



International Civil Aviation Organization

**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP  
SIXTEENTH MEETING (APIRG/16)  
(Kigali, Rwanda 19-23 November 2007)**

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**Agenda Item 4: AFI Regional Air Navigation Planning and Implementation**

**Agenda Item 4.1: Aerodrome Operational Planning (AOP)**

**Review of the report of the Ninth meeting of the Aerodrome Operational  
Planning Sub-Group (AOP/SG/9).**

*(Presented by the Secretariat)*

**SUMMARY**

This paper presents the report of the Ninth meeting of the Aerodromes Operational Planning Sub-Group. The Sub-Group received and reviewed the follow-up action taken on the APIRG /15 meeting Conclusions and Decisions approved by the Council. It reviewed the list of deficiencies in the AOP field and held lengthy discussions on the concerns of the Council with regard to the slow progress of the removal of these deficiencies in some States and noted that within the on-going Safety Audit Programme under the Comprehensive Systems Approach, audited States are required to develop action plans to remove the findings observed.

Action by APIRG/16 is at paragraph 8.1.

**References:**

AFI/7 RAN Meeting Report Doc 9702  
APIRG/15 Report  
AOP/SG/7 Report

**1. Introduction**

1.1 The Ninth Meeting of the Aerodromes Operational Planning Sub-Group was held from 10 to 12 July 2007 in the conference room of the International Civil Aviation Organization, Dakar, Senegal. It was attended by 26 participants from 10 States and two international organizations.

**2. Follow-up of APIRG/15 Meeting Conclusions and Decisions concerning Aerodrome Services.**

**2.1 General**

2.1.1 The AOP/SG/7 meeting was again apprised of the concerns of the Council with regard to the noticeable lack of progress in the reduction and eventual elimination of deficiencies; even though States

acknowledge that these deficiencies have a serious impact on safety of operations. In some cases, it was agreed that the remedial action did not require substantial resources. The meeting was also informed that the ICAO audits currently being conducted within the ICAO Universal Safety Oversight Audit Programme under the Comprehensive Systems Approach have by and large, reaffirmed the existence of these shortcomings.

## **2.2 Bird hazard reduction**

2.2.1 The meeting acknowledged the substantial progress made by various States as a result of emphasis being put on the conduct of ornithological studies before deciding on the measures to avert the problem. Bird hazard control units have been established at several airports with varying level of resources based on the seriousness of the problem. Environmental management within the aerodrome and its environs has been recognized as a necessary tool towards effective reduction of the hazard. Nevertheless, it was evident that more effort needs to be deployed as bird strikes are still recorded. Neighbouring States were advised to consider cooperative arrangements where possible to deal with the hazard especially in those cases where migratory birds were the predominant culprit and where because of the geographical realities of the States, such birds could traverse from one State to the other in a short time

2.2.2 With regard to reporting of bird strikes to the ICAO Bird Strike Information System (IBIS), it was agreed that the situation had not improved and that States must be reminded to put in place effective reporting systems not only for purposes of their own risk assessment but also for their required input to the global database. The meeting therefore reaffirmed the relevance of APIRG/15 *Conclusion 15/1: Bird hazard control and reduction* and developed the following draft conclusion.

### **Draft Conclusion AOP/SG 7/1. Cooperative approach in conducting ornithological studies.**

**That neighbouring States should where appropriate and possible, consider cooperative arrangement in the conduct of the ornithological studies.**

## **2.3 Rescue and fire fighting services (RFFS)**

2.3.1 The meeting noted that the number of international airports which do not have the required level of protection, as indicated in the AFI Facilities and Services Implementation Document (FASID) has reduced. In addition there has been a corresponding improvement on the provision of the necessary rescue tools and equipment and protective material.

2.3.2 The meeting noted that although airports recognize that the strategic objective of the rescue and fire fighting service is saving lives, it is ironical that at some airports, not sufficient resources are allocated towards training, developing, maintaining and facilitation of the staff to be able to achieve that objective. This is more prevalent at airports located close to large bodies of water. The meeting underscored the need for States' regulating authorities to develop appropriate regulations to govern the RFFS' needs for such aerodromes, which are many in the AFI Region. Airports close to marshy and mangrove areas were advised to consult the guidance material developed by ICAO and other civil aviation authorities to determine the effective, efficient and appropriate facilities and equipment. In addition such States should negotiate and enter in memoranda of understanding with other public and private agencies that have facilities that could be used for such purposes like the navy, yacht clubs, marine services etc.

2.3.3 In regard to the issue of RFFS staff strength, the meeting reiterated the need for States to develop appropriate regulations to address issues such as RFFS staff selection criteria, training curriculum and certification, and requirements for periodic medical examination.

2.3.4 In light of the above considerations, the meeting reaffirmed the relevance of the APIRG/15 Conclusion 15/2 - *Rescue and fire fighting services (RFFS)* and developed the following draft conclusion.

**Draft Conclusion AOP/SG7/2. Rescue and fire fighting equipment for difficult terrain**

**That States which have aerodromes located close to large bodies of water or marshy land or mangrove areas should develop the appropriate minimum rescue and fire fighting facilities considered necessary taking into account the critical aircraft and corresponding physical topography at the airport in question.**

**2.4 Aerodrome Emergency Plan (AEP)**

2.4.1 The meeting noted that there wasn't a substantial improvement on the implementation of this requirement. The integrity of the AEPs, where they exist, was questionable and at many airports only draft AEPs were available for a curiously long time. It was also not quite evident why there was this state of affairs as this activity did not require substantial financial allocations. The meeting observed that in some cases no full-scale emergency exercise had been conducted for a long time and when conducted it was doubtful if they were indeed full-scale. On some occasions, these exercises were not followed up by an elaborate critique and feedback session and eventual amendment of the AEP. Subsequent to the APIRG/15 Conclusion 15/3, some States have invited the participation of ICAO and where it was possible; the contribution of ICAO has been much appreciated. The meeting therefore reaffirmed the relevance of APIRG Conclusion 15/3 and further developed the following draft conclusion:-

**Draft Conclusion AOP/SG 7/3: Aerodrome emergency plans**

**That:**

- 1) **States consider the organization of local workshops with all services and organizations concerned in order to facilitate coordination, finalization and approval of their aerodrome emergency plans;**
- 2) **All States, which have not done so, should ensure that all international aerodromes in that State develop an approved aerodrome emergency plan by 01<sup>st</sup> January 2008.**
- 3) Both the ESAF and WACAF Regional Offices shall conduct a survey in February 2008 to ascertain which airports will still have not implemented this requirement and call a meeting with these States to further discuss this issue.

**2.5 Aerodrome certification**

2.5.1 The meeting was informed that there was low level of implementation of the requirement for aerodrome certification. It being a subject of major importance, it was discussed as a separate Agenda Item 4.

**2.6 Review of deficiencies in the AOP field**

2.6.1 The meeting noted the efforts made by States to reduce the deficiencies. However, because of the new requirement to certify aerodromes, which has not been effectively implemented, the list of deficiencies has increased. In view of the serious concerns raised by the ICAO Council on the lack of progress in the elimination of deficiencies, the subject was discussed in detail as Agenda Item 2.

## 2.7 Participation at future AOP/SG meetings.

2.7.1 The meeting re-emphasized that, in order to ensure efficiency and effectiveness at future meetings, States should consider including participants in their delegations who were at previous meetings so that there would be no repeat discussions of the items on the agenda. The meeting therefore reaffirmed the relevance of APIRG Conclusion 15/8: *Continuity of participation at AOP/SG meetings*.

## 3. Review of deficiencies in the AOP field

3.1 The Sub-group noted that the Secretariat had created a regional database on deficiencies and attempts to maintain it up-to-date through the various sources available, including IATA and IFALPA. The meeting emphasized the need to validate the deficiencies raised and the need to make the database accessible to the States. The Sub-group reminded States to systematically inform the Secretariat on the corrective actions they take and reply to letters sent by the Secretariat for validation of deficiencies so that the database can be kept reliable.

3.2 The Sub-group then reviewed the list of deficiencies in the AOP field extracted from the database and noted with satisfaction the efforts made by some States to eliminate certain deficiencies in spite of the scarcity of resources. With respect to aerodrome fencing efforts made by many States including Côte d'Ivoire, Equatorial Guinea and Nigeria to provide their aerodromes with adequate fences were noted and encouraged. As regards emergency plans, however, the meeting acknowledged that most of the AEPs have remained in draft form for a long time. After discussions and clarification of the aerodrome operator's responsibilities, the meeting outlined the need, based on Senegal and the Gambia experience, to expedite the finalization and approval of AEPs through the conduct of local workshops with all the Stakeholders.. The meeting set a deadline of 1<sup>st</sup> January 2008 for the elimination of this deficiency. The Secretariat was mandated to follow-up on the progress.

3.3 Concerning pavement strength deficiencies, the meeting acknowledged that complete rehabilitation of runways was, in many States beyond the responsibility and means of airport operators, given the high cost involved, and urged concerned States to give priority to the allocation of the necessary resources needed for planned maintenance programmes. Efforts being done or have been done in many States such as Equatorial Guinea, Ethiopia, the Gambia, Kenya, Niger, Nigeria, Rwanda, Tanzania,, Zambia and Zimbabwe were noted and encouraged.

3.4 With respect to power supply, the need for negotiation with the power supply providers to supply the airport from at least two different sources and to give the airport the necessary priority, was emphasized. The progress being made in ASECNA States to reduce the switch-over time was also noted.

3.5 The lack of determination and reporting of runway pavement bearing strength and friction characteristics was also discussed as well as the inconsistencies of the AIPs with respect to the corresponding data. The meeting noted difficulties facing many States to acquire the appropriate equipment for measuring these characteristics and recommended that States should consider cooperative arrangement for acquiring such equipment. The meeting also agreed that provisions should be taken by CAAs to ensure the accuracy of the related information and other aerodrome data published in the AIP.

3.6 On the whole, the Sub-group was reminded of the concern expressed by ALLPIRG/5, the Air Navigation Commission and the ICAO Council about persistent deficiencies, in particular those impairing safety. The meeting agreed that priority should be given by States to eliminate the most common and persistent deficiencies. Therefore the meeting developed the following draft Conclusion:

**Draft Conclusion AOP/7/4: Cooperative approach for the evaluation of runway strength and measurement of runway friction characteristics**

**That neighbouring States consider cooperative arrangements for activities related to pavement strength evaluation and surface friction characteristics measurement, including the acquisition of associated equipment if considered appropriate.**

3.7. The attention of the sub-group was drawn on ALLPIRG/5 Conclusion 5/15 that calls for implementation of “last resort action” when efforts to eliminate deficiencies prove unsuccessful after exhausting all alternatives. The last resort action consists of development of an alternate facility/procedure in the ANP and if not feasible, States, users and ICAO should be provided with an analysis concerning the risk associated with such a deficiency.

3.8. Finally the meeting also discussed the case of airports listed in the ANP which are not used or planned to be used for regular international flights and are therefore poorly equipped. This, to some extent contributes to the long list of deficiencies which remain unresolved for a long time. The meeting therefore reaffirmed the relevance of APIRG Conclusions 12/56, 12/57, 12/58 and 14/56 and formulated the following draft Conclusion:

**Draft Conclusion AOP/7/5: Review of the list of international airports in the AFI ANP**

**That States should make a review of the list of airports included in the AFI ANP and FASID and propose appropriate amendments, including the removal from the Plan of airports not used or planned to be used for international operations, based on actual and projected aviation activities.**

**4: The ICAO Universal Safety Oversight Audit Programme – Comprehensive Systems Approach: Lessons learnt so far**

4.1. The meeting discussed the progress achieved by the USOAP programme under the comprehensive systems approach which was launched in January 2005 and acknowledged the preparatory works achieved by ICAO including the publication of guidance material contained in Doc. 9734 (Part I and II), and the training provided to States’ coordinators as well as ICAO auditors and seconded auditors designated by States. With respect to States inputs, the meeting noted with satisfaction that most States have submitted their SAAQs and CCs required for the audits preparation and urged States which have not done so to provide ICAO with the necessary data either with hard copies or online using the dedicated website created by ICAO for this purpose.

4.2. At the time of the meeting, it was noted that 18 AFI States have been audited and a number of reports are already available. The meeting noted with concern, the low level of implementation of the eight critical elements and this is reflected in common findings such as:

- i.) outdated primary legislation not reflecting the current civil aviation situation or not establishing a civil aviation authority with the necessary manpower (quality and quantity) and vested with necessary regulatory and enforcement powers, including for issuing, suspending or cancelling aerodrome certificates;

- ii.) the absence of specific operating regulations causing the effectiveness of the Annex 14 SARPS and prescribing the conditions and criteria for the certification of aerodromes;
- iii.) the lack of a dedicated entity within the CAA tasked with aerodrome regulation and certification, or when this entity exists, inadequate staffing due to difficulties in attracting and retaining qualified personnel and /or of inadequate technical staff job descriptions covering all the fields of expertise required for aerodrome certification and continuing surveillance.
- iv.) the lack of a training programme, and implementation of the same, taking into account technical staff training requirements for the various levels of aerodrome inspector functions.
- v.) the lack of guidance material intended for aerodrome operators and for regulatory technical staff,
- vi.) the lack of an aerodrome inspector's handbook outlining the inspection methodology and procedures, including checklists,
- vii) non-implementation of aerodrome certification and safety management requirements and status of certification of aerodromes not published in the AIP, and
- viii) the lack of an inspection programme to ensure continuing surveillance and a methodology to address safety concerns identified during inspections, including exceptions and enforcement procedures.

4.3 The meeting noted the initiatives being taken within regional groupings such as the ASECNA, the COSCAPs, EAC (CASSOA) and the SADC to better prepare States for auditing and to assist States address some of the critical findings.

4.4 In view of the foregoing, the meeting developed the following draft Conclusions:

**Draft Conclusion AOP/7/6: Preparation of States for the safety oversight audits**

**That:**

- 1) States which have not done so, as a matter of urgency, take appropriate measures to provide ICAO with their SAAQs and CCs, using where possible online facilities provided by ICAO on a dedicated Website.**
- 2) States be encouraged to exchange information between audited and non-audited States to assist the latter in their preparation.**
- 3) ICAO further assist States in training national auditors/Inspectors.**

**5: Status of implementation of Annex 14 requirements: Aerodromes certification and safety management system.**

5.1. The meeting recalled Annex 14, Volume I provisions for certified aerodromes to have in operation a safety management system (SMS). The meeting further noted the harmonization, through Amendment 8, which became applicable from 23 November 2006, of the safety management requirements in Annex 14, Volume I, with those of Annex 6 — *Operation of Aircraft* and Annex 11 — *Air Traffic Services*, and the new section requiring States to establish a safety programme and an

acceptable level of safety, as well as the implementation, by the aerodrome operator, of a safety management system at a certified aerodrome.

5.2. In reviewing the status of implementation of the requirements for aerodrome certification and SMS, the meeting noted the survey carried out by ICAO Secretariat through the Regional Offices, which revealed the low level of implementation among States. This trend was corroborated by the results of USOAP audits conducted under the comprehensive system approach where, out of the 18 States so far audited, at the time of the meeting, in the AFI region, only 3 have partially (at various degree) implemented aerodrome certification and SMS requirements. The meeting also noted that even where the State indicated to have fully implemented the requirement for certification, both the USOAP audits and regular programme missions carried out by Regional Office staff had shown that in many cases the regulatory framework was inadequate.

5.3. The meeting identified the main reasons for this low level of implementation to be:-

- the lack of an adequate legal/regulatory framework, in particular due to outdated legislation, inadequate power delegation to DGCAs to regulate airport authorities which are financially more affluent and reporting only to the Minister;
- the lack of formal and duly approved certification process for some States having provided for the requirement of aerodrome certification at various levels of their system of legislation/regulation.
- Insufficient autonomy of DGCAs and lack of expertise due to difficulties in attracting and maintaining qualified personnel;
- Inadequate structure of DGCAs and lack of separation between regulatory and operational functions.

5.4. In addition to these reasons reflecting the poor safety oversight capability of States, the meeting also underscored that a number of States are not acting in consultation with their airport operators nor have they established a framework for such consultation that would lead to the development of a realistic implementation action plan based on a realistic gap analysis.

5.5. The meeting noted some initiatives taken by individual States or through regional groupings such as ASECNA, CEMAC, COSCAP, EAC (CASSOA), SADC, and UEMOA to address identified problems. In this context, effective restructuring or reorganization in progress at many civil aviation administrations to become autonomous agencies is noted. Efforts made by some States to have in place a regulatory framework including, inter alia, guidance material for technical regulatory staff such as an aerodrome inspector' handbook, were noted and encouraged, just as the will expressed by these States to share their experience and documents with other States.

5.7 In view of the foregoing, the meeting developed the following draft Conclusion:

**Draft Conclusion AOP/7/7: Aerodrome certification process – aerodrome certification and safety management systems regulations.**

**That:**

- 1) States are encouraged to exchange their experiences in implementing the aerodrome certification requirement.**
- 2) CAAs, which have not done so, consider the establishment of a consultation framework with their airport operator with a view to developing a realistic action plan**

**for the implementation of the aerodrome certification requirement based on a careful considered gap analysis.**

- 3) **States, which have not done so, ensure the development, approval and publication by 1<sup>st</sup> January 2008, of aerodrome certification and SMS regulations as well as formal certification process defining steps to be followed for the certification of aerodromes.**
- 4) **ICAO further assist States in organizing training courses for aerodrome inspectors.**

**6: Specific Annex 14 requirements –Amendment 8 & 9 to Annex 14, Volume I.**

6.1 Under this agenda item, the meeting was apprised of the content of amendment 8 & 9 to Annex 14, Volume I which became applicable 23 November 2006. The meeting reviewed the pertinent amendments including the new definition of “balked landing”, a refined definition of a safety management system, further clarification on the OFZ limitations with respect to the operation of New Larger Aeroplanes (NLA) and the harmonization of the safety management requirements in Annex 14, Volume I to those of Annex 6 – Operation of Aircraft and those of Annex 11 – Air Traffic Services. The harmonization responds to the need to complement the prevailing approach to the management of safety based upon regulatory compliance with a performance based approach among the ATM providers, aircraft operators, maintenance organizations and aerodrome operators.

**7: Amendment to the AOP/SG ToR in support of the ICAO Strategic Objectives.**

7.1. Under this agenda item, the meeting reviewed its terms of reference and future work programmes with a view to incorporate the ICAO emphasis on ensuring all activities support the ICAO Strategic Objectives. In the terms of reference, an addition was made for the sub-group to develop and keep up to date a deficiencies database. In the work programme the tasks related to the follow-up on the impact of the introduction of the NLAs were deleted. In recognition of the ever rising cost of fuel and the related environmental concerns, task no. 6 was modified to include a consideration related to reducing both the airport approach time and taxing time through infrastructure developments and establishment of appropriate approach procedures.

**8. Action by the APIRG/16 Meeting.**

8.1 The APIRG/16 meeting is invited to take note of the activities of the AOP/SG and to recommend the draft conclusions for adoption by Council.