International Civil Aviation Organization

WORKING PAPER

MEETING OF THE METEOROLOGY PANEL (METP)
WORKING GROUP MIE

FIRST MEETING

Montréal, Canada, 16 to 20 November 2015

Agenda Item 5: Job Card METP.004.01 – Inclusion of aeronautical information in the SWIM-enabled environment and further development of the SWIM concept relating to meteorology

IWXXM Test Messages

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SUMMARY

This paper describes the need to formalize the definition of and procedures involving IWXXM test messages to support the conduction of local, regional and global tests and exercises. These messages should be properly handled by the systems involved to ensure their intended purposes without interfering normal operations.

Action by the METP-WG/MIE is in paragraph 4.

1.   **INTRODUCTION**

1.1   IWXXM is a format for reporting aviation meteorological information with XML/GML. It enhances the description of information the message carries with the use of metadata and facilitates the ingestion of information from a machine perspective. To take full advantage of the migration from the current TAC to IWXXM formatted message, the future IWXXM messages have to conform strictly to the corresponding XML schemas.

2.   **DISCUSSION**

2.1   Currently TAC test messages may be used locally to check the proper operation of switching or displaying devices, or in regionally/globally exercises to confirm that people, procedures and systems are in place for an arrangement to function as regionally/internationally agreed. At the moment,

there is no provision for Annex 3 and WMO Abbreviated Headers to support the preparation and exchange of TAC test messages. Individual test or exercise, therefore, has to make up their own test messages. Normally distribution of these TAC test messages will be confined to those participating the test/exercise. To make sure that the intended or unintended recipients of TAC test messages have no valid information to be confused, either fictitious data will be used in preparing TAC test messages, or in some cases the content of the TAC test messages will be replaced by text strings annotating the test/exercise. For example, the following is a test TAC SIGMET message to be issued in the regional SIGMET-test in the APAC regions in Nov 2015:

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WVXXii CCCC YYGGgg
CCCC SIGMET Z99 VALID YYGGgg/YYGGgg CCCCCCCC
<<NAME>> FIR THIS IS A TEST SIGMET, PLEASE DISREGARD.
TEST VA ADVISORY NUMBER xx RECEIVED FM [name] VAAC AT YYGGggZ=
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2.2   As already expressed, it is envisaged that the requirement for IWXXM formatted messages to strictly conform to the respective XML schema will rule out the possibility to prepare IWXXM test messages outside the Annex 3 allowable context. Furthermore, the Annex 3 compliant IWXXM test messages so prepared are undisguisable from operational messages and unless tight distribution controls are in place, since digital messages are supposed to be handled by machine with decoded information rendered for human utilization, there runs a danger that these IWXXM test messages would enter the operational databases and may also have the risk of interfering proper interpretation and decision by end users.

3.   **CONCLUSION**

3.1   In order to meet the need to unambiguously conduct tests and exercises with aeronautical meteorological information in digital form, definitions of and procedures involving IWXXM test messages beyond existing provision for TAC are required.

4.   **ACTION BY THE METP-WG/MIE**

4.1   The METP-WG/MIE is invited to note the information of this document and consider the following recommendations:

> (i)   Enhance IWXXM to:
>
>> a. Include a "test" indicator to distinguish test messages from operational messages
>>
>> b. Allow the message creator to annotate test messages with information of the tests or exercises
>
> (ii)   Consult other groups for further requirements on test messages, including whether test messages can have a less restrictive requirement in conformance to Annex 3 to cater for the possible inclusion of fictitious data

(iii)   Promulgate proper procedures, through the publication of guidelines or SARPs, to handle test messages, including switching, storing and rendering of these messages and necessary isolation of test messages from operational ones