

Updates on APAC Regional Guidance for Tailored MET Information and Services to Support ATM Operations

**Ad-hoc group (Australia, China, Hong Kong, China, Japan (rapporteur),
Republic of Korea, Singapore, Thailand, Vietnam and IATA)**

**May 2021
ICAO APAC MET/R WG/10**

Introduction

- **MET/R TF 4th meeting, held in 2015 in Tokyo, noted that 'ATM-tailored' MET information is required to comply with the Annex 3. However, the detailed technical specifications for the information are not to be specified in Annex 3.**
- **The meeting agreed to develop the regional guidance material, and ad-hoc group was tasked to develop a draft regional guidance material for tailored meteorological information to support ATM operations.**
- **The ad-hoc group continued to discuss and developed the draft of the regional guidance. The draft was endorsed at MET/R WG/8 and MET SG/23 and finally it was adopted at APANPIRG/29 as a new regional guidance.**

Introduction

Regional Guidance for MET to Support ATM

- **The regional guidance aims at fostering States' implementation and enhancement of MET information and services for ATM within APAC region.**
- **The guidance captures most of the necessary processes from preparatory to operational phases and has stepwise (process-wise) structure.**
- **Specific examples of MET information and services in some States are described in Appendix 1 of the guidance. Operational scenarios are provided in Appendix 2.**

Discussion

2.1 Format of Appendices

- **Pre-defined format**
 - **Maximum four pages per each example so that readers can easily grasp all the contents and compare each example. (MET/R WG/6 WP/05)**
- **The last MET/R 9th meeting noted;**
The format may need further revision in the future in order to accommodate the presentation of examples of more enhanced MET/ATM support activities in States.
- **The ad-hoc group reviewed this format and agreed that the format of Appendix 1 and 2 (operational scenario) be included in the main part of the guidance.**

Discussion

2.1 Format of Appendices

- Note for Appendix 1 and 2

- The example from each State for Appendix 1 should be up to four pages, following the format:
 1. ATM-tailored MET information and services
 - ✧ MET information and/or services for ATM, excluding OPMET information
 - ✧ One section for each MET information or service
e.g. Dedicated MET information, Participation in CDM, Briefing for ATM officers.
 2. Means of Provision
 - ✧ Means of MET information provision for ATM officers, such as dedicated information provision system
 3. Other useful information (if any)
 - ✧ Collaboration with ATM officers for MET information and/or services improvement (e.g. regular meeting, collaborative post event analysis)
 - ✧ Verification of MET information described in chapter 1.
 - ✧ Implementation history of ATM-tailored MET information and services, including how long it took to implement such information and services.
- The operational scenario from each State for Appendix 2 should be up to four pages.

Discussion

Update on the Regional Guidance

Contents of Regional Guidance for MET to Support ATM

Main Part

1. Introduction
2. Implementation procedures
3. MET information and services in support of ATM
4. Future progress in MET/ATM services

References, Acronyms

Note for Appendix 1 and 2

added

Appendix 1

Appendix 2

Discussion

2.2 Maintenance procedures / means of publication of the Guidance

- **Maintenance procedures** should be clarified in the main part of the guidance

Note for Appendix 1 and 2

➤ Maintenance procedure

- ✧ States, who wish to add or update their own examples or operational scenarios, would need to submit WPs describing the drafts of examples to MET/R WG for discussions and/or adoption.
- ✧ The ad hoc group of the MET/R WG is to consolidate the changes and seek MET SG's endorsement for updating the guidance.

Attachment A to the WP

Currently the ad-hoc group consolidate it first, and submit it to MET/R WG as one WP.

Discussion

2.2 Maintenance procedures / means of publication of the Guidance

- **Means of publication** should also be clarified in the main part of the guidance

Note for Appendix 1 and 2

➤ Means of publication

- ✧ Each example and operational scenario of Appendix 1 and 2 is published on the ICAO APAC website (APAC eDocuments) with separated PDF files considering the user's accessibility to the information.

Attachment A to the WP

- Ad-hoc group agreed to request ICAO APAC RO MET to consider the form of webpage where Appendix 1 and 2 are to be posted **as separated PDF files** from the main part of guidance.
- Example images of web pages are following slides for reference.

Schematic Image of a web page for Regional Guidance for Tailored MET to Support ATM

ICAO APAC edocuments website
<https://www.icao.int/APAC/Pages/eDocs.aspx>

by the ICAO Regional Office. The material in these documents is intended to replace relevant national instructions or explanatory material. Nothing in these documents should be taken as contradicting or conflicting with the relevant ICAO SARPs, procedures or other guidance issued by ICAO. The regional guidance documents are reviewed from time to time by APANPIRG and its contributing bodies and updates are published after approval by APANPIRG.

GEN AGA ATM CNS MET

Search:

Title	Version	Date
Meteorological information exchange		
IWXXM - Guidelines for OPMET Exchange	Fourth Edition	November 2020
ROBEX Handbook	Thirteenth Edition	March 2019
WIFS accounts and approving Officials - (APAC)		May 2015
Research and Development		
Regional guidance for tailored MET to support ATM	WORKING DRAFT	
Regional Guidance for Tailored MET to Support ATM	Version 1	June 2019
<ul style="list-style-type: none"> Appendix 1 Hong Kong, China Appendix 1 Japan Appendix 1 Singapore Appendix 1 Republic of Korea Appendix 2 		<ul style="list-style-type: none"> November 2020 July 2021 November 2020 July 2021 June 2019
Plan for MET in SWIM	First Edition	October 2018
SIGMET		
Asia/Pacific Regional SIGMET Guide	Eighth Edition	November 2020
Tsunami		
APAC Regional guidance on aerodrome warnings for tsunami		September 2016
Volcanic ash		
Volcanic Ash Exercise Directive - APAC VOLCEX 19/02		September 2019

PDF file

Appendix 1 Specific Implementation Examples

Hong Kong, China

1. ATM-tailored MET information and services

Under the agreement between the Hong Kong Observatory (HKO) and Civil Aviation Department (CAD), HKO provides a suite of ATM-tailored MET information and services in support of international air navigation.

1.1 Tactical Decision Products

1.1.1 Taking the opportunity of the replacement of CAD's Air Traffic Management System (ATMS), closer integration of tailored MET information with ATMS was realized to support ATC in tactical decision making. These include a) 10 layers of Constant Altitude Plan Position Indicator (CAPPI) imageries from 1 km to 10 km with range 256 km of the two Doppler weather radars in Hong Kong; and b) 1 layer of the HKO Aviation Thunderstorm Nowcasting System (ATNS) 1hr forecast for the assessment of the

1. Click each link and open the example of the each State

Regional Guidance for Tailored MET to Support ATM

[Appendix 1 Hong Kong, China](#)
[Appendix 1 Japan](#)
[Appendix 1 Singapore](#)
[Appendix 1 Republic of Korea](#)
[Appendix 2](#)

Discussion

2.3 Update on Appendix 1

Contents of Regional Guidance for MET to Support ATM

Main Part

1. Introduction
2. Implementation procedures
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4. Future progress in MET/ATM services

References, Acronyms

Note for Appendix 1 and 2

Appendix 1

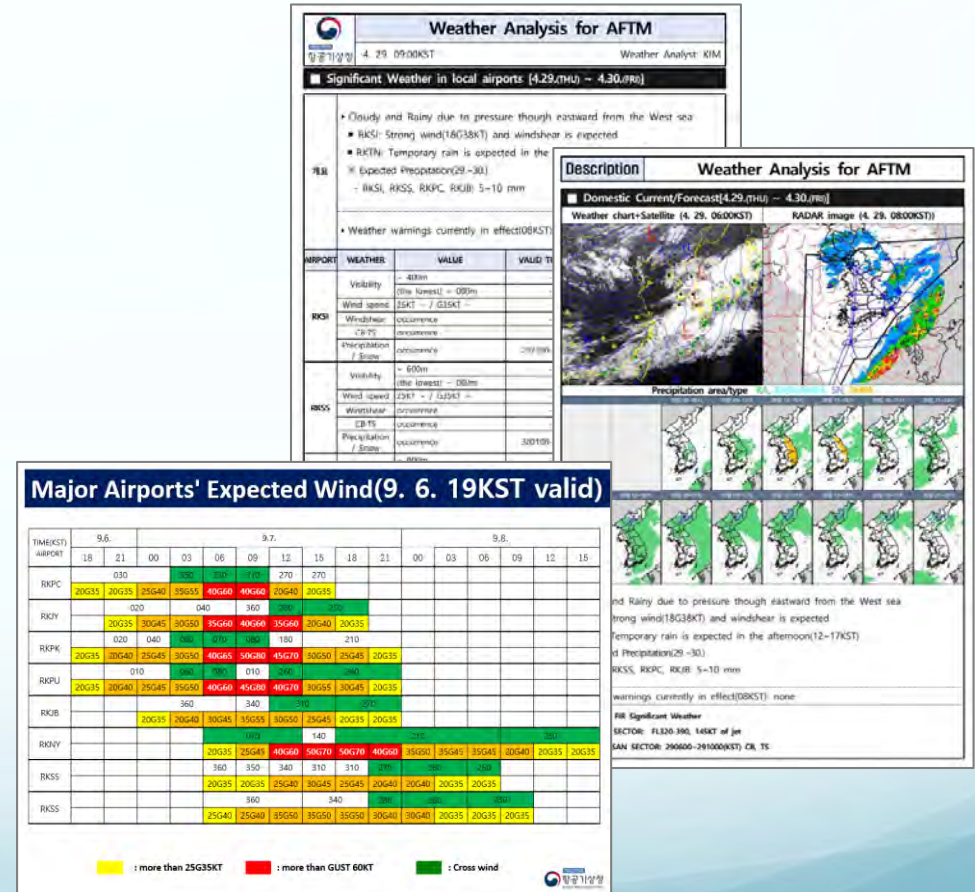
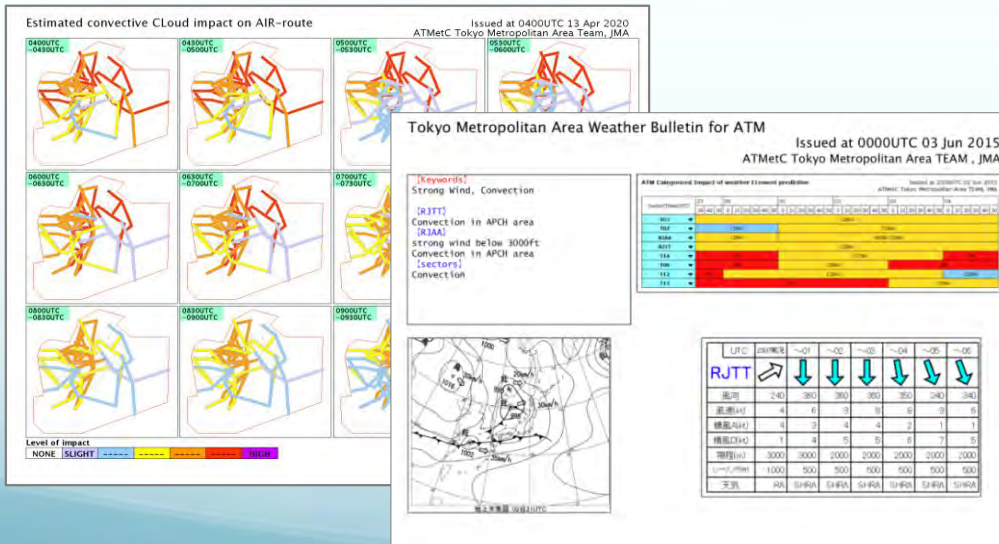
Appendix 2

update
States' examples

Update on Appendix 1

Updated based on further activities supporting ATM of the ad-hoc group members

- Update examples
 - Japan
 - Republic of Korea



Conclusion

- The meeting is invited to consider formulating following Draft Conclusion regarding the update of the Regional Guidance for possible adoption at MET SG/25 meeting

Draft Conclusion MET/R WG/10/x: *Update on Regional Guidance for Tailored Meteorological Information and Services to Support ATM Operations*

- a) The MET/R WG review the working draft guidance, which includes format of Appendix 1 and 2, the maintenance procedures and the means of publication, and provide comment to the ICAO RO MET no later than 11 June 2021; and
- b) The ad-hoc group, consisting of Australia, China, Hong Kong, China, Japan (rapporteur), Republic of Korea, Singapore, Thailand, Vietnam and IATA finalize the updated guidance for approval at the MET SG in July 2021.
- c) ICAO RO MET consider the form of web page.