International Civil Aviation Organization

FLIMSY

Nineteenth Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/19)

Web-conference, 22 to 26 March 2021

Agenda Item 6: Guidance material related to meteorological information exchange

UPDATE TO ROBEX HANDBOOK FOR DISSEMINATION OF SPACE WEATHER ADVISORIES

(Presented by Australia)

SUMMARY

This paper presents a request to update the Regional OPMET Bulletin Exchange (ROBEX) Handbook to incorporate a Space Weather Advisory dissemination scheme.

1. INTRODUCTION

1.1 The ICAO Space Weather Advisory (SWXA) service is provided 24/7 by the designated ICAO Space Weather Centres (SWXCs), these being the Australia-Canada-France-Japan (ACFJ) consortium, the Pan-European Consortium for Aviation Space weather User Services (PECASUS) and the United States.

1.2 ICAO Council Decision 219-7 designated of the China-Russian Federation consortium (CRC) as a fourth global space weather centre which is likely to commence operations later this year.

1.3 Unlike other advisory services (Volcanic ash and tropical cyclones), each centre operates on a two-week rotational basis and provide global services.

1.4 SWXA's are disseminated through the aeronautical fixed service (AFTN/AMHS), following rules and recommendations from the World Meteorological Organisation (WMO) for transmission of such operational meteorological information including the usage of message headers.

2. DISCUSSION

2.1 Dissemination requirements of Space Weather Advisories were established between the three global service providers prior to commencement of the service on 7 November 2019. This dissemination does not follow any existing schemes from the APAC ROBEX Handbook.

2.2 To allow for all ROBEX scheme participants, including providers and users, it is suggested to add the Space Weather Advisory dissemination scheme to the ROBEX Handbook.

2.3 Suggested updates are as follows:

DISSEMINATION OF SPACE WEATHER ADVISORIES

3. Message Routing – Originating Region

3.1 Space Weather Advisory Centre (SWXC)

3.1.1 The SWXCs are the data originator. They produce the SWXA in TAC form and in IWXXM form. They will send the SWXA to their associated NOC.

3.2 National OPMET Centre (NOC)

3.2.1 The role of the NOC is to gather OPMET messages, compile national data into bulletins, validate the bulletin structure and to distribute them according to the regional distribution schema. As necessary, the NOC associated with the SWXC (the Originating NOC) will add the Bulletin (WMO) header and send it to all other SWXCs. The Originating NOC will also send the SWXA to its associated ROC via the AFS and will distribute, or make available via agreed State briefing services, the SWXA to users within its national area of responsibility (AOR).

3.3 Regional OPMET Centre (ROC)

3.3.1 An originating ROC is responsible for the collection of the SWXA from the originating NOC and for validation of the message format. The originating ROC will then disseminate the SWXA, via AFS, to the IROGs within its Region, to the RODBs within its Region, to all other ROCs within its Region and to SADIS/WIFS.

3.4 Inter-Regional OPMET Gateway (IROG)

3.4.1 The IROGs in the originating Regions are responsible for collection and dissemination of the SWXA to their partner IROGs in other Regions.

4. Message Routing – Receiving Region

4.1 Inter-Regional OPMET Gateway (IROG)

4.1.1 The receiving IROG is responsible for the collection of the SWXA and for the dissemination to its associated ROCs and RODBs in its Region.

4.2 Regional OPMET Centre (ROC)

4.2.1 A ROC will receive SWXA from other Regions via their IROG. In turn, the ROC will distribute the SWXA to all its associated NOCs.

4.3 National OPMET Centre (NOC)

4.3.1 The NOC will distribute, or make available via agreed State briefing services, the SWXA to users within its national area of responsibility (AOR). The distribution may be via a "Push" service

(e.g. AFTN, AMHS), a "pull" service (e.g. an internet-based briefing service) or by other methods agreed to within the State.

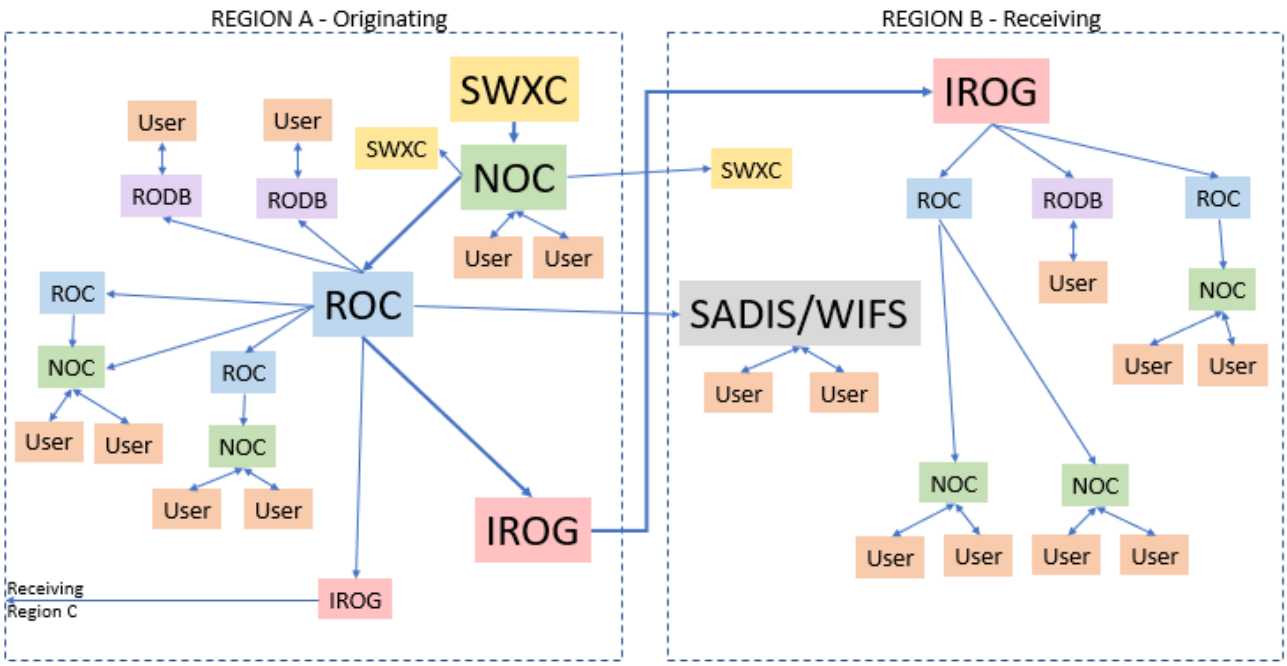
5. Data Access

5.1 User

5.1.1 It is the user's responsibility to ensure that they arrange for access to SWXA through their NOC or through SADIS/WIFS.

5.2 Regional OPMET Date Bank (RODB)

5.2.1 RODBs should provide the capability for users to interrogate information, such as the SWXA, through the AFS.



6. ACTION BY THE MEETING

6.1 Note the information contained in this paper.

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