

WAFSOPSG-Memo/48
2/1/14

MEMORANDUM

Ref: AN 10/3.1

To: Members, World Area Forecast System Operations Group (WAFSOPSG)

From: WAFSOPSG Secretary

Subject: **Follow-up to Conclusion 8/13 — Availability of operational WAFS forecasts for cumulonimbus cloud, icing and turbulence in WMO GRIB2 code form**

Action: Members to:

- a) review the feasibility study into accelerating the harmonization process of the concerned WAFS forecasts and consider the proposal to consequently advance the issuance time; and
- b) indicate endorsement, or otherwise, of the proposal by 17 January 2014.

I have the pleasure of informing you that, as a follow-up of the above-mentioned conclusion from your last meeting, the WAFS Provider States have prepared a feasibility study with respect to accelerating the harmonization process and hence advancing the issuance time of the operational WAFS forecasts for cumulonimbus cloud, icing and turbulence. The feasibility study is provided at the attachment.

You will be pleased to note that WAFS London and WAFS Washington are in a position to accelerate the harmonization process of the concerned WAFS forecasts such that harmonized CB cloud, icing and turbulence data could be made available to users by T+4:35 hours after data time. Note that this would be between 25 and 55 minutes earlier than the current availability.

While the WAFSs believe this timeliness target can be met for the vast majority of occasions, it is recommended that a cut-off time of T+4:50 hours after data time be used by the WAFSs beyond which non-harmonized data would be issued in place of harmonized data. Note that this would be 20 minutes earlier than the current cut-off time.

In view of the foregoing, and appreciating that modifications will be required to the file transfers and data processing routines, the WAFCs are proposing to advance the issuance time of the WAFS gridded global forecasts for CB clouds, icing and turbulence with effect the 1200 UTC data set on 14 February 2014. The precise date/time would be communicated to users via administrative messages on the WAFS broadcast following the WAFSOPSG members endorsement of this proposal via correspondence.

Therefore, you are kindly invited to indicate your endorsement, or otherwise, of this proposal not later than 17 January 2014 (e-mail: RRomero@icao.int with copy to GBrock@icao.int and VLoch@icao.int). In the event that your view is not expressed by that date, it will be presumed that you have no objection to the proposal.

Best regards,

(signed by)
Greg Brock
on behalf of Raul Romero

ATTACHMENT

FEASIBILITY STUDY ON ACCELERATING THE AVAILABILITY OF HARMONIZED WAFS FORECASTS FOR CB CLOUD, ICING AND TURBULENCE

1. Conclusion 8/13 of the WAFSOPSG/8 meeting invited the WAFC Provider States to consider the feasibility of accelerating the harmonization process for the cumulonimbus cloud, icing and turbulence forecasts, and to provide a report to the Secretary by 31 December 2013 for onward distribution to the group. Conclusion 18/13 is reproduced below:

Conclusion 8/13 — Availability of operational WAFS forecasts for cumulonimbus cloud, icing and turbulence in WMO GRIB2 code form

That the WAFC Provider States be invited to consider the feasibility of accelerating the harmonization process for the cumulonimbus cloud, icing and turbulence forecasts, and to provide a report to the Secretary by 31 December 2013 for onward distribution to the group.

2. This study apprises the group of a proposal to accelerate the process and make the data available in a more timely fashion from 14 February 2014.

3. The WAFCs have reviewed the times at which raw data is available, the processes used to share the raw data, the harmonization process, and the subsequent delivery of harmonized data to SADIS 2G, Secure SADIS FTP, and WAFS Internet File Service (WIFS).

4. The WAFCs have also considered the “cut-off” time that should be applied in order to ensure the best balance of reliable delivery of harmonized cumulonimbus cloud (CB), icing and turbulence data against the rare need to issue non-harmonized data in the event that there are delays (for whatever reason) in processing the harmonized data.

5. Currently, the harmonized CB cloud, icing and turbulence data is made available between T+5:00 (WAFC Washington) and T+5:30 (WAFC London) hours after model data time. This is between 90 and 120 minutes after the 'standard' WAFS upper-air gridded global forecasts (for upper wind, upper-air temperature and humidity, etc.) in GRIB2 code form.

6. The WAFCs believe a significant improvement to the timeliness of availability of the harmonized CB cloud, icing and turbulence data is possible.

7. After reviewing the various processes, it is believed that **the WAFCs can make the harmonized CB cloud, icing and turbulence data available by approximately T+4:35. This would be between 25 and 55 minutes earlier than the current availability of this data, and approximately 60 minutes later than the 'standard' WAFS parameters in GRIB2 code form.**

8. In order to implement the above proposal, the WAFCs would need to modify some processes in order to initiate file transfers and data processing routines earlier than at present. It is considered that these changes could be implemented by the middle of January 2014 (preliminary proposal to be with effect from the 1200 UTC data, 14 February 2014). This timescale would permit the necessary

changes to be implemented in a controlled fashion, and for users to be given some notification of the change in availability times. The precise dates would be confirmed following the WAFSOPSG members concurrence of the proposal.

9. Some consideration also needs to be given to the “cut-off” time that a WAFC should use in order to determine if non-harmonized data should be issued in place of harmonized data. While the harmonization process is very reliable, it must be acknowledged that it is an extra step and is reliant upon receipt of raw data from both WAFCs. **In the event that raw data is late, then an agreed time “cut-off” is necessary, after which non-harmonized data will be issued (with suitable administrative messages). It is proposed that the “cut-off” time be brought forward from T+5:10 to T+4:50.**

10. Notwithstanding the need for a “cut-off” time, it is expected that the vast majority of CB cloud, icing and turbulence data will be issued by approximately T+4:35. However, the earlier the “cut-off” time, the greater the likelihood of non-harmonized data being issued. The time of T+4:50 for the “cut-off” time is considered an appropriate balance.

11. As a result of WAFSOPSG/8 Conclusion 8/13, the WAFCs believe they can accelerate the harmonization processes that produce the WAFS harmonized CB cloud, icing and turbulence data.

12. It is believed that the WAFCs can make the harmonized CB cloud, icing and turbulence data available by T+4:35 (measured from the data time of the data to the availability of the data on the Secure SADIS FTP service and the WIFS).

13. While the WAFCs believe the above timeliness can be met for the vast majority of occasions, it is also proposed that a revised (earlier) “cut-off” time be agreed after which non-harmonized data will be issued in place of harmonized data (with appropriate administrative messages also issued). The “cut-off” time is proposed to be T+4:50.