INTERNATIONAL CIVIL AVIATION ORGANISATION

AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP (APIRG)
AFI OPMET MANAGEMENT TASK FORCE FOURTH MEETING (AFI OPMET MTF/4)
(Pretoria, South Africa, 10 to 11 September 2012)

Agenda Item 4: Review of regional guidance material on OPMET exchange

h) Report of the Core Team of Experts

REPORT OF THE CORE TEAM OF EXPERTS AFI RODB BACKUP PROCEDURES

(South Africa and Senegal)

SUMMARY

The paper describes different options considered during the development process for the backup procedures to be implemented by two AFI Regional OPMET, Dakar and Pretoria RODBs. The backup procedures developed are presented in Appendix H to this working paper. Action by the meeting is in paragraph 4.

1. INTRODUCTION

1.1 During the second meeting of the Task Force (AFI OPMET MTF/2), it was recommended that a Core Team of experts be established to develop backup procedures for implemented by both Pretoria and Dakar RODBs, recommendations 2/7 and 2/9 refers.

1.2 The recommendations were endorsed by the tenth meeting of the Meteorological Subgroup (METSG/10) held in Dakar, Senegal, 29 June to 1st July 2011. Subsequently, Decision 10/6 and Conclusion 10/7 were formulated calling for the establishment of the Core Team and implementation of an AFTN circuit between Dakar and Pretoria respectively to support the backup procedures to be developed by the Core Team of Experts.

2. DISCUSSION

2.1 The meeting will recall that during the AFI OPMET MTF/3 and METSG/10 held back to back in Dakar, Senegal, 29 June to 1st July 2011, the Core Team of experts reported very little progress with regard to the development of backup procedures and stressed the need for better coordination of the activities of the team to ensure that there was progress.

2.2 The meeting may wish to note that following the METSG/10, the Core Team considered several options for backup of the two AFI RODBs (Dakar and Pretoria). The main focus was to develop backup procedures which would be practical and cost effective. On the 21 may 2012, the Core Team contacted IROG Toulouse via email correspondence to learn about any existing backup procedures implemented in the EUR. It was established that the backup mechanism used in the EUR was still under development and provided no solutions for the AFI Region.

2.3 In light of the above, it was clear that the Core Team had to develop backup procedures from scratch and various possible options were considered, here below presented for consideration by the meeting.

1. A dedicated line to be established linking the two RODBs. The line should have sufficient capacity to handle large volumes of data.
2. The two AFI RODBs to be backed up through Toulouse. This means that both RODBs would promulgate OPMET information to Toulouse and incase one fails, the information would still be retrievable from Toulouse.
3. The Global Telecommunication System (GTS) protocol to be investigated as a possible medium to be used for exchange of OPMET information between the two RODBs. This was considered an alternative to the AFTN line.
4. A routine procedure be established which would require the AFI AMBEX compiling centers (BCCs) to re-route OPMET bulletins directly to the other RODB incase one fails.

2.3 The various options above where considered thoroughly and analyzed for their cost effectiveness and practicability considering different challenges which exists in the AFI Region with regard to the exchange of OPMET information. At first, the installation of a back-up circuit between the two AFI RODBs was seen as the most viable option but it was soon established that it would not be cost effective. The other disadvantage about this option was that installing such a line would still not provide backup mechanism as it would only allow the exchange of OPMET data between the RODBs only and there would be no linkage to the AFI AMBEX centers.

2.4 The option to backup the two RODBs through Toulouse was also considered by the Core Team. The team felt that this option would not be viable as Toulouse is connected directly to the two RODBs through AFTN line and not to the AFI AMBEX Centers. Thus, in the event of one RODB failing, Toulouse would still not receive OPMET information. The team then agreed that the option to update the AMBEX scheme to allow the BCCs to re-route OPMET bulletins directly to the other RODB and by-passing the failed one would work.

2.5 In addition to the foregoing, the team agreed that in order for this option to work, the capacity at each RODB must be sufficient and that both RODBs must implement a common catalogue. Further, it should be stated very clearly in the AMBEX handbook that the BCCs should only re-route OPMET information only if the RODB they are responsible for sending OPMET information to fails. This would eliminate any possibility for duplication of OPMET bulletins in the databanks. Lastly, Appendix G containing the list of the AMBEX Focal points should also be updated accordingly.

3. CONCLUSION

3.1 The meeting may wish to note the different options provided above and work done by the Core Team of Experts in establishing the most practical and cost effective way to backup the two AFI RODBs. Further, the meeting is invited to note that the Core Team of experts agreed that option 4 above, would be the most appropriate and effective way to backup the two AFI RODBs. In addition, the meeting is invited to consider the backup procedures included in Appendix H to this working paper for consideration and possible adoption.

Recommendation 4/xx: Backup procedures for AFI RODBs (Dakar and Pretoria)

That, the secretariat invites the meeting to consider the backup procedures included in Appendix H for adoption and implementation by both AFI RODBs as well as AFI AMBEX Centers (BCCs).

4. ACTION BY THE MEETING

4.1 The meeting is invited to note the information provided in this working paper and decide on the draft recommendation above.

– – – – – – – – – – – –