



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**  
**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP**  
**FIFTEENTH MEETING (APIRG/15)**

(Nairobi, Kenya, 26 – 30 September 2005)

**Agenda Item 4: Air Navigation and Aviation Security (AVSEC) issues**  
**4.1: Review of the report of the sixth meeting of the Aerodrome Operational Planning Sub-Group (AOP/SG/6)**

**(Presented by the Secretariat)**

**SUMMARY**

This paper presents the report of the sixth meeting of the Aerodrome Operational Planning Sub-Group. The Sub-Group received and reviewed the follow-up action taken on the APIRG/14 meeting Conclusions and Decisions approved by 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 removal of these deficiencies in some States. In addition, the meeting reviewed the status of aerodromes installations and service provided at international aerodromes with particular emphasis to rescue and fire fighting, bird hazard control and reduction and aerodrome emergency planning. The meeting also reviewed the progress so far achieved by States towards the requirement in Annex 14 Vol. I with respect to aerodromes certification and received and reviewed the report of the New Larger Aircraft Task Force.

Action by APIRG/15 is at paragraph 10.1

**Reference:**

AFI/7 RAN Meeting Report Doc. 9702  
APIRG/14 Report  
AOP/SG/6 Report

1. Introduction

1.1 The sixth meeting of the Aerodrome Operational Planning Sub-group (AOP/SG) was held at Nairobi, Kenya from 11 – 13 May 2005, attended by 31 participants from 11 States and 3 member international organizations.

2. Follow-up action on APIRG/14 Meeting Conclusions and Decisions concerning aerodrome installations and services

2.1 **General**

2.1.1 The AOP/SG/6 Meeting reviewed the APIRG/14 Conclusions and Decisions related to the progress and status of implementation of aerodromes services in the AFI Region. The concerns of the ICAO Council on the lack of noticeable progress in the reduction or total removal of deficiencies which had an impact on safety of operations in the AOP field in the AFI Region was emphasized to the meeting.

## 2.2. Bird hazard reduction

2.2.1 The meeting noted that following Conclusion 14/1 of APIRG/14 some States had made substantial efforts in bird hazard control and reduction and therefore agreed that the workshops that ICAO ESAF and WACAF Regional Offices had conducted had achieved the desired results. However, where mitigation measures were implemented without proper ornithological and environmental studies, success was minimal. Several measures, working together, are a sure way to obtain the desired results. The allocation of adequate resources is essential even though benefits from the resources deployed are often not obvious at the beginning.

2.2.2 The meeting further agreed that collecting, analyzing and reporting all strikes to ICAO IBIS was essential and that no strike was too minor to be ignored. The meeting was further reminded that in the proposed amendment No. 7 of Annex 14, Volume I to be applicable 24<sup>th</sup> November 2005, the recommendation is upgraded to a Standard.

2.2.3 In view of the above, the meeting reaffirmed the relevance of the APIRG 14 Conclusions 14/1 and adopted the following draft conclusion:-

### **DRAFT CONCLUSION 6/1: REPORTING OF BIRD STRIKES TO ICAO**

**THAT STATES ENSURE ALL BIRD STRIKE INCIDENTS (REGARDLESS OF THE BIRD SIZE) ARE REPORTED TO ICAO FOR INCLUSION IN THE ICAO BIRD INFORMATION SYSTEM (IBIS) DATABASE.**

## 2.3 Rescue and fire fighting services (RFFS)

2.3.1 The meeting noted the view of APIRG/14 Meeting that substantial progress had been made in the implementation of the requirements with respect to RFFS as a result of the increased resource allocation by the established autonomous airport authorities and the progressive involvement of the private sector in the ownership of airports. However many airports located near large bodies of water or swamps did not have specific provision for fire fighting and rescue under these circumstances. The subject was deliberated further under Agenda Item 4.

## 2.4 Aerodrome Emergency Plan (AEP)

2.4.1 The meeting discussed this matter at length and agreed that the level of implementation of this requirement in the region was inadequate. At workshops conducted by the ESAF and WACAF Regional Offices, the following observations were made:

Some AEPs were adopted from elsewhere without regard to the specific context of the State in which they are to be imposed;

Some AEPs are prepared by an individual and later imposed to the rest of the stakeholders;

There is no sufficient awareness creation amongst the stakeholders in particular those that are not airport based;

Many AEPs are not updated regularly; and

Many AEPs are not adequately tested.

2.4.2 The meeting observed that many so called “full scale emergency exercises” carried out to fulfill the requirement of Annex 14, were grossly inadequate. Some are nothing more than a fire drill or at most a partial exercise. Some of these exercises are not followed up by an elaborate critique and feedback to AEP updating and improvement. In order to cause improvement in this regard, States

were encouraged to facilitate participation of the ICAO Regional Offices in the planning, organizing and observing the full scale exercise where possible. The meeting therefore reaffirmed the APIRG/12 Conclusion 12/6 and adopted the following draft conclusion:

**DRAFT CONCLUSION 6/2: CONDUCT OF FULL SCALE EMERGENCY EXERCISES.**

**THAT WHEN STATES PLAN TO CONDUCT FULL SCALE EMERGENCY EXERCISES, THEY SHOULD CONSIDER INVITING THE ICAO REGIONAL OFFICE AND OTHER STATES TO WITNESS AND ASSIST IN THE CRITIQUE SESSIONS.**

2.4.3 On removal of disabled aircraft, the meeting was informed by Ghana on the availability in Accra, of a disabled aircraft removal kit capable of lifting a B747-400 with a trained recovery team of certified RFF officers that can be mobilized at short notice. Already five successful recovery operations have been conducted at airports in the region in the last two years. States in need can contact the Ghana Civil Aviation Authority.

**Aerodrome Certification.**

2.5.1 The meeting agreed with the observation of APIRG/14 that the progress of implementation of this requirement was very low bearing in mind that the Annex 14 Standard on the subject was effective 27<sup>th</sup> November 2003 despite the workshops organised in both the ICAO ESAF and WACAF Regions. This subject was deliberated further under Agenda Item 4.

**2.6 Impact of new larger aeroplanes in the AFI Region**

2.6.1 The meeting acknowledged that the development and manufacture of A380 had now approached maturity and that the first test flight had been conducted on 28<sup>th</sup> February 2005. In the mean time, ICAO had published a circular on New Larger Aeroplane Operations at Existing Aerodromes, which gives guidance on the conduct of aeronautical studies required to allow for preparation to receive Code F aeroplanes at Code E airports without compromising on safety. The subject was deliberated further under Agenda Item 4.

**3. Review of deficiencies in the AOP field**

3.1 The Sub-group noted with satisfaction the efforts made by some States to eliminate certain deficiencies in spite of the scarcity of resources and agreed that these efforts must be continued and encouraged. However, much remains to be done, as the list has not decreased significantly. On the contrary, due to the entry into force the requirement for certification that many States have not implemented, the list has increased. The Sub-Group was of the opinion that the table does not afford States the opportunity to indicate efforts that are ongoing but have not reached a stage where the deficiency can be removed and advised ICAO to evaluate how best this can be reflected in the current tables.

3.2 The Sub-Group noted that the most common and persistent deficiencies were the lack of adequate aerodrome fencing, the lack of duly approved and regularly tested and updated airport emergency plan, the lack of bird hazard control programme, the unreliability of primary power supply and inadequate secondary supply with its impact on unavailability of airfield lighting and NAVAIDS. Among the reasons identified by the meeting for these persistent deficiencies was the lack of financial resources for some States, the lack of financial autonomy or autonomy of decision for some States having created autonomous entities, inadequate approach in implementing some corrective actions due to lack of expertise and trained personnel and lack of awareness of all stakeholder including the highest authorities.

3.3 Regarding aerodrome fencing, it was agreed that States should not necessarily resort to very expensive solutions requiring huge budget but also consider cheaper solutions adapted to their specific context for part or the entire fence. It was also recognized that in some cases, light fences with adequate patrols, appropriate restricted areas signs and increasing awareness of the neighbouring populations may suffice.

3.4 With respect to bird hazard, the need for consideration of bird hazard to aviation at all levels including CAA, all airport-based stakeholders and neighbouring communities was also emphasized. The use of all media for sensitisation of the general public, the need for designation a unit responsible for bird hazard control as well as the need for each airport to establish a bird hazard committee and develop a bird hazard programme based on ornithological and environmental studies were underscored.

3.5 On the issue of unreliability of primary power supply, the meeting was of the view that States that have not done so, consider the negotiation of high level arrangements with the electricity suppliers so that the airport be supplied from at least two different substations. The meeting recognised that special efforts should be made by Airport Operators to provide reliable and adequately-sized secondary power supply with automatic switch-over system meeting ICAO Annex 14, Volume I requirements. Establishment of planned maintenance programmes was also emphasized.

3.6 The meeting also noted that the requirements based on which deficiencies were developed were based on outdated information regarding traffic in particular the critical aircraft and AUW. In conclusion the subgroup reaffirmed the relevance of APIRG Conclusions 12/56, 12/57, 12/58 and 14/56 and adopted the following draft conclusion:

**DRAFT CONCLUSION 6/3: UPDATE OF THE AFI FASID AOP TABLE I**

**THAT ALL STATES SHOULD REGULARLY LIAISE WITH ICAO IN ORDER TO ENSURE THAT THE NECESSARY UPDATES OF THE TABLE AOP 1 ARE MADE AS SOON AS CHANGES OCCUR.**

**4. The ICAO Universal Safety Oversight Audit Programme – Comprehensive Systems Approach.**

4.1 The meeting was reminded that during the 33<sup>rd</sup> Session of the Assembly in 2001, ICAO was mandated to expand the Universal Safety Oversight Programme to cover Air Traffic Management (Annex 11) and Aerodromes (Annex 14) as of 2004. During the preparatory work, difficulties in implementing a limited portion of the aviation activities without fully addressing associated procedures and practices were experienced. The 35th Assembly therefore recommended the expansion of the programme to all safety-related areas in all Annexes. The implementation of this new mandate is currently in progress and some two major documents; the State Aviation Activity Questionnaire (SAAQ 2005) and Compliance Checklists (CCs) for all safety-related Annexes have been developed and States have been asked to fill these up and to submit documents developed to assist in the implementation of the Standards and Recommended Practices (SARPs) and in maintaining an effective safety oversight system.

4.2 ICAO is planning to conduct audits intended to validate the information provided, evaluation of the capability of the safety oversight of the State including the audit of the organisation, the processes, and the procedures and programmes established and maintained towards the fulfillment of the safety oversight obligations. Auditors from States are being trained and certified for assisting the ICAO audit teams. It was however emphasized that ICAO audits will not be meant to replace the regular and impromptu audits that the regulatory authority is still expected to conduct. With respect to the training of auditors, the meeting noted that many States were considering appointing auditors in other fields other than AGA. The Sub-Group were of the view that it was necessary to include

auditors that have a background in the AGA field who have a thorough understanding of Annex 14. The following draft conclusion was developed:-

**DRAFT CONCLUSION 6/4: ICAO AUDIT PROGRAMME COMPREHENSIVE SYSTEMS APPROACH.**

**THAT:**

**ICAO CONSIDERS THE TRAINING AND CERTIFICATION OF SAFETY OVERSIGHT AUDITORS IN ALL FIELDS COVERED BY THE COMPREHENSIVE SYSTEMS APPROACH AUDIT PROGRAM, INCLUDING THE AOP FIELD.**

**STATES WHICH HAVE NOT DONE SO, AS A MATTER OF URGENCY, RESPOND TO ICAO'S REQUEST FOR THE APPOINTMENT OF SUITABLE PERSONNEL TO BE TRAINED AND CERTIFIED AS AUDITORS.**

**5. Aerodrome Certification**

5.1 The Sub-Group was reminded that, as from 27 November 2003, Annex 14 Volume I Standard 1.4.1 requiring States to certify aerodromes used for international operations had become applicable. An aerodrome certification system requires the enactment of basic legislation to provide for the requirement of certification of aerodromes and designation of an empowered regulatory authority, the publication of the associated aerodrome certification regulations and procedures and implementation of the published procedures for certification.

5.2 A survey initiated by the ICAO ESAF and WACAF Offices confirmed the low level of implementation of the aerodrome certification requirement. Several States have introduced at various levels of their national legal instruments a requirement for the certification of aerodromes. Some States have in addition published aerodrome certification regulations based on the model regulations contained in Doc. 9774. Unfortunately, very few States have gone further to actually certify their aerodromes used for international operations.

5.3 Following the exchanges of views and experiences among participants from various States represented, it became evident that the main reasons for this low level of implementations was, inter alia, the lack of expertise, the lack of an appropriate unit within the CAA to deal with the certification process, the lack of trained personnel by sufficient numbers to process the applications for certification and conduct the necessary preliminary inspections. The lack of a regulatory framework and procedures for inspection as well as inadequacies in the national aerodrome regulations especially in relations to specific fields like rescue and fire fighting was identified to be the other contributing factors. The need for separation of the regulatory entity from the airport operations was also emphasized.

5.4 The meeting noted with appreciation efforts being made by ESAF and WACAF Regional Offices to assist States by conducting training workshops organized in conjunction with FAA at Praia, Cape Verde and Johannesburg, South Africa for the training of aerodrome inspectors. The meeting was of the view that these efforts should be encouraged and pursued. The need for training airport operators to fully play their role in the certification process was underscored.

5.5 The meeting acknowledged the efforts being made within regional groupings such as WAMEU with the assistance of the ICAO Technical Cooperation Bureau, and the efforts that are at hand within the East African Community with the assistance of FAA to comply with the aerodrome certification requirement. This cooperative approach that would enable the pooling of the limited resources and facilitate the development of regional reference documents should be encouraged and expanded to others regions.

6.6 In the light of the foregoing, the meeting reaffirmed the relevance of APIRG Conclusion 14/4 and further developed the following draft conclusions:

**DRAFT CONCLUSION 6/5: IMPLEMENTATION OF THE AERODROMES CERTIFICATION REQUIREMENT.**

**THAT :**

**STATES CONSIDER THE USE OF SUB-REGIONAL GROUPINGS, WHERE THEY EXIST, TO COLLECTIVELY ADDRESS THE AERODROME CERTIFICATION ISSUE.**

**STATES WHICH HAVE NOT DONE SO, WHERE FEASIBLE CONSIDER THE SEPARATION OF THE REGULATORY AUTHORITY FROM AIRPORT AUTHORITY. IN CASES OF A SINGLE ENTITY, THE TWO FUNCTIONS SHOULD BE UNDER TWO SEPARATE DEPARTMENTS.**

**ICAO CONTINUES TO ASSIST STATES BY ORGANIZING MORE TRAINING ACTIVITIES, INCLUDING ON SAFETY MANAGEMENT SYSTEM.**

**6. Rescue and Fire Fighting Services**

6.1 The Sub-group noted that some international aerodromes still have a level of protection lower than that required. This deficiency is accentuated by the suppression of the provision to lower the RFF category based on the number of movements of the critical aeroplane and the lack of financial means, in particular, for small airports receiving some large aircraft, but where the level of traffic remains relatively low.

6.2 The Sub-Group was reminded that as of 1<sup>st</sup> January 2005, the level of protection provided at an aerodrome for rescue and fire fighting should be equal to the aerodrome category based on the longest aeroplane normally using the aerodrome and the fuselage width, irrespective of the number of movements. The need for re-evaluation of the levels of protection provided at aerodromes, which were taking advantage of the previous provision allowing a reduction of category depending on the number of movements of aeroplanes in the highest category normally using the aerodrome, was emphasized.

6.3 The meeting noted that whilst many airport authorities were allocating reasonable amount of resources for the procurement of fire fighting trucks, many were not allocating sufficient resources for procurement of rescue tools, for the adequate training of the personnel and for the procurement of the appropriate protective materials (helmets, boots, suits etc). As a consequence, in addition to causing the facility to be very inefficient or even plainly ineffective, the morale of personnel is negatively affected.

6.4 The issue of rescue in difficult environment, in particular for aerodromes located close to large stretches of water or swampy areas, was discussed and the lack of adequate equipment and trained personnel to operate in these areas was emphasized. Some recent cases of accidents were discussed and the need for States to develop national ARFF regulations with specific requirements on the necessary equipment and trained personnel to be provided at such airport was underscored. In view of the high cost involved, airports were advised to arrange for mutual agreement with equipped agencies such as coast guards or even communities familiar with the specific environment such as fishermen who have proven to be quite useful in some States.

6.5 The meeting appreciated the ICAO regional Offices' continuous assistance to States, notably through the organization of regional workshops, the latest of which was conducted in Ghana from 28 July to 1<sup>st</sup> August 2003. The meeting was informed that, pursuant to a recommendation of this workshop, the ASECNA RFF School, ERSI, Douala and the Ghana CAA RFF training Centre, Accra, had signed a MOU to facilitate exchanges of instructors and expertise. The meeting was also apprised of the creation during the Accra workshop of an Airport Rescue and Fire Fighting Services Association of Africa (ARFFSAA), the seat and coordination of activities of which are temporarily ensured by Ghana, which has made available a website (<http://www.arffsaa.org>) for the association.

6.6 The issue of RFFS staff strength was also discussed and the meeting agreed that States should determine this staffing within their national regulations, taking into account their specific context, including the level of automation of their fire trucks, response time of backup supporting agencies and the type of overdraft operating. These regulations should address issues such as RFF staff selection criteria, training curriculum and certification, periodical medical examination, etc.. In this regard, the meeting was of the view that ICAO should endeavour to develop appropriate guidance material on this subject.

6.7 In the light of the above considerations, the meeting re-affirmed the relevancy AFI/7 RAN meeting Conclusion 4/6 and APIRG Conclusion 14/2 a) and further developed the following draft conclusions:

**DRAFT CONCLUSION 6/6: RESCUE AND FIRE FIGHTING**

**THAT:**

**STATES THAT HAVE NOT DONE SO DEVELOP APPROPRIATE NATIONAL RFF REGULATIONS BASED ON ICAO REQUIREMENTS IN THIS FIELD.**

**ICAO DEVELOP AND MAKE AVAILABLE TO STATES APPROPRIATE GUIDANCE MATERIAL ON RFFS STAFFING.**

**STATES, WHICH HAVE NOT DONE SO, GIVE PRIORITY TO THE PROVISION OF ADEQUATE RESCUE TOOL AND PROTECTIVE MATERIAL FOR RFF STAFF.**

**STATES REINFORCE THE EXCHANGE OF EXPERIENCE IN THIS FIELD AND IF NECESSARY, CALL ON EXPERTISE AVAILABALE IN SOME STATES IN THE REGION AND AT ICAO REGIONAL OFFICES FOR ASSISTANCE.**

**STATES CONSIDER HOSTING ICAO ORGANISED REGIONAL AND/OR SUB-REGIONAL WORKSHOPS IN ORDER TO ENSURE MORE PARTICIPATION.**

**7. Amendment No. 7 to Annex 14, Volume I.**

7.1 The content of amendment No. 7 to the ICAO Annex 14 Volume I was discussed. It was emphasised that the amendment is as a result of a proposal to upgrade some Recommendations in Annex 14, Volume I to Standards in order to improve safety of aircraft operations at aerodromes by strengthening the aerodrome certification process, and emphasizing the need to keep the manoeuvring area free of harmful irregularities which would otherwise cause foreign object damage to aircraft. The amendment also has recognized the need to upgrade the recommendation to report bird strikes to ICAO to a standard and it has included additional material to expound on the requirement for aerodrome fences for purposes of control of not only unauthorized persons but also animals.

7.3 The meeting took note of these developments and agreed that all States should respond to the respective ICAO State Letter before the deadline of 11<sup>th</sup> July 2005.

## **8. Agenda Item 5: Status of Review of the New Larger Aircraft Task Force Report**

8.1 Following the discussions at AOP/SG/4, the NLA/TF was set up to evaluate the likely impact of the NLAs on aerodromes in the AFI Region and advise States on the appropriate action in order to facilitate forward planning. It has held two meetings, one in March 2003 and the other in May 2005. On its part, ICAO developed a two-fold action plan for the introduction of NLAs into international civil aviation service (Ref. State Letter No. 4/5.7 – 03/80 of 25/07/03). This entailed the development and the publication of a circular on New Larger Aeroplane Operations at Existing Aerodromes that was published as Circular 305 – AN 177 in June 2004 and the review of the Annex 14 Volume I Code F requirements based on the studies conducted within and outside ICAO.

8.2 The meeting was informed of the action launched by several European Civil Aviation Authorities to conduct specific studies intended to facilitate the introduction of NLAs. The Airbus A380 Airport Compatibility Group AACG (comprising of France, Germany, Netherlands and UK), was formed in order to ensure the recommendations and guidance materials are issued in a coordinated manner. At the end of 2002, this group issued the Common Agreement Document, which considers ways to facilitate the introduction of the A380 for safe and harmonized operations on existing airports not meeting Code F requirements. Further, the European Civil Aviation Conference (ECAC) has established an internet site which contains details of several aeronautical studies. Its address is: <http://www.ecac-ceac.org/nla-forum>.

8.4 The meeting emphasized that alternate aerodromes, as destination aerodromes, should meet minimum requirements to accommodate NLA. For code E aerodromes not meeting code F requirements, aeronautical studies should consequently be conducted. These specific studies should lead to interim mitigation measures/procedures to be applied for NLA operations.

8.5 In view of the above, the Sub-Group adopted the following draft Conclusion:-

### **DRAFT CONCLUSION 6/7: IMPACT OF THE NLAs**

#### **THAT:**

**SPECIFIC AERONAUTICAL STUDIES CONDUCTED BY STATES IN THE REGION TO ACCOMMODATE NLA BE SHARED WITH OTHER STATES THROUGH THE ICAO SECRETARIAT AND OTHER MEANS.**

**WHEN CONSIDERING DEVELOPMENT OF NEW AIRPORTS, CONSIDERATION OF SOME FACILITIES REQUIRED FOR CODE F AERODROME, INCLUDING LAND ACQUISITION, STRENGTH AND DIMENSIONS OF BRIDGES AND CULVERTS, ETC., IN THE FIRST PHASE IS PRUDENT.**

**THE NLA/TF SHOULD BE DISBANDED AND ANY ADDITIONAL MONITORING BE UNDERTAKEN UNDER THE AUSPICES OF AOP/SG.**

## **9. Any other business.**

### **Communication among members of the AOP/SG**

9.1 The meeting agreed that technology is now available to ensure continuous exchange of information amongst members of the AOP/SG. The meeting was of the view that, in addition to e-mail communication that should be used amongst individuals, consideration should be established to ensure a coordinated manner in which information is passed around.

### **AFI Safety Enhancement Team (ASET)**

9.2 Committed to the safety enhancement in AFI, ICAO has enlisted its support to the establishment of ASET. The ASET provides an independent and an appropriate forum to various aviation organizations including *ICAO, IATA, AFCAC, AFRAA, AFRASCO, ASECNA, IFALPA, IFATCA, ACI, JAA, FAA, AIRBUS INDUSTRIES, BOEING, ATNS, ASA* and the **Netherlands CAA** to develop and implement corrective measures designed to support the improvement of air safety in Africa and Indian Ocean (AFI). ASET has set an objective of a 50% reduction of AFI accident rate by 2010. The IATA representative informed the meeting that ASET has held its first meeting in February 2005 and it is expected that the recommendations shall be submitted at the African Union Air Transport Ministers' meeting scheduled to be held 16-19 May 2005 in South Africa.

### **Participation at AOP/SG Meetings.**

9.3 The meeting appreciated the encouraging response to requests for participation at the AOP/SG meetings. It was however emphasized that in order to facilitate the discussions, it was necessary to ensure that among the participants, there are some who were present at previous meetings. This way, the meeting will not be obliged to repeat discussions. The meeting therefore adopted the following draft conclusion:-

#### **DRAFT CONCLUSION 6/8: CONTINUITY OF PARTICIPATION AT AOP/SG MEETINGS.**

**THAT STATES, AS MUCH AS POSSIBLE, ENSURE THAT THEIR DELEGATIONS TO AOP/SG MEETINGS DO NOT CHANGE TOO FREQUENTLY TO MAINTAIN CONTINUITY.**

### **10. Action by the APIRG/15 Meeting**

10.1 The APIRG/15 Meeting is requested to adopt the report of the AOP/SG/6 and the draft Conclusions thereof.

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