International Civil Aviation Organization

WORKING PAPER

Asia and Pacific (APAC)
Twenty-second Meeting of the Meteorological Information Exchange Working Group (MET/IE WG/22)

Bangkok, Thailand, 18 to 21 March 2024

Agenda Item 6: Guidance material related to meteorological information exchange

ROBEX HANDBOOK UPDATE - METNO GUIDANCE

(Presented by Hong Kong China and Australia)

SUMMARY

This paper presents the proposed ROBEX Handbook updates for METNO guidance related to the timing of METNO message issuance and example of METNO message.

1. INTRODUCTION

1.1 MET/IE WG/21 – Filmsy/01 provides the description of issues concerning guidance on METNO identified in the ROBEX Handbook. APAC ROBEX Handbook, Appendix E was updated with the addition of General rules in METNO Procedure when the ROBEX Handbook was updated from the 13th to 14th edition published in 2022. As a result, inconsistencies or ambiguities were identified between the METNO procedures mentioned in *Section 13.1 - Changes to OPMET Bulletin Procedures* and *Appendix E Section 1 – METNO Procedures – General rules*.

1.2 The Meeting was informed that the ICAO Meteorology Panel (METP) Working Group on Meteorological Information Exchange (WG-MIE) was looking into developing a globally consistent procedure for METNO. There was a push to adopt the Europe procedure globally.

1.3 The Meeting tasked the Secretariat, Chair, Vice Chair and METNO focal points and invited the RODBs to keep abreast of the METP developments and develop a proposal to improve the APAC ROBEX Handbook for consideration by the MET SG with the following **ACTION MET/IE WG 21 – 15**.

ACTION ITEM	DESCRIPTION	RESPONSIBILITY
MET/IE WG/21 **15**	Keep abreast of the METP developments on METNO procedures and develop a proposal to improve the METNO procedure in the APAC ROBEX Handbook. [Ref: MET/IE WG/21 Report, para 6.19]	Secretariat, Chair, Vice Chair and METNO focal points and invited the RODBs

2. DISCUSSION

Timing of METNO message issuance

2.1 The following two paragraphs from 14th edition of ROBEX Handbook contains different descriptions for the timing of METNO message issuance. The General rules of METNO Procedure in Appendix E are consistent with the those for the EUR Region.

> **13.1. Changes to OPMET Bulletin Procedures**
> 13.1.3. Notification via AFTN/AMHS should be done by means of a METNO message, which is to be sent by the originating ROC to all other ROCs and to the respective IROGs in the other ICAO regions two weeks prior to the implementation date. The format of the METNO message is given in *Appendix E.*
>
> **Appendix E**
> **1. METNO Procedure – General rules**
> 1.5. At 21 days after the preceding (7 days before the upcoming) AIRAC date, the FP shall announce the list of accepted amendments to the ICAO Regional Office, the NOCs by means of a standard formatted METNO message for routine meteorological information sent via Aeronautical Fixed Service (AFS - SADIS and WIFS by their regional associated ROC).

2.2 To avoid the ambiguity in the timing of METNO message issuance and invite readers to refer to Appendix E for the General rules of METNO Procedure as far as possible, the following update to para. 13.1.3 of ROBEX Handbook is proposed:

> **13.1. Changes to OPMET Bulletin Procedures**
> 13.1.3. Notification via AFS ~~AFTN/AMHS~~ should be done by means of a METNO message, which is to be issued ~~sent~~ by the originating ROC to all other ROCs and IROGs within the APAC Region ~~to the respective IROGs in the other ICAO regions two weeks~~ 7 days prior to the implementation date (AIRAC date). IROG Singapore and IROGs Tokyo/Nadi should then route the METNO to SADIS and WIFS respectively. The general rules of METNO procedure and the format of the METNO message are ~~is~~ given in *Appendix E.*

Example of METNO message

2.3 Example of a METNO message is no longer available in Appendix E, as it was removed when ROBEX Handbook was updated from 13th to 14th edition. It is proposed to add an example of METNO message back in Appendix E, similar to the one in European METNO procedure (**APPENDIX A** to this paper). The example includes the use of "ADDRPT" and "RMVRPT" for adding for removing aerodromes in the existing OPMET bulletins.

2.4 The proposed update to APAC ROBEX Handbook to add an example for METNO message is provided in **APPENDIX B** to this paper for consideration by the meeting. METNO example in APPENDIX B could be added at the end of **2. Format and Content of the METNO-message of Appendix E** of APAC ROBEX Handbook. The example of METNO message would serve as a useful reference for ROCs to prepare a correct METNO message.

Sender of METNO message and METNO process

2.5 In the current version of ROBEX handbook, the METNO Process Diagram in Section 4 of Appendix E indicated that the sender of METNO is "Regional Focal Point". The sender of METNO should be ROC according to the Version 5 of the *Guidelines for the Implementation of IWXXM Exchange* (IWXXM Guidelines). It is proposed to replace the METNO Process Diagram to align the sender of METNO and METNO process with the latest version of the IWXXM Guidelines, as shown in **APPENDIX C** of this paper.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information in this paper;

b) review and consider the proposed updates to APAC ROBEX Handbook in para. 2.2, 2.4 and 2.5.

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APPENDIX A - Example of METNO message extracted from EUR OPMET Data Management Handbook - 13th edition, revised December 2023

11. ATTACHMENT 3 – Syntax of the METNO Message with Example

Item	**Example (fictitious): AFS**
AMHS Priority	Normal
AMHS Addressees of ROC Centres+ ICAO European Office	C=XX/A=ICAO/P=EG/O=AFTN/OU1=EGZZWPXX C=XX/A=ICAO/P=FRANCE/O=LFLF/OU1=LFLF/CN=LFLFYBYX C=XX/A=ICAO/P=AUSTRIA/O=LOVV/OU1=LOWM/CN=LOWMMMXX C=XX/A=ICAO/P=RUSSIA/O=UU/OU1=UUUJYZYA
AMHS Origin	C=XX/A=ICAO/P=BELGIUM/O=EBBR/OU1=EBBB/CN=EBBBYFYX
Abbreviated header	NOBX99 EBBR YYGGgg
Message Identifier (METNO)+ Product Description (EUR OPMET)+ AIRAC Date (YYMMDD)	METNO EUR OPMET YYMMDD
New Bulletin: **NEWBUL TTAAii CCCC Locind**(s), or **NEWBUL TTAAii CCCC FIR/UIR** for Non-Routine bulletin where applicable	NEWBUL FCMJ31 LWSK LWSK LWOH NEWBUL WVCZ31 LKPR LKAA
Delete Bulletin: **DELBUL TTAAii CCCC,** or **DELBUL TTAAii CCCC FIR/UIR** for Non-Routine bulletin where applicable	DELBUL FTOS31 LOWM DELBUL WSRA31 ALAK UATT
Add Report to existing Bulletin: **ADDRPT TTAAii CCCC Locind**(s)	ADDRPT FCTU33 LTAA LTAJ LTCF LTCI LTFH
Remove Report from existing Bulletin: **RMVRPT TTAAii CCCC Locind**(s)	RMVRPT FCSN31 ESWI ESOW ESSA ESSB ESSP ESSV
End of METNO	END

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GG EBZZYBYX EGZZWPXX LFLFYBYX LOWMMMXX LFPSYAYU
121420 EBBBYFYX
NOBX99 EBBR 121420
METNO EUR OPMET 060119
NEWBUL FCMJ31 LWSK LWSK LWOH
NEWBUL WVCZ31 LKPR LKAA
DELBUL FTOS31 LOWM
DELBUL WSRA31 ALAK UATT
ADDRPT FCTU33 LTAA LTAJ LTCF LTCI LTFH
RMVRPT FCSN31 ESWI ESOW ESSA ESSB ESSP ESSV
END
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— END OF SECTION —

APPENDIX B – Proposed update to APAC ROBEX Handbook for adding METNO message example (to be added at the end of **2. Format and Content of the METNO-message of Appendix E** of APAC ROBEX Handbook)

2.4 METNO message format (Example)

Item	**Example (fictitious): AFS**
AMHS Priority	Normal
AMHS Addressees of ROCs and RODBs	C=XX/ADMD=ICAO/PRMD=CHINA/O=HQ/OU1=ZBBB/CN=ZBBBYPYX/ C=XX/ADMD=ICAO/PRMD=VC/O=AFTN/OU1=VCCCYPYX/ C=XX/ADMD=ICAO/PRMD=INDIA/O=VIDD/OU1=VIDP/CN=VIDPYPYX/ C=XX/ADMD=ICAO/PRMD=HONGKONG/O=HKGCAD/OU1=VHZZ/CN=VHZZYPYX/ C=XX/ADMD=ICAO/PRMD=REP-KOREA/O=RKSS/OU1=RKSI/CN=RKSIYPYX/ C=XX/ADMD=ICAO/PRMD=INDONESIA/O=WIII/OU1=WIZZ/CN=WIZZYPYX/ C=XX/ADMD=ICAO/PRMD=INDIA/O=VECC/OU1=VECC/CN=VECCYPYX/ C=XX/ADMD=ICAO/PRMD=OP/O=AFTN/OU1=OPZZYPYX/ C=XX/ADMD=ICAO/PRMD=MALAYSIA/O=WM/OU1=WMZZ/CN=WMZZYPYR/ C=XX/ADMD=ICAO/PRMD=INDIA/O=VABB/OU1=VABB/CN=VABBYPYX/ C=XX/ADMD=ICAO/PRMD=NZ/O=NZCH/OU1=NZZZ/CN=NZZZYPYX/ C=XX/ADMD=ICAO/PRMD=THAILAND/O=VTBB/OU1=VTBB/CN=VTBBYPYX/ C=XX/ADMD=ICAO/PRMD=AUSTRALIA/O=YBBN/OU1=YBBB/CN=YBBBYPYX/ C=XX/ADMD=ICAO/PRMD=FIJI/O=NFFN/OU1=NFFN/CN=NFFNYPYX/ C=XX/ADMD=ICAO/PRMD=SINGAPORE/O=CAASG/OU1=WSZZ/CN=WSZZYPYX/ C=XX/ADMD=ICAO/PRMD=RJ/O=AFTN/OU1=RJTDYPYX/
AMHS Origin	C=XX/ADMD=ICAO/PRMD=SINGAPORE/O=CAASG/OU1=WSSS/CN=WSSSYPYX/
Abbreviated header	TTAA99 CCCC YYGGgg Example: NOSR99 WSSS 180200
Message Identifier (METNO)+ Product Description (APAC OPMET)+ AIRAC Date (YYMMDD)	METNO APAC OPMET 240321
New Bulletin: **NEWBUL TTAAii CCCC Locind**(s), or **NEWBUL TTAAii CCCC FIR/UIR** for Non-Routine bulletin where applicable	NEWBUL FTSR33 WSSS WBSB WBGB WBGG WBGR WBGS WBKK WBKL WBKS WBKW
Delete Bulletin: **DELBUL TTAAii CCCC,** or **DELBUL TTAAii CCCC FIR/UIR** for Non-Routine bulletin where applicable	DELBUL FTSR34 WSSS
Add Report to existing Bulletin: **ADDRPT TTAAii CCCC Locind**(s)	ADDRPT FTSR31 WSSS WAAA WABB WIMM ADDRPT FTSR32 WSSS WMKJ WMKK WMKL WMKM WMKP WMSA
Remove Report from existing Bulletin: **RMVRPT TTAAii CCCC Locind**(s)	RMVRPT FTSR31 WSSS WMKK WMSA WMKP WMKJ RMVRPT FTSR32 WSSS WBSB WBKK WBGG WIMM
End of METNO	END

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GG ZBBBYPYX VCCCYPYX VIDPYPYX VHZZYPYX RKSIYPYX WIZZYPYX VECCYPYX
OPZZYPYX WMZZYPYR VABBYPYX NZZZYPYX VTBBYPYX YBBBYPYX NFFNYPYX
WSZZYPYX RJTDYPYX
180200 WSSSYPYX
NOSR99 WSSS 180200
METNO APAC OPMET 240321
NEWBUL FTSR33 WSSS WBSB WBGB WBGG WBGR WBGS
                   WBKK WBKL WBKS WBKW
DELBUL FTSR34 WSSS
RMVRPT FTSR31 WSSS WMKK WMSA WMKP WMKJ
ADDRPT FTSR31 WSSS WAAA WABB WIMM
RMVRPT FTSR32 WSSS WBSB WBKK WBGG WIMM
ADDRPT FTSR32 WSSS WMKJ WMKK WMKL WMKM WMKP WMSA
END
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APPENDIX C – Proposed update to METNO process in Section 4 of Appendix E of APAC ROBEX Handbook

4. METNO Process ~~Diagram~~

Minimum date before	Action	Subsequent activity/ additional notes
29 days	NOCs wishing to make changes send planned changes to ROC	Via email
28 days	ROC collect changes in their area	usually by email/AFS
21 days	ROC sends collated changes to regional FP	FP reviews changes and shares with their regional group (usually RODBs & ROCs), usually by email/AFS
7 days	ROCs provide the AFS routing (addressing) of newly METNO registered OPMET bulletins (TTAAii CCCC) to the: 1) ROCs within its Area of Responsibility 2) NOCs within its Area of Responsibility and when data is eligible for inter-regional distribution 3) inter-regional IROGs within its Area of Responsibility.	At this point the changes in the METNO are fixed as systems will start making changes in anticipation.
Day 0	**Operational changes go live**	**This must be on an AIRAC date**

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