



International Civil Aviation Organization

**FOURTH MEETING OF ASIA/PACIFIC METEOROLOGICAL
REQUIREMENTS TASK FORCE (MET/R TF/4)**

Tokyo, Japan, 2 – 3 July 2015

Agenda Item 1: Organizational matters

**REVIEW THE TERMS OF REFERENCE OF THE METEOROLOGICAL
REQUIREMENTS TASK FORCE**

(Presented by the Secretariat)

SUMMARY

This paper presents the terms of reference of the Meteorological Requirements Task Force for review by the meeting.

1. Introduction

1.1. A review of the terms of reference (TOR) of the Meteorological Requirements Task Force (MET/R TF) is necessary in order to ensure that close alignment is maintained with the Global Air Navigation Plan (GANP) and Aviation System Block Upgrade (ASBU) strategies and the regional priorities. The TOR should be clear and concise, describing not only the tasks, but also the expected target dates for their completion. Any updates to the TOR proposed by the meeting shall be presented to the Nineteenth Meeting of the Meteorology Sub Group (MET SG/19) in August 2015 for consideration and possible adoption.

2. Discussion

2.1. Originally, the Meteorology/Air Traffic Management Task Force (MET/ATM TF) was established by the Fifth Meeting of the Communications, Navigation and Surveillance/Meteorology Sub-group (CNS/MET SG/5), in its Decision 5/30, to assist in the development of regional guidance contained in Chapter 8, Meteorology, of the Regional CNS/ATM Plan.

2.2. The TOR of the MET/ATM TF underwent several iterative updates resulting from subsequent meetings of the CNS/MET SG (i.e., CNS/MET SG/7, CNS/MET SG/13, CNS/MET SG/14 and CNS/MET SG/15) in order to reflect the evolving requirements for meteorological (MET) information in the region in support of air traffic management (ATM).

2.3. In 2012, CNS/MET SG/16 reviewed the structure of all the MET-related task forces in the Asia/Pacific (APAC) region and, as a result of its Decision 16/34, the MET/ATM TF was

renamed as the Meteorological Requirements Task Force (MET/R TF) to more precisely reflect the key objectives.

2.4. The current TOR of the MET/R TF were last reviewed by MET SG/18, held in Beijing, China, from 18 to 21 August 2014. A copy of the TOR, including composition, description, communication strategies, performance framework, milestones and work plan is provided in **the Attachment** to this paper.

2.5. In accordance with the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG) Procedural Handbook, it is recommended that the TOR of the MET/R TF should be reviewed periodically to ensure that the MET/R TF remains focused on delivering the required outcomes; the TOR shall be clear and concise describing not only the tasks of the MET/R TF, but also the expected target dates for their completion.

2.6. Any recommendations for updates to the TOR proposed by the meeting will be forwarded to MET SG/19, to be held in Bangkok, Thailand, from 3 to 6 August 2015, for further consideration and possible adoption.

3. Action by the Meeting

3.1 The meeting is invited to:

- a) Note the information contained in this paper;
- b) Discuss any relevant matters where appropriate;
- c) Review the TOR of the MET/R TF; and
- d) Propose updates to the TOR of the MET/R TF where necessary.



**WORK PROGRAMME OF THE METEOROLOGICAL
REQUIREMENTS TASK FORCE (MET/R TF)**

1. TASK TEAM		
Secretariat	Address	Contact
Peter Dunda RO MET	International Civil Aviation Organization 252/1, Vibhavadee Road Ladyao, Chatuchak Bangkok 10900 Thailand	Tel: +66 (2) 537-8189 Ext. 153 Fax: +66 (2) 537-8199 E-mail: pdunda@icao.int
Shane Sumner RO ATM		Tel: +66 (2) 537-8189 Ext. 159 Fax: +66 (2) 537-8199 E-mail: ssumner@icao.int
Chair	Address	Contact
Mr Jun Ryuzaki JAPAN	Senior Scientific Officer, Administration Division, Forecast Department Japan Meteorological Agency 1-3-4 Otemachi, Chiyoda-ku Tokyo 100-8122 Japan	Tel: +81 (3) 3212 8341 ext. 3351 Fax: +81 (3) 3284 0180 E-mail: jryuzaki@met.kishou.go.jp
Members	Address	Contact
Mr. Michael I. Berechree AUSTRALIA	National Manager Aviation Weather Services Australian Bureau of Meteorology GPO Box 1289 Melbourne VIC 3001 Australia	Tel: +61 (3) 9669 4586 Fax: +61 (3) 9669 4695 E-mail: srav@bom.gov.au
Ms Zou Juan CHINA	Meteorologist Aviation Meteorological Center Air Traffic Management Bureau, CAAC P.O.Box 2272, Shilihe, Chaoyang District Beijing 100122 China	Tel: +86 (10) 67499893 Fax: +86 (10) 87922180 E-mail: zoujuan@atmb.net.cn juan_zou@yahoo.com
Mr. Li Luen On HONG KONG, CHINA	Chief Experimental Officer Hong Kong Observatory 134A, Nathan Road Tsim Sha Tsui, Hong Kong	Tel: +852 2926 8209 Fax: +852 2375 2645 E-mail: loli@hko.gov.hk
Mr. Peter Lechner NEW ZEALAND	Chief Meteorological Officer Civil Aviation Authority of New Zealand Asteron House, 55 Featherston Street Wellington New Zealand	Tel: +64 (4) 560 9593 Fax: +64 (4) 569 2024 E-mail: peter.lechner@caa.govt.nz
TBC RUSSIAN FEDERATION	TBC	TBC
Mr. Chow Kwok Wah SINGAPORE	Senior Meteorological Officer Main Meteorological Office Meteorological Service Singapore	Tel: +65 6542 4715 Fax: +65 6545 7192 E-mail: chow_kwok_wah@nea.gov.sg

MET SG/18
Appendix I to the Report

Mr. Steven Albersheim UNITED STATES	Federal Aviation Administration Senior Meteorologist, Programme Lead International, FAA Headquarters 800 Independence Ave, S.W. Washington, D.C. 20591 United States	Tel: +1 (202) 385 7185 Fax: +1 (202) 385 7240 E-mail: steven.albersheim@faa.gov
--	--	--

2. DESCRIPTION	
Objective	Improve safety, efficiency and sustainability of ATM and operators by providing MET information needed to meet current and future requirements.
Benefits	Increase efficiency – save time and fuel as well as reduce carbon emissions
Terms of Reference	<p>Under guidance from ICAO Secretariat:</p> <ul style="list-style-type: none"> a) Obtain and evaluate the current and future requirements for MET (including space weather) in support of ATM (includes ATFM), as well as ATM in support of MET, in the ASIA/PAC Region and update Regional Air Navigation Plan accordingly and provide guidance material to assist States to develop MET services to meet these requirements; b) Assess aeronautical meteorological services, systems and architecture in the region and how they can integrate weather information into ATM, airspace user systems and decision support tools; c) Investigate sub-regional exchange of MET information (including digital) and associated agreements that facilitate ATM operations particularly over busy routes that overlap different FIRs; d) Promote coordination between MET and ATM communities in the ASIA/PAC Region to enhance the level of understanding of MET requirements and capabilities in support of ATM; e) To study the successful involvement of MET in the development of CDM/ATFM in other regions with a view to future application in ASIA/PAC; f) Monitor regional implementation of global policies associated with source data and delivery of MET information for ATM; g) Coordinate with MET/H TF on framework for ATM contingency plan for specific phenomenon including volcanic ash, radioactive cloud, tropical cyclone and Tsunami with reference to developments made by the global ICAO groups and WMO developments; h) Coordinate with the ATFM/SG to provide expertise on MET services and information to assist the establishment of sub-regional ATFM and to identify what kind of MET services/information can be considered as the most important for it; i) Enhance regional implementation of MET services in support of ATM in line with the priorities defined in the ASIA/PAC Seamless ATM Plan, closely referring to the Global Air Navigation Plan (GANP) and the Aviation System Block Upgrades (ASBUs); and j) Report to the MET Sub-group of APANPIRG for further co-ordination through the ICAO Secretariat with other relevant bodies (ATM/SG, APSAPG, CNS/SG).

MET SG/18
Appendix I to the Report

3. COMMUNICATION STRATEGIES				
Description	Target Audience	Delivery Method	Frequency / Date	Responsibility
Work Plan	Task Force Members	Document via email	As required but reviewed at least quarterly	Chair
General correspondence	Task Force Members	Email	As required	Task Force Members
Task Force Meeting	Task Team Members	Meeting	As required, supplemented by teleconference	Chair
Status & Milestone Reports	ICAO Secretariat and Task Team Members	Report via email	At least half-yearly	Chair
Task Force Report	MET SG	Working Paper	Yearly	Chair

4. PERFORMANCE FRAMEWORK FORM (PFF)				
Tasks	Time Frame	Responsibility	Status	Milestone
Task 1: Conduct MET/R TF meeting to obtain regional MET requirements to support ATM	2013 (Nov)	MET/R TF	✓	1
Task 2: Conduct survey on regional ATM requirements for MET information	2014	MET/R TF secretariat	to commence	1
Task 3: Conduct MET/ATM seminar in coordination with WMO in 2013 to further develop list of possible regional MET requirements to support ATM	2013 (Nov)	MET/R TF	✓	1
Task 4: Assess aviation meteorological services, systems and architecture in the region and how they can integrate weather information into ATS/aircraft operator decision support tools	2013-2016	MET/R TF ATFM/SG	In progress	2
Task 5: Investigate sub-regional exchange of MET information and associated agreements that facilitate ATM operations particularly over busy routes that overlap different FIRs	2013-2016	MET/R TF ATFM/SG	In progress	3
Task 6: Facilitate implementation of Meteorological Services for the Terminal Area in coordination with ICAO expert groups and WMO ET-ISA	2013-2016	MET/R TF	In progress	4
Task 7: Monitor regional implementation of global policies associated with source data and delivery of MET information for ATM	2013-2016	MET/R TF	future	5

MET SG/18
Appendix I to the Report

5. MILESTONES			
Milestone	Accountability	Dates	Status
Milestone 1: Determine regional MET requirements for ATM	MET/R TF	MET SG/19	To begin
Milestone 2: Develop guidance material on how to provide/use weather information in support of ATM decision making tools	MET/R TF	MET SG/20	To begin
Milestone 3: Implement sub-regional exchange of MET information to facilitate ATM operations in busy routes	MET/R TF	TBD	To begin
Milestone 4: Develop regional implementation plan for the Meteorological Services for the Terminal Area	MET/R TF	TBD	future
Milestone 5: Implement global policies associated with source data and delivery of MET products for ATM	MET/R TF	TBD	To begin

6. WORK PLAN				
Activity / Milestone	Accountability	Predecessors	Date	Status
Activity 1: Develop regional MET requirements for ATM				
Activity 1.1: Conduct MET/R TF meetings and MET/ATM seminars to contribute in developing MET requirements for ATM	MET/R TF	-	Nov 13- completed (at least every 18 months)	In progress
Activity 1.2: Analyse existing surveys (e.g. ATFM survey) and develop new surveys, when necessary, to determine regional ATM requirements for MET	MET/R TF	-	2014	In progress
Activity 1.4: Recommend regional MET requirements for ATM to MET SG and AMOFSG (through direct membership) meetings	MET/R TF	-	Annual (AMOFSG – 18 months)	To begin
Milestone 1: Determine regional MET requirements for ATM				
Activity 2: Developing methods to use weather information in decision support tools				
Activity 2.1: Develop a list to guide States on the MET information or services necessary to support implementation of each element of the APAC Seamless ATM Plan, and report to the next meeting of the MET/R TF. Note: this should include requirements for aircraft reporting	Ad hoc group (Australia, China, Hong Kong, China, and Japan)	-	2015	To begin
Activity 2.2:		-		
Activity 2.3:		-		
Milestone 2: Develop methods to use weather information in decision support tools				

MET SG/18
Appendix I to the Report

Activity 3: Developing sub-regional exchange of MET information to facilitate ATM operations				
Activity 3.1: develop a proposal in close collaboration with the ROBEX WG and assisted by the Secretariat, for capacity building activities in the APAC region to foster the implementation of digital MET information exchange, and report to MET SG/18	Ad hoc group (Australia, Hong Kong, China, New Zealand and Singapore) ROBEX WG	-	July 2015	To begin
Activity 3.2: States develop agreements on the exchange of MET information that provides benefits to ATM operations on sub-regional level	States ATFM/SG	-		To begin In progress
Activity 3.3: States report developments to MET/R TF and MET SG meetings	States/ MET/R TF	3.2		To begin
Milestone 3: Develop sub-regional exchange of MET information to facilitate ATM operations in busy routes				To begin
Activity 4: Developing regional implementation plan for Meteorological Services for the Terminal Area				
Activity 4.1: Monitor developments of Meteorological Services for the Terminal Area	MET/R TF	-	Annual	In progress
Activity 4.2: Monitor Annex 3 relevant ICAO provisions developments	MET/R TF	4.1		future
Activity 4.3: Develop regional implementation plan for Meteorological Services for the Terminal Area	MET/R TF	4.2		future
Activity 4.4: Monitor regional implementation of Meteorological Services for the Terminal Area	MET/R TF	4.3		future
Activity 4.5: Report implementation progress to MET SG	MET/R TF	4.4		future
Milestone 4: Develop regional implementation plan for Meteorological Services for the Terminal Area				future
Activity 5: Implementing global policies associated with source data and delivery of MET products for ATM				
Activity 5.1: Implement global policies associated with source data and delivery of MET products for ATM	MET/R TF	-		To begin
Activity 5.2: Report results to MET/R TF and MET SG meetings	MET/R TF	5.1		future
Milestone 5: Monitor global policies associated with source data and delivery of MET products for ATM				