International Civil Aviation Organization

WORKING PAPER

Asia and Pacific (APAC)
Twenty-first Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/21)

Bangkok, Thailand, 27 to 29 March 2023

Agenda Item 5: Quality Control, monitoring and management of meteorological information exchange

IMPROVING AFTN/AMHS ACCESS FOR METEOROLOGICAL ORIGINATING STATIONS

(Presented by Australia)

SUMMARY

Australia is proposing increased access to AFTN/AMHS, for originators within its area of responsibility, to improve reliability and availability of OPMET products. The paper encourages the meeting to discuss other States doing the same.

1. INTRODUCTION

1.1 The ROBEX scheme consists of a number of actors with its main purpose to ensure the most efficient exchange of OPMET information. The telecommunication facilities used for the exchange of OPMET should be the aeronautical fixed service (AFS), of which AFTN and AMHS form the basis.

1.2 The efficiency of this exchange is only as good as the reliability of AFTN/AMHS access for the meteorological origination station, where the OPMET product starts its journey.

1.3 In some States within the Brisbane ROC area of responsibility access to AFTN/AMHS for meteorological originators is very limited, with workarounds in place to get OPMET products to the local NOC via email from where AFTN/AMHS creation occurs. Lacking a local NOC, this AMHS/AFTN entry point can also be the local Air Traffic Service provider.

2. DISCUSSION

2.1 The practice of emailing OPMET products by the meteorological originating station for them to be manually entered by a local party into an AFTN/AMHS user agent interface is prone to processing delays and errors, as can be determined from the annual monitoring of scheduled OPMET data exercise.

2.2 Australia has successfully practiced with automated email ingestion and conversion to AFTN with one partner in its area of responsibility. This has improved the timeliness of OPMET exchange, however this practice still uses email which is not appropriate.

2.3 Australia is currently exploring direct access to AFTN/AMHS by meteorological originating stations within the Brisbane ROC area of responsibility.

2.4 As the Brisbane ROC/RODB is operated by the same organisational unit as the national COM Centre several interface options are at its disposal to consider.

2.5 An AFTN/AMHS user agent is currently available, accessible through the internet and only requiring a local Java install at the user's end. This ensures a portable solution, however it will not support integration with existing systems. This AFTN/AMHS user agent is compatible with extended AMHS and can be used to receive IWXXM from other states.

2.6 Other options, but not directly available, would be a SOAP or Advanced Message Queuing Protocol (AMQP) interface with the state's Message Transfer Agent (MTA), providing options for integration at user's end.

2.7 User training and a user manual will be required to get the meteorological originator started. Configuration of the user interface will also help in limiting the interface by only allowing MET products to be originated.

2.8 Longer term, adoption of SWIM should ease the access difficulties to AFTN/AMHS for data originators but in the interim this solution could assist States who have issues gain access to AFTN/AMHS.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to

a. note the information in this paper; and
b. consider and discuss the appropriateness of Member States offering AFTN/AMHS access through their own systems to other Member States.