideration.

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ATTACHMENT A – AUSTRALIA'S ADDITIONAL PARAMETERS

METAR & SPECI

Parameter	Description	Examples	METAR or Remark	State
RF…./…..	Rainfall in 10 minutes prior to observation and rainfall total since 9am local.	RF00.8/010.6	Remark	AUS
VIS:…	Visibility from automated sensors (where VIS given in METAR is from human)	VIS:0400	Remark	AUS
CLD:…	Cloud from automated sensors (where CLD given in METAR is from human)	CLD:OVC001	Remark	AUS
[plain language]	Information of operational significance to the aerodrome such as visible bushfires, convective weather	BUSHFIRE SMOKE TO NM VIS FLUCTUATING RAPIDLY TS TO NE MOVING W	Remark	AUS

Trend Forecast

Parameter	Description	Example	Trend or Remark	State

Aerodrome Forecast (TAF)

Parameter	Description	Example	TAF or Remark	State
INTER ddhh/ddhh	Variations from the forecast prevailing conditions expected to last for periods < 30 minutes in each instance and which, in the aggregate, are not expected to cover more than half the given period. (Used in a similar way to TEMPO).	INTER 2712/2715 …	TAF	AUS
TURB	Turbulence	FM250600 MOD TURB BLW 5000FT	Remark	AUS
T	Temperature	T 14 13 13 11	Remark	AUS
Q	Pressure (QNH)	Q 1016 1015 1013 1016	Remark	AUS

AIRMET

Parameter	Description	Example	AIRMET or Remark	State
FZ LVL	Freezing Level	FZ LVL FCST S OF 40S FL060 STNR	AIRMET	AUS
<free text>	Free text in the remark line to describe general area of AIRMET (corresponding to low level area forecast)	RMK: AREA 21 RMK: GAF VIC	Remark	AUS

SIGMET

Parameter	Description	Example	SIGMET or Remark	State
<free text>	Free text in the remark line to describe general area of SIGMET	RMK: ME	Remark	AUS

Volcanic Ash Advisory (VAA)

Parameter	Description	Example	VAA or Remark	State

Tropical Cyclone Advisory (TCA)

Parameter	Description	Example	TCA or Remark	State

ATTACHMENT B – ADDITIONAL PARAMETER TEMPLATE

METAR & SPECI

Parameter	Description	Examples	METAR or Remark	State

Trend Forecast

Parameter	Description	Example	Trend or Remark	State

Aerodrome Forecast (TAF)

Parameter	Description	Example	TAF or Remark	State

AIRMET

Parameter	Description	Example	AIRMET or Remark	State

SIGMET

Parameter	Description	Example	SIGMET or Remark	State

Volcanic Ash Advisory (VAA)

Parameter	Description	Example	VAA or Remark	State

Tropical Cyclone Advisory (TCA)

Parameter	Description	Example	TCA or Remark	State