



STUDY NOTE

**MEETING OF THE METEOROLOGY PANEL (METP)
METEOROLOGICAL OPERATIONS GROUP (WG-MOG)**

THIRD MEETING

Gatwick, London, United Kingdom, 13 to 16 June 2016

Agenda Item 6: Matters Relating to WG/MOG WAFS Work Stream

6.2: Other operational matters

**PROPOSAL RELATED TO SCHEDULED WAFC BACKUP OPERATIONS
(Presented by France)**

SUMMARY

This study note provides a proposal for issuance time of WAFS SIGWX forecasts for scheduled backup operations.
Action by the METP-WG/MOG/3 WAFS Work Stream is in paragraph 4.

1. INTRODUCTION

1.1 At its eighth meeting, the ICAO WAFS Operations group (WAFSOPSG), predecessor of the ICAO MET Panel Meteorological Operations Group work stream WAFS, discussed some changes to the WAFS SIGWX backup procedures, especially those for scheduled backup tests. Following the discussion, the group took the decision⁽¹⁾ that the issuance time of WAFS significant weather forecasts (SIGWX) for scheduled backup operations be revised and aligned with issuance time of normal operations :

**Decision 8/8 — Revised issuance times for scheduled
WAFC backup operations**

That all WAFS significant weather (SIGWX) forecasts (in the BUFR code form and in the PNG chart form) for scheduled WAFC backup operations be issued by the WAFC Provider States at 17 hours ahead of their validity times.

Note 1.— The change will be implemented with effect from the next scheduled backup events (October 2013).

Note 2.— In the event of an unscheduled backup event, WAFS SIGWX forecasts may be issued up to 2 hours later than the

normal issuance time (i.e. issued no later than 15 hours before validity time). Under such circumstances the WAFCs will issue administrative messages as necessary.

1.2 As a result, since October 2013, issuance times of WAFS significant weather forecasts have been as follows :

Operation	Normal	Scheduled backup (test)	Unscheduled backup
Issuance time	17 hours ahead of validity time	17 hours ahead of validity time	Not later than 15h ahead of validity time

2. DISCUSSION

2.1 During the first meeting of the Meteorology Panel Working Group for Meteorological Operations (METP WG-MOG) – WAFS Work Stream, in Gatwick, UK (8-11 September 2015), the WAFS Provider States presented under agenda item 4, 4.1.1⁽²⁾, the WAFS Management Report which includes the reporting of scheduled and unscheduled backup operations.

2.2 During the discussion regarding scheduled backup operations, it has then been suggested that the delivery of SIGWX products be done up to two hours later than normal, but not later than 15 hours ahead of validity time, which would better simulate real and unscheduled backup operations than being aligned with normal operations' issuance times.

2.3 The scheduled backup operations, also called backup tests, are intended to test software and communication procedures by the WAFS Provider States. It should be recalled that these backup tests are also opportunities for users of this information to test their own systems and applications especially those that are time-sensitive (e.g. programmable flight documentation application), and to assess the impact a backup operation may have on those systems.

2.4 As part of the WAFS management reporting, the WAFS Provider States have to keep up to date the 'Forthcoming and Historical Record of WAFS Backup Tests' document⁽³⁾. In this report updated on 29 January 2016, the most recent unscheduled backup operations happened on Friday 18 April 2014 and Tuesday 02 July 2014. They are recorded as follows :

Friday 18 April 2014 – WAFS London successfully provided real, unscheduled back-up for WAFS Washington by producing and transmitting all the SWH and SWM PNG and BUFR significant weather products normally issued at 0100 UTC on 18 April 2014 and valid 1800 UTC on Friday 18 April 2014. As an unscheduled backup even, the data was subject to a short delay, being issued at approximately 0200 UTC.

Tuesday 02 July 2014 – WAFS London successfully provided unscheduled backup for WAFS Washington by producing and transmitting all the SWH and SWM PNG and BUFR significant

weather products normally issued at 1300 UTC on 02 July 2014 and valid 0600 UTC on Wednesday 03 July 2014. As an unscheduled backup even, the data was issued 2 hours later than normal (within requirements), being issued approximately 1500UTC.

2.5 In the first case, a one-hour delay was observed; in the second case, a delay of almost two hours, but it was still within requirements for backup operations.

2.6 These two examples show that although the WAFc Provider States have implemented efficient procedures to minimize as much as possible the impact on the WAFS service (production and delivery), of any failure, delays in real backup operations might still happen.

2.7 In order that users be prepared to face with these delays or other issues of the WAFS service in case of real backup operations, it is proposed that the backup tests being performed in conditions as similar as possible than the conditions of real backup operations.

3. PROPOSAL RELATED TO SCHEDULED WAFc BACKUPS

3.1 In order that scheduled backup operations conditions be as similar as possible to unscheduled backup operations ones, it is proposed that the issuance time of WAFS SIGWX products in case of backup tests be aligned with the issuance time in real backup operations, which means up to two hours later than normal, but not later than 15 hours ahead of validity time.

3.2 The WAFc Provider States operate four scheduled backup operations per year. In order to minimize possible negative impact to users, it is proposed that the new issuance time be applied once or twice at a maximum a year during scheduled backup tests. The number per year of backup tests in these news time conditions (at least one) would be discussed and agreed by the METP WG-MOG.

3.3 As a result, issuance times of WAFS significant weather forecasts would be as follows :

Operation	Normal	Scheduled backup (test)	Unscheduled backup
Issuance time	17 hours ahead of validity time	17 hours ahead of validity time Once (or twice a year) : not later than 15h ahead of validity time	Not later than 15h ahead of validity time

3.4 It is also proposed that the WAFc would issue administrative messages indicating in which conditions the backup test would be performed, 17 hours ahead of validity time or up to two hours later than the normal issuance time.

3.5 In light of the discussion information, the meeting is invited to formulate the following draft decision :

**Decision n/n — Revised issuance times for scheduled
WAFC backup operations**

That all WAFS significant weather (SIGWX) forecasts (in the BUFR code form and in the PNG chart form) for scheduled WAFC backup operations be issued by the WAFC Provider States:

- up to two hours later than the normal issuance time during one (two at a maximum) WAFC backup operation per year ;
- at 17 hours ahead of their validity time during all other backup tests.

Note 1.— The change will be implemented with effect from the next scheduled backup events (October 2016).

Note 2.— The WAFCs will issue administrative messages as necessary, emphasizing the issuance time of each backup test.

Note 3.— The issuance time of unscheduled backup operations is not modified

4. ACTION BY THE METP-WG/MOG

- 4.1 The METP-WG/MOG is invited to:
- a) note the information contained in this paper; and
 - b) decide on the draft decision proposed in §3.5 for the group's consideration.

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References:

- (1) Ref. WAFSOPSG/8 report available at <http://www.icao.int/safety/meteorology/WAFSOPSG/Lists/Meetings/AllItems.aspx>
- (2) Ref. METP WG-MOG/1 Report available on the ICAO Secure Portal at <https://portal.icao.int/METP/MOG/Pages/MOG-Meetings.aspx>
- (3) Ref. Forthcoming and Historical Record of WAFC Backup Tests_29 Jan 16_.pdf available on the ICAO Secure Portal at <https://portal.icao.int/METP/MOG/Pages/MOG-Reference-Documents.aspx>