



International Civil Aviation Organization

**SEVENTEENTH MEETING OF THE METEOROLOGY
SUB-GROUP (MET SG/17) OF APANPIRG**

Bangkok, Thailand, 13 – 16 May 2013

Agenda Item 12: Performance Framework

UPDATE OF WORK PLAN OF WAFS TF

(Presented by Chairman, WAFS Task Force)

SUMMARY

This paper presents an update of the Work Plan of the WAFS Task Force (WAFS TF).

1. Introduction

1.1 The Work Plan of the WAFS Task Force (WAFS TF, the then WAFS Implementation Task Force (WAFS/I TF)) was developed at the 14th meeting of the CNS/MET SG (CNS/MET SG/14) of APANPIRG. It was last updated at the CNS/MET SG/16 meeting.

2. Discussions

2.1 Following Decision 16/34 of CNS/MET SG/16, the WAFS TF was reformed based on the then WAFS/I TF. The Work Plan of WAFS TF was subsequently updated and provided to the Secretariat by 24 August 2012.

2.2 Based on the progress in performing the tasks of WAFS TF in the past year, the Work Plan was recently revised and is given in **Appendix A**.

3. Action by the meeting

3.1 The meeting is invited to note the information provided in this paper.



ICAO APANPIRG /MET WAFS TASK FORCE (WAFS TF)

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2. DESCRIPTION	
Objective	Facilitate effective utilization of World Area Forecast System (WAFS) and associated services and products in the Asia Pacific Region.
Benefits	Improve the regional utilization of WAFS weather forecasts (including SIGWX forecasts, upper winds and upper-air temperatures, humidity, direction, speed and height of maximum winds and tropopause heights, as well as turbulence, icing, cumulonimbus clouds) used by airlines and ATM to optimize flight routes, which will enhance efficiency and reduce carbon emissions.
Terms of Reference	Under guidance from ICAO Secretariat: a) Facilitate the operational use of the WAFS in the Asia and Pacific Region; b) Promote awareness of current and future capabilities with respect to WAFS; c) Maintain awareness of the status of implementation of WAFS within the Asia and Pacific Region and any user State deficiencies; d) Monitor and evaluate the operational effectiveness of the use of WAFS datasets and products generated from those datasets; and e) Provide advice to the MET Sub-group on the above.
Work Program	The work to be addressed by the ASIA/PAC WAFS Task Force (WAFS TF) includes: a) Promoting the migration from GRIB1 to GRIB2 WAFS forecasts; b) Facilitating the utilization of gridded forecasts of icing, turbulence and CB clouds and providing user's feedback on the use of the gridded forecasts; c) Establishing training requirements for WAFS products; d) Consolidating guidance and information related to the implementation of WAFS and updates to WAFS services and products for easy reference by user States in the Asia and Pacific Region; e) Providing inputs (via the MET SG) to APANPIRG on the regional planning and development of WAFS for coordination with the WAFSOPSG; and f) Keeping the WAFS TF Work Plan up to date.

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 yearly	Chair
General correspondence	Task Force Members	Email	As required	Task Force Members
Task Force Meeting	Task Force Members	Meeting	As required, supplemented by teleconference	Chair
Status & Milestone Reports	ICAO Secretariat and Task Force Members	Report via email	At least yearly	Chair
Task Force Report	MET SG	Working/ Information Paper	Yearly	Chair
Task Force Report	APANPIRG WAFSOPSG	Working Paper	Yearly	Secretariat

4. PERFORMANCE FRAMEWORK FORM (PFF)				
Tasks	Time Frame	Responsibility	Status	Milestone
Task 1 : Facilitate the migration from GRIB1 to GRIB2 WAFS forecasts in the ASIA/PAC Region by November 2013.	2012 -2013	WAFS TF	In progress	1, 4, 5
Task 2 : Facilitate the implementation and utilization of gridded forecasts for icing, turbulence and CB clouds in the ASIA/PAC Region.	201 3 ² -201 8 ⁶	WAFS TF	In progress	2, 4, 5
Task 3 : Establish training requirements in WAFS products in the ASIA/PAC Region and provide this information to the WAFSOPSG.	201 3 ² -201 8 ⁷	WAFS TF	In progress	3, 5
Task 4: Maintain and distribute WAFS service reference document to ASIA/PAC States	201 3 ² -201 8 ⁷	WAFS TF	In progress	4
Task 5: Monitor the implementation and utilization of WAFS (including SADIS/Secure SADIS FTP/WIFS services) and training needs within the ASIA/PAC Region, and report to MET SG	201 3 ² -201 8 ⁷	WAFS TF	In progress	5, 6

5. MILESTONES			
Milestone	Accountability	Dates	Status
Milestone 1: Monitor the migration from GRIB1 to GRIB2 WAFS forecasts in ASIA/PAC Region	WAFS TF	16 ⁷ May 13 (until cessation of GRIB1 data) Annual	In progress
Milestone 2: Monitor the performance and utilization of new gridded forecasts for icing, turbulence and CB clouds	WAFS TF Chair	17 May ^{Jul} 1 3 ⁴ Annual	In progress
Milestone 3: Report WAFS training needs	WAFS TF Chair	17 May ^{Jul} 1 3 ⁴ Annual	In progress
Milestone 4: Maintain and distribute WAFS service reference document to ASIA/PAC States	WAFS TF Chair	3 1 ⁰ Nov Jun 1 4 ³ Annual	In progress
Milestone 5: Conduct survey on the implementation and utilization of WAFS (including SADIS/Secure SADIS FTP/WIFS services) and training needs within the ASIA/PAC Region and report to MET SG	WAFS TF Chair	17 May ^{Jul} 1 4 ³ Annual	In progress
Milestone 6: Update WAFS TF Work Plan	WAFS TF Chair	17 May ^{Jul} 1 4 ³ Annual	In progress

6. WORK PLAN				
Activity / Milestone	Accountability	Predecessors	Date	Status
Activity 1: Monitoring of the migration from GRIB1 to GRIB2 WAFS forecasts in ASIA/PAC Region				
Activity 1.1: Analyse any survey results on the operational use of GRIB2 WAFS forecasts	WAFS TF	5.3	28³¹ Apr ^{Mar} 13 Annual (until cessation of GRIB1 data)	In progress
Activity 1.2 Present findings to MET SG	WAFS TF Chair	1.1	17⁶ May 13 Annual (until cessation of GRIB1 data)	In progress
<i>Milestone 1: Monitor the migration from GRIB1 to GRIB2 WAFS forecasts in ASIA/PAC Region</i>	<i>WAFS TF Chair</i>	1.1-1.2	16⁷ May 13 Annual (until cessation of GRIB1 data)	<i>In progress</i>
Activity 2: Monitoring of the performance and utilization of new gridded forecasts for icing, turbulence and CB clouds				
Activity 2.1: Monitor the performance of new gridded forecasts for icing, turbulence and CB clouds	WAFS TF	-	28 Feb 13³⁰ Apr 14 Annual	In progress
Activity 2.2: Provide summary on performance of new gridded forecasts for icing, turbulence and CB clouds for inclusion in MET SG working/information paper	WAFS TF Chair	2.1	31 May f 14³ Annual	In progress
Activity 2.3: Analyse any survey results on the utilization of new gridded forecasts for icing, turbulence and CB clouds	WAFS TF	5.3	31 May f 14³ Annual	In progress
Activity 2.4: Present findings to MET SG	WAFS TF Chair	2.2-2.3	17 Jul May 13⁴ Annual	In progress
Activity 2.5: When necessary, prepare WAFSOPSG working/information paper on WAFS training needs	WAFS TF	2.2-2.4	18 mthly (no meeting in 2014 3 ; next in Mar 15 4)	In progress
Activity 2.6: When necessary, present paper to WAFSOPSG	WAFS TF via WAFSOPSG member	2.5	18 mthly (no meeting in 2014 3 ; next in Mar 15 4)	In progress

<i>Milestone 2: Monitor the performance and utilization of new gridded forecasts for icing, turbulence and CB clouds</i>	WAFS TF Chair	2.1-2.6	17 Jul 14 May 13 Annual	In progress
Activity 3: Reporting of WAFS training needs				
Activity 3.1: Analyse survey returns on WAFS training needs	WAFS TF Chair	5.3	31 May 14 f 13	In progress
Activity 3.2: Present survey finding to MET SG	WAFS TF Chair	3.1	17 Jul 14 May 13 Annual	In progress
Activity 3.3: When necessary, prepare WAFSOPSG working/information paper on WAFS training needs	WAFS TF Chair	3.1-3.2	18 mthly (no meeting in 2014 3 ; next in Mar 15 4)	In progress
Activity 3.4: When necessary, present paper to WAFSOPSG	WAFS TF via WAFSOPSG members	3.3	18 mthly (no meeting in 2014 3 ; next in Mar 15 4)	In progress
<i>Milestone 3: Report WAFS training needs</i>	WAFS TF Chair	3.2-3.4	17 May 14 Jul 13 Annual	In progress
Activity 4: Maintenance and distribution of WAFS service reference document to ASIA/PAC States				
Activity 4.1: WAFS TF to provide input on revising WAFS service reference document	WAFS TF	-	30 Jun 14 15-Apr 13	In progress
Activity 4.2: Update of WAFS service reference document	WAFS TF Chair	4.1	17 Jul 14 May 13	In progress
Activity 4.3: Upload WAFS service reference document (e-Document) to APAC web-site	ICAO Secretariat	4.2	31 10 Nov 14 Jun 13	In progress
<i>Milestone 4: Maintain and distribute WAFS service reference document to ASIA/PAC States</i>	WAFS TF Chair	4.2, 5.4	31 10 Nov 14 Jun 13	In progress
Activity 5: Conduct survey on implementation and utilization of WAFS (including SADIS/Secure SADIS FTP/WIFS services) and training needs within the ASIA/PAC Region and report to MET SG				
Activity 5.1: Develop a survey on the current and future implementation of WAFS (including SADIS/Secure SADIS FTP/WIFS services), the utilization of WAFS forecasts and WAFS training needs	WAFS TF	-	31 Oct 13 Update annually, if necessary	In progress
Activity 5.2: Distribute the survey to States	WAFS TF Chair	5.1	30 Nov 13 Annual	In progress
Activity 5.3: States to respond to survey	States	5.2	31 Jan 14 Annual	In progress
Activity 5.4: Analyse survey results	WAFS TF Chair	5.3	31 May 14 Annual	In progress

Activity 5.5: Present findings to MET SG	WAFS TF Chair	1.1, 2.3, 3.1, 5.4	17 Jul May 14 3 Annual	In progress
Activity 5.6: When necessary, prepare WAFSOPSG working/information paper	WAFS TF Chair	1.1, 2.3, 3.1, 5.4-5.5	18 mthly (no meeting in 2014 3 ; next in Mar 15 4)	In progress
Activity 5.7: When necessary, present paper to WAFSOPSG	WAFS TF via WAFSOPSG Members	5.6	18 mthly (no meeting in 2014 3 ; next in Mar 15 4)	In progress
<i>Milestone 5: Conduct survey on implementation and utilization of WAFS (including SADIS/Secure SADIS FTP/WIFS services) and training needs within the ASIA/PAC Region and report to MET SG</i>	WAFS TF Chair	5.1-5.7	17 Jul May 14 3 Annual	In progress
<i>Activity 6: Updating of WAFS TF Work Plan</i>				
Activity 6.1: Update the WAFS TF Work Plan (including the "Indicative Timetable for Implementation of WAFS" in Attachment I) before MET SG meeting	WAFS TF Chair	-	30 Jun 14 15 Apr 13 Annual	In progress
<i>Activity 6.2: Report updated WAFS TF Work Plan at MET SG meeting</i>	WAFS TF Chair	6.1	17 Jul May 14 3 Annual	In progress
<i>Milestone 6: Update WAFS TF Work Plan</i>	WAFS TF Chair	6.2	17 Jul May 14 3 Annual	In progress

Indicative Timetable for Implementation of WAFS

Item	Task/Stage of Implementation of WAFS	Anticipated Date
1	WAFS London products on access controlled internet site.	Completed
2	The establishment of back-up distribution arrangements for WAFS products.	Completed
3	Training in the operational conversion of GRIB forecasts to Wind / Temp charts.	Completed
4	All states that receive GRIB products capable of converting GRIB forecasts to Wind / Temp charts.	Completed
5	Removal of T4 Facsimile Wind / Temp charts from the satellite broadcast.	Completed
6	Training in the operational conversion of BUFR to SIGWX charts.	Completed
7	States having the ability to operate the decoding software to convert BUFR SIGWX messages into graphical format.	Completed
8	The satellite distribution by the two WAFCs of global SWH and of SWM for limited geographical areas in BUFR format.	Completed
9	Launch of SADIS 2G service.	Completed
10	SADIS 2G seminar for ASIA/PAC States.	Completed
11	Removal of T4 Facsimile SIGWX products from the satellite broadcast.	Completed
12	Procurement of SADIS 2G hardware by SADIS user States.	Completed
13	Termination of the SADIS 1G service.	Completed
14	Launch of trial gridded forecasts of icing, turbulence and convective clouds.	Completed
15	Implementation of WAFS Internet File Service (WIFS).	Completed
16	Workshop on gridded forecasts of icing, turbulence and convective clouds.	Completed
17	WAFCs begin provision of WAFS forecasts in the GRIB2 code form via internet based services (SADIS FTP/ Secure SADIS FTP /WIFS).	Completed

Item	Task/Stage of Implementation of WAFS	Anticipated Date
18	WAFCs begin broadcast of WAFS forecasts in the GRIB2 code form (excluding gridded forecasts of icing, turbulence and CB clouds) via satellite services (SADIS/ISCS).	Completed
19	WAFCs provide web-based gridded forecasts of icing, turbulence and CB clouds.	Suspended until further notice
20	Regional training on the use of the gridded forecasts.	To be discussed at WAFSOPSG/7 Sep 2012 Initial training material forwarded to WAFSOPSG members on 15 Apr 2013 for comments
21	WAFS end-user workstations upgraded to accept the GRIB2 code form.	May 2011 – November 2013
22	Termination of the ISCS-G2 service.	Completed
23	Planned cessation of WAFS upper air forecasts in GRIB 1 format. GRIB2 will be the sole format provided.	November 2013
24	Implementation of Secure SADIS FTP Service.	Completed
25	Re-prioritisation of GRIB2 over GRIB1.	Completed
26	SADIS FTP will be ceased. Secure SADIS FTP will be the sole Internet based service provided by the UK.	30 November 2012 Completed
27	The GRIB2 maximum icing potential deemed operational for Extended Division Time Operation (EDTO) purposes.	March 2011
28	The GRIB2 forecasts for icing, turbulence and CB clouds expected to be endorsed for operational use with Amendment 76 to ICAO Annex 3.	November 2013
29	Implementation of WAFS re-issuance policy for WAFS GRIB2 and WAFS SIGWX forecasts.	September 2014