



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**  
**AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP**  
**NINETEENTH MEETING (APIRG/19)**  
**Dakar, Senegal, (28 – 31 October 2013)**

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**Agenda Item 3.2: Air Traffic Management / Search and Rescue (ATM/SAR)**

**REVIEW OF THE OUTCOME OF THE THIRTEENTH MEETING OF THE AIR TRAFFIC  
MANAGEMENT / AERONAUTICAL INFORMATION  
MANAGEMENT / SEARCH AND RESCUE SUB-GROUP**

*(Presented by the Secretariat)*

**SUMMARY**

This working paper presents the outcome of the Thirteenth Meeting of the Air Traffic Management/Aeronautical Information Management/Search and Rescue (ATM/AIM/SAR SG/13) for endorsement by the APIRG, and proposes action be taken by the meeting on the draft Conclusions and Decisions, including other regional initiatives. The paper focuses on areas related to air traffic management (ATM) and search and rescue (SAR). Details of issues relating to Aeronautical Information Service and Cartography (AIS/MAP) will be addressed under agenda item 3.5. In addition, Reduced Vertical Separation Minimum (RVSM) issues are addressed comprehensively in a separate working paper under agenda item 3.3.

**REFERENCES**

- APIRG Procedural Handbook
- APIRG/18 Report
- ATM/AIM/SAR SG/13 Report

*Strategic  
Objectives:*

This working paper relates to Strategic Objectives A and C.

**1. INTRODUCTION**

1.1 The thirteenth meeting of the Air Traffic Management/Aeronautical Information Management/Search and Rescue Sub-Group (ATM/AIM/SAR SG/13) was held at the Nairobi Safari Club Hotel in Nairobi, Kenya from 16-19 September 2013. Mr Geoffrey Okot, Manager Air Traffic Management from Uganda Civil Aviation Authority, was elected as Chairman of the Sub-Group.

**2. DISCUSSION**

**Follow-up on SP AFI RAN Recommendations, APIRG Conclusions and Decisions within the Framework of APIRG relevant to the ATM/AIM/SAR SG**

2.1 The Sub-Group reviewed 179 Conclusions and Decisions from the APIRG/13 Meeting in 2001 to the APIRG/18 in 2012, pursuant to APIRG Decision 18/01: *Review and Update of APIRG Conclusions and Decisions*. After carrying out the above tasks, the Sub-Group agreed that 129 Conclusions and Decision had become redundant (overtaken by events, action completed, included in other documents, etc.) or were duplicated in other APIRG Conclusions or Decisions. As such the Sub-Group proposed the retention or reformulation of 50 Conclusions and Decisions as at **Appendix 3.2A** to this working paper.

2.2 The Sub-Group formulated the following Draft Conclusion which is proposed to supersede all previous APIRG Conclusions regarding the implementation of air traffic control service in the AFI Region:

**DRAFT CONCLUSION 13/01: IMPLEMENTATION OF AIR TRAFFIC CONTROL SERVICE**

**That,**

**By 14 March 2014, AFI States that have not already done so, establish Class A airspace in accordance with Section 2.6 of Annex 11 to the Chicago Convention, and implement air traffic control services in the lower airspace as follows:**

- a) **establish Class A airspace above FL145 for all ATS routes referred to in Table ATS 1 of the AFI Air Navigation Plan (Doc 7474) as amended;**
- b) **establish Class A airspace above Flight Level 195 elsewhere within the FIR; and**
- c) **implement air traffic control service in all terminal control areas (TMA) and control zones (CTR).**

**Note:** This Draft Conclusion is to supersede all previous Conclusions of APIRG relating to the implementation of ATC, including Conclusions 13/31, 13/41, 14/20, 14/26, 15/45 and 16/45.

2.3 The Sub-Group deliberated on the utility and status of ICAO Doc 003 as a “one stop” source document and guidance to inform States on planning and implementation. It was noted that in recent years there had been rapid changes in planning methodologies and tools made available. In this regard, it was acknowledged that significant changes are required to keep Doc 003 up to date. The Sub-Group requested the Secretariat to take necessary action to revive at least those aspects of Doc 003 which continue to be relevant.

**Review and Update of the AFI SSR Code Allocation Plan**

2.4 The Sub-Group recalled that the APIRG/14 meeting in June 2003 adopted Conclusion 14/25 regarding inclusion of the updated SSR Code Allotment Plan. The meeting noted that many States in the AFI Region have or are in the process of introducing radar surveillance as part of their strategy to meet operational requirements. In this regard, the existing SSR code allotment plan no longer serves States and air navigation service adequately.

2.5 In view of the above and in order to avoid shortage of SSR codes for some States in the near future, the Sub-Group agreed to review the AFI SSR Code Allotment Plan, and accordingly formulated the following Draft Decision establishing a working group to undertake the task of reviewing and updating the Plan:

**DRAFT DECISION 13/02: ESTABLISHMENT OF THE AFI SSR CODE ALLOCATION AND ASSIGNMENT WORKING GROUP**

**That, the AFI SSR Code Allocation and Assignment Working Group (ASCAA WG) is established with the terms of reference as at Appendix 3.2B to this working paper, to review and update the AFI SSR Code Allotment Plan and code assignment principles.**

### **CNS/ATM Coordination Issues**

2.6 On 18 September 2013, the ATM/AIM/SAR and CNS Sub-Groups convened in a joint session (JSSG) to discuss issues that required coordination between the two Sub-Groups. The JSSG noted that the AFI Region had advanced in the implementation of surveillance technologies. However, in many States the operational planning and application of the technologies was lagging. Amongst others, radar surveillance (SSR) was being used for “monitoring” of procedural ATC separation. Members of the Sub-Group also highlighted the concern that at national levels, some CNS technologies were introduced without any or adequate consultation with users (ATC, AIS/Message Handling, etc.).

2.7 Accordingly, the Sub-Group urged States to take necessary measures to optimize the operational use of existing and planned technologies, and in particular take into consideration the PBN related operational improvements that can benefit (efficiency, airspace capacity, safety and environmental protection) from such technologies. It was agreed that coordination to ensure that operational requirements to inform on the planning and implementation of CNS infrastructure should be improved, not just at Regional level but at the level of individual FIRs and States.

### **CNS support to air traffic services**

2.8 The JSSG noted that AFI Tactical Action Group (TAG) had recorded a high number of Unsatisfactory Condition Reports (UCRs) including AIRPROXs, in which lack of/or poor communication had been a cause or contributing factor. Some FIRs were still relying on High Frequency (HF) communication for air/ground and ATS/DS, while some had gaps in the coverage of communication with aircraft. The JSSG urged States and ANSPs to take necessary action without delay in order to address the deficiencies identified by the TAG.

### **Missing Flight Plans**

2.9 The JSSG was concerned on the unbaiting challenge of missing flight plans and urged States to review the procedures that could lead to the use of outdated information from their AIPs and ICAO Documents, such as Doc 7910, and ensure that operational staffs, both CNS and ATM were provided with the necessary awareness.

2.10 Given the dissolution of the FPLT Task Force, the JSSG agreed that the two Sub-Groups should continue looking into and addressing the flight plan related challenges. More detailed discussion on issue of “missing flight plans” is under the subject “ICAO 2012 Flight Plan Format – Post Implementation” below.

### **RVSM Operations and Monitoring**

2.11 The Sub-Group endorsed the amendments to the AFI RVSM Safety Policy, as at **Appendix 3.2C** to this working paper and accordingly requested the ICAO AFI Regional Offices to circulate the amended document to AFI States.

2.12 The Sub-Group reviewed the tasks pertaining to the AFI Scrutiny Group and noted that these were already incorporated into the tasks of the TAG and the ATS Incident Analysis Group (AIAG). In this regard, it was noted that monthly reviews of RVSM operational errors through the TAG teleconferences were adding value to the process and were contributing to the expectations of the AFI Scrutiny Group.

### **RVSM Approvals survey**

2.13 The Sub-Group noted that out of a total of 73230 flights assessed in December 2012, 46 aircraft were found to be non-RVSM approved, which is a reduction from 2011 where 104 aircraft were found to be non-RVSM approved. The Sub-Group urged States and ANSPs to support ATM coordination between area control centres (ACCs)/Flight Information Regions (FIRs) when non-RVSM

approved State aircraft are being transferred with 2000 feet separation, and where non-RVSM approved aircraft request higher flight level after transfer of control. States and ANSPs were also urged to inform ARMA of suspected non-RVSM approved flights in order for appropriate action to be taken.

2.14 The Sub-Group noted information provided on Altimetry System Error (ASE) results collected using primarily the GMU (GPS-based monitoring unit) height monitoring system which is now being incorporated into the AFI RVSM Collision Risk Assessment. Out of 538 aircraft monitored by ARMA, 255 (48%), aircraft still require height monitoring in accordance with Annex 6 to the Chicago Convention. The Sub-Group reviewed a table reflecting ASE per aircraft as monitored by the ARMA, and noted significant ASEs with regard to the following aircraft: B727, FA10, H25A, H25B and GLF2.

2.15 The Sub-Group urged States' civil aviation authorities to ensure that operators comply with the Annex 6 Standard for height monitoring and maintain contact with ARMA with the objective of ensuring that States meet their obligation with respect to the height monitoring Standard.

### ***AFI RVSM Collision Risk Assessment***

2.16 The Sub-Group reviewed information relating to the outcome of the sixth Collision Risk Assessment (CRA 6) conducted in 2011 for the AFI Region, which *inter alia*, provides an assessment and information about ATM Coordination failures and errors which are generically captured in the Total Vertical Collision Risk estimate when applicable.

2.17 The Sub-Group noted that there was a decrease in the rates of improper crossings at waypoints or navigational facilities where aircraft are at the correct same semi-circular rule flight level with standard RVSM separation being broken. The Sub-Group however, noted with concern that in too many cases, the required separation had been restored as a result of ACAS intervention.

2.18 The Sub-Group also noted with concern that, while the estimate of the Technical Vertical Collision Risk was calculated to be below the Technical Vertical Target Level of Safety (TLS) of  $2.5 \times 10^{-9}$  fatal accident per flight hour, the estimate of the Total Vertical Collision Risk still did not meet the Total Vertical TLS of  $5 \times 10^{-9}$  fatal accident per flight hour. The result of the Total Vertical Collision Risk was largely influenced by the risk of aircraft levelling off at a wrong opposite- or same-direction flight level.

2.19 The main contributing factors to the Total Vertical Risk estimate not meeting the Target Level of Safety were as follows:

- a) Human Factors; either ATC or flight deck originated.
- b) Lack of or improper coordination between ATC sectors and FIRs, which continues to be a dominant cause.
- c) Safety events resulting from unreliable communications.

2.20 The Sub-Group urged States and ANSPs to take effective measures to ensure that the causal factors are addressed, in particular those relating to air traffic coordination failures between area control centres (ACCs).

### ***RVSM implementation deficiencies***

2.21 The Sub-Group reviewed the list of deficiencies related to RVSM which contained information updated as of 6 September 2013 and called for States to provide updates on their status to the ESAF and WACAF Regional Offices or ARMA for necessary update of the deficiency list. The meeting also agreed that the RVSM deficiency list should be incorporated into the AFI Deficiency List.

### **PBN and AFI ATS Route Network**

2.22 The Sub-Group noted that the Twelfth Air Navigation Conference (AN-Conf/12) which was held in Montréal, from 19 to 30 November 2012, had adopted Recommendation 1/1 introducing the revised draft Fourth Edition of the Global Air Navigation Plan (Doc 9750, GANP). It was noted that in addition to building on the past editions of the GANP, the new GANP identifies the need for the development of standards and recommended practices, regulatory requirements, procedures and technology associated with the aviation system block upgrades (ASBU) methodology. In this regard, the Sub-Group agreed that in order to provide for a coordinated development, the AFI Optimized Route Trajectories and Airspace (AORTA) is introduced to provide for the identification of specific elements of implementation carried over from the work done under the 3rd Edition of the GANP and the Regional Performance objectives, to the 4th Edition of the GANP. AORTA is a package of specific end to end (departure to arrival) operational improvements which will be phased for implementation at specific target dates on a Regional (AFI) basis. As such, the AORTA consists of the following:

- a) Regional ATS routes (en-route structure) – Developed under agreement to be proposed for inclusion in the ANP as part of regional requirements.
- b) Terminal routes (PBN-based SIDs/STARs) – developed by States/ANSPs in coordination with adjacent airspaces as necessary, intended to cater specifically for transition to/from the optimized en-route structures.
- c) PBN Instrument approach procedures intended to meet the requirements of the AFI Regional PBN Implementation Plan.

2.23 The Sub-Group acknowledged that in order to arrive at the specific elements (ATS routes, etc.) forming part of AORTA, States will continue to be guided by the Regional PBN Implementation Plan as updated and aligned within the framework of the ASBUs.

### ***Critical path and implementation priorities***

2.24 The Sub-Group agreed on the criteria for considering user requirements and developing trajectories, based on the following elements:

- a) Aircraft Equipage.
- b) Early, accessible benefits.
- c) Significance of benefits.
- d) Surveillance implementation.
- e) Duration of flights.
- f) Minimum benefits.

2.25 In addition to the above, the following were agreed by the Sub-Group:

- a) The Priority Matrix established by the Working Group will be applied.
- b) City pair segments of four (4) hour (jet time) flights or more shall be prioritised.
- c) Implementation performance will be based primarily on the best approximation of the user proposals. The percentage difference between the user proposals and the implemented trajectories shall be a measure of the shortfall which should remain to be addressed.

2.26 The Sub-Group reviewed and updated the AARC as at **Appendix 3.2D** to this working paper, to reflect targeted operational benefits for the specific improvement, as well as benefits at the time a specific ATS route is submitted to the ICAO Regional Office for the ANP amendment proposal to be processed.

2.27 In view of the above, the Sub-Group agreed on the following Draft Conclusion:

**DRAFT CONCLUSION 13/03: AFI ATS ROUTE CATALOGUE (AARC)**

**That, In order to facilitate the review and implementation of user ATS route requirements:**

- (a) **the AARC be revised to reflect operational benefits as indicated in Appendix 3.2D to this working paper; and**
- (b) **AFI States and concerned international organizations be urged to review the Catalogue every six (6) months (January and July), note developments, and take action as applicable.**

2.28 In order to provide focus for ANSPs, the Sub-Group agreed that the development of ATS routes to revise the AFI ATS route network (thus forming part of AORTA) should continue to be within the framework of the PRND Working Group and should follow the prioritization established by the Working Group. While users may still make proposals for ATS routes amendments through States, outside the purview of the Working Group, implementation priority shall be given to ATS routes proposed through and endorsed by the PRND Working Group, except where safety may justify otherwise.

2.29 The Sub-Group noted with appreciation the successful outcome of the PBN Airspace Design Workshop, Johannesburg 19-30 August 2013, which was organized by the Global PBN Task Force Go Team. Recognizing the value of the event, and noting that much training was still necessary to enable expeditious implementation, the Sub-Group requested ICAO to arrange seminars/workshops to which implementation experiences in the Region could also be shared to complement specific PBN expertise provided by ICAO.

2.30 The Sub-Group also acknowledged the importance of ATM coordination meetings arranged by the ICAO Regional Offices, in order to address multiple of issues including, safety, traffic coordination, the establishment of ATS routes, MET and SAR services. It was noted that these events had resulted in the effective resolution of safety concerns and improvement of efficiency. However, the Sub-Group was cognizant that various forums could result in the undesirable proliferation of bodies and meetings. In this regard, the Sub-Group agreed that to the extent possible, meetings should be combined and aligned with the AFI Homogeneous ATM areas and major traffic flows/routing areas and hence the Implementation Coordination Groups established in the 3<sup>rd</sup> Ed. GANP (Doc 9750) and AFI CNS/ATM Implementation Plan (Doc 003).

2.31 The Sub-Group was however, mindful that some of the tasks undertaken by the informal ATM coordination meetings were sub-regional in nature and agreed that consideration should therefore be taken in consolidating the forums, *inter alia*, to avoid groups that may be too large or meetings that may be long due to the number of tasks to be dealt with in their agenda. In this respect, the Sub-Group also considered additional tasks for the PBN/GNSS TF, but concluded that such action would detract the focus and progress of the Task Force.

2.32 Based on these discussions, the Sub-Group formulated the following Draft Decision:

**DRAFT DECISION 13/04: REACTIVATION AND REVIEW OF THE TERMS OF REFERENCE OF CNS/ATM IMPLEMENTATION COORDINATION GROUPS (ICGs)**

**That, in order to facilitate coordination in the planning and implementation of CNS systems for ATM, as well as the harmonized implementation of ATM performance improvements:**

- a) **The Implementation Coordination Groups (ICGs) as established in the AFI CNS/ATM Implementation Plan (Doc 003) be reactivated;**
- b) **The activities of the ICGs be expanded to include ATM coordination tasks that had been carried out in informal ATM Coordination Meetings;**
- c) **The number and alignment of the ICGs take into consideration the added tasks, in particular those that are sub-regional in nature; and**
- d) **The terms of reference of the ICGs be revised as at Appendix 3.2E to this working paper.**

**Note:** This Draft Decision is the result of the outcome of the joint session of the ATM/AIM/SAR SG/13 and the CNS SG/5 meetings, and is reflected in the reports of both meetings.

2.33 The Sub-Group proposed the revised terms of reference of the PBN Route Network Development Work Group as at **Appendix 3.2F** to this working paper in order to adequately reflect the assignment by APIRG/18 of tasks relating to environmental protection.

#### ***AFI Flight Procedure Programme***

2.34 The Sub-Group was briefed on the successful establishment of the AFI Flight Procedure Programme (FPP) to advance the implementation of PBN in the Region pursuant to Assembly Resolution A37-11. It was noted that the FPP, which is located in Dakar, Senegal, was launched under the initial sponsorship of three (3) years by the French Civil Aviation Directorate (DGCA) and ASECNA. The FPP is hosted by ASECNA which is also providing other resources. The meeting recalled the State Letter from the ICAO Secretary General Ref.: AN 11/45.2.1-13/18 dated 28 February 2013 as well as the questionnaire attached thereto relating to, inter alia, States' PBN implementation capacity, options for participation and associated benefits. It was noted that only 12 States had responded to the State Letter. As such other States were requested to respond.

2.35 Questions were raised regarding the regulatory authority under which the training part of the FPP would be functioning, as well as the qualification status of the trainees. In addition, clarifications were requested with respect to the liability issues associated with the final output of the FPP, in particular the flight procedures that would be developed for States. The FPP welcomed the queries and indicated that it would be undertaking consultations within ICAO to provide the responses on the issues raised.

2.36 The Sub-Group also requested information regarding the finality of the APIRG Conclusion 17/52: *Dissemination of a letter inviting proposals for establishment of the AFI Flight Procedures Programme (FPP)*. It was indicated that consultations and discussions led by the ICAO Director of Air Navigation Bureau were undertaken in a side meeting during the APIRG/18 meeting in Kampala in March 2012, on the best way to advance the AFI FPP, taking into consideration several factors including experiences from the establishment and operation of the APAC FPP. From such consultations, it had been agreed that the D/ANB would carry out further consultations at ICAO HQ during forthcoming meetings that would be convened there. The outcome of such process led to the decision which was captured in the circular letter by the ICAO Secretary General Ref.: AN 11/45.2.1-13/18 dated 28 February 2013 and subsequent developments.

#### **Safety Management**

2.37 The Sub-Group reviewed the outcome of the fifth meeting of the AFI Tactical Action Group (TAG/5), as well as safety issues that had been identified and addressed in a series of informal ATM coordination meetings arranged by the ICAO ESAF and WACAF Regional Offices.

2.38 It was noted that updates from States that had been having high numbers of UCRs had been limited. However, through interventions from the Regional Offices, some information had been obtained on progress being made to implementation the Corrective Action Plans (CAPs) that the States had agreed with the TAG, as well as commitments they had made at the ATM coordination meetings. Among others, it was noted that VSAT installations had been completed in the Kinshasa FIR, thereby addressing essential communication requirements, and that Luanda FIR had scheduled to carry out CPDLC trials in January 2014, with implementation of the same expected by March 2014.

2.39 The Sub-Group noted that notwithstanding the above, the TAG/5 meeting had established the TAG Task Team (TAG/TT) to develop a proposed Special Airspace Structure and Systems of Operations (SASSO) to be presented to the concerned States for consideration and application. The output of the TT would be focused on immediately accessible safety improvements, such as changes in ATS route structures in the concerned FIRs.

2.40 The Sub-Group noted that from the Tenth ATS Incident Analysis Group meeting (AIAG/10) and the TAG/5 meeting convened in March 2013 (Johannesburg, South Africa), it had been identified that there was a similar pattern of causal and contributing factors to ATS incidents in most FIRs as follows:

- a) air traffic controller proficiency was inadequate due to deficiencies in training and lack of recurrent (refresher) training;
- b) shortage of qualified air traffic controllers resulting in understaffed shift operations (one air traffic controller manning more than one position, etc.), controller overload and other human factors issues;
- c) lack of specialized training for air traffic controllers;
- d) airspace organization that has been overtaken by events, no longer pertinent to existing traffic densities and/or complexities;
- e) inadequate and unserviceable communication equipment;
- f) lack of effective backup power for ATC equipment;
- g) outdated operational procedures, including Letters of Procedure (LOPs); and
- h) lack of internal (within the ANSP) coordination between ATS unit.

2.41 The Sub-Group acknowledged the significant impact of inadequate ATC proficiency in most of the AFI Region. It was acknowledged that there were several areas in which shortcomings existed with varying degrees from one ANSP to another as follows:

- a) Different standards applicable in aviation training academies, schools and institutions;
- b) Lack of effective abridging (conversion) training being provided by ANSPs in order to bring their candidates to set standards and to specific requirements of air traffic services units (ATSUs) depending on airspace configuration, daily aircraft movements, whether procedural or radar control, etc.;
- c) Type and quality of on-the-job (OJT) training being provided, covering both initial and in-service training;
- d) Quality of recurrent training being provided;



- e) Special training including introduction/indoctrination to new technologies; and
- f) Development and implementation of training programmes and training plans (Ref. ICAO USOAP Audit reports).

2.42 In light of the above, the Sub-Group was of the view that the issue should be studied in detail in order to identify the underlying issues and determine effective remedies thereto. Accordingly, the Sub-Group formulated the following Draft Decision:

**DRAFT DECISION 13/05: ESTABLISHMENT OF THE ATS COMPETENCIES STUDY GROUP**

**That, the ATSCSG be established with the Terms of Reference as at Appendix 3.2G to this working paper, in order to**

- a) study the shortcomings in ATC training including States' (and ANSPs) training programmes and plans; and**
- b) establish and provide recommendations that would address issues relating to lack of competency of ATS personnel.**

**Strategic Lateral Offset Procedures (SLOP)**

2.43 Given the critical importance of SLOP in reducing the risk of collision, the Sub-Group stressed that States that had not already done so should give effect to Conclusion 17/43 without further delay and forward copies of aeronautical publications for the implementation of SLOP, to ICAO ESAF and WACAF Regional Offices by 30 November 2013.

**ATM Contingency Arrangements**

2.44 The Sub-Group noted with concern that, while at its 17th Meeting in 2010, APIRG had adopted a contingency plan (CP) template to complement the support provided by the Regional Offices, many States were yet to develop or update their CPs.

2.45 The Sub-Group noted that from information provided to the ICAO Regional Offices, many States had not included elements relating to public health emergencies in their CPs, and guidance had been requested. Accordingly, the Sub-Group agreed on the modification of the APIRG CP Template to guide States in this regard. The Sub-Group also highlighted the importance of consultation with users in the development of CPs, pursuant to Section 2.30 of Annex 11.

2.46 Pursuant to APIRG Conclusion 18/14, the Sub-Group adopted a volcanic ash contingency plan (VACP) developed by adapting the EUR/NAT VACP and agreed that it should be part of the ATM contingency plan as an appendix thereto.

2.47 Given that the ATM/MET Task Force had completed its initial primary task of developing the VACP Template, the Sub-Group deliberated at length on the merits of continuation of the Task Force and agreed that the Task Force should undertake its remaining tasks under revised terms of reference and the direction provided by the MET Sub-Group. As such, the Sub-Group reviewed the terms of reference of the ATM/MET Task Force that had been adopted by the APIRG/18 Meeting as at **Appendix 3.2H** to this working paper, and proposed the revised terms of reference of the Task Force as at **Appendix 3.2I** to this working paper.

2.48 Based on the above, the Sub-Group formulated the following Draft Conclusion and Decision:

**DRAFT CONCLUSION 13/06: INTEGRATION OF THE VOLCANIC ASH CONTINGENCY PLAN TO THE AIR TRAFFIC MANAGEMENT CONTINGENCY PLAN**

**That, the AFI Volcanic Ash Contingency Plan at Appendix 3.2J to this working paper be integrated as an Appendix to the AFI ATM Contingency Plan.**

**DRAFT DECISION 13/07: REVISED ATM/MET TASK FORCE TERMS OF REFERENCE**

**That, the Terms of Reference given in Appendix 3.2I to this working paper, be revised to focus on the activities of the Task Force on the AFI regional requirements only.**

**Search and Rescue**

2.49 The Sub-Group noted continuing the lack of implementation of SAR provisions and the long outstanding deficiencies in the AFI region and requested ICAO to explore high level measures to sensitize States' authorities with regard to SAR provisions and requirements. The Sub-Group further requested the Regional Offices to circulate State Letters requesting AFI States to provide information on SAR implementation by responding to a questionnaire by 31 December 2013.

2.50 The Sub-Group also requested ICAO to develop a SAR webpage, with the objective of capturing and publishing information on SAR implementation as well as sensitizing the States' SAR authorities.

2.51 In view of the above, the following Draft Conclusions were formulated:

**DRAFT CONCLUSION 13/08: SAR DATA COLLECTION AND DEVELOPMENT AND MANAGEMENT OF AN AFI SAR WEB PAGE**

**That,**

- a) **AFI States provide SAR implementation information reflected in the questionnaire at Appendix 3.2K to this working paper, not later than 31December 2013, to the ICAO ESAF and WACAF Regional Offices;**
- b) **ICAO develop and manage a webpage under ESAF and WACAF websites, to post information from AFI States on SAR implementation and activities; and**
- c) **AFI States forward to the ICAO regional offices regular information on their SAR activities, for posting on the website.**

**DRAFT CONCLUSION 13/09: TEAM OF SAR EXPERTS**

**That, in order to support the implementation of SAR services in AFI States, ICAO establish a SAR Team of Experts that could, at the request of a State, be called upon to assist States in the establishment of SAR systems including legislation frameworks and operational documentation.**

2.52 The Sub-Group noted a proposal by the APAC Region SAR Task Force for a joint meeting with the next ASSI Task Force, preferably hosted by a State in the Indian Ocean interface area

between the AFI and APAC regions. The Sub-Group recognized the significant potential benefits of such an event and requested the Secretariat to facilitate the coordination of such an event.

2.53 The Sub-Group reviewed the SAR performance objectives as at **Appendix 3.2L** to this working paper and agreed on the identification of sub-regional economic bodies such as ECOWAS, CEMAC, EAC, as enabling stakeholders. The Sub-Group also proposed the updated terms of reference of the ASSI Task Force as at **Appendix 3.2M** to this working paper.

### Civil/Military Cooperation

2.54 The Sub-Group noted that as a follow up to the outcome of the Global Air Traffic Management Forum on Civil/Military Cooperation (GATM FCMC) (Montreal, Canada from 19 to 21 October 2009), a Civil/Military Cooperation Seminar had being organized under a Special Implementation Project (SIP) and scheduled to be convened in Nairobi, Kenya from 25 to 28 November 2013. States were urged to coordinate with their military counterparts in order facilitate the most optimum participation of the military counterparts in the Seminar. The Sub-Group also acknowledged the importance for participation of international humanitarian organizations such as the World Food Programme (WFP) participate at the event and requested the Secretariat to take necessary action in this regard.

### ICAO 2012 Flight Plan Format – Post Implementation

2.55 The Sub-Group noted with appreciation that the NEW ICAO model flight plan was successfully implemented in the AFI Region along with other ICAO Regions on 15 November 2012, following intensive AFI-wide efforts by the Task Force and the ESAF and WACAF Regional Offices.

2.56 The Sub-Group also noted that while the rate of missing flight plans was slightly reduced towards and during the launch of the NEW ICAO flight plan, the rate of missing flight plans started to increase after 15 November 2012.

2.57 From various collective efforts, as well as information provided by the Johannesburg Aeronautical Fixed Telecommunication Network (AFTN) main centre (which was experiencing 7-10% of the missing flight plans monthly) in 2013, the Sub-Group noted that the following were among the prominent causal or contributing factors for missing flight plans:

#### 2.57.1 Operational issues:

- a) Incorrect equipage entries in item 10a and 10b of the flight plan; not conforming to Amendment 1 of Doc 4444.
- b) Syntax errors – not including the waypoint entry/exit point on/off a route, incorrectly formatted co-ordinates, using “Oscar” instead of “Zero” and vice versa.
- c) Route errors – using, withdrawn or non-existent navigational aids and waypoints as well as incorrect route names.
- d) Mismatch with requested flight level and intended ATS route, i.e. requested flight level is too high (or too low) for the requested ATS route.
- e) Non-provision of critical data in item 18 – missing estimated elapse times (EET) to Flight Information Region (FIR) boundaries; missing or incorrect PBN capability data; missing Communication (COM), Navigation (NAV) and/or Data (DAT) information when this is required as indicated in item 10a and 10b.
- f) Missing or incorrect nomination of search and rescue requirements.
- g) Message handling centres not issuing service messages (e.g. query on missing or rejected flight plan), or not responding to such messages when received from other centres.

#### 2.57.2 Other issues

- h) Flight not filed or filed in an incomplete manner; i.e. flight plan not transmitted but flight allowed to depart.
- i) Message handling systems (engineering) errors at departure, downstream or at destination.
- j) Flight plans filed over the radio (airborne) without all necessary information/data.
- k) Flight plans sent to incorrect addresses.

2.58 The Sub-Group recalled that in many cases the missing flight plans resulted in air traffic controllers being required to copy *airborne flight plans*, sometimes from poor HF communication transmissions. It was highlighted that compelling (or exposing) air traffic controllers to obtain crucial flight plan information in this manner compromised safety.

2.59 States were urged to take necessary measures to address the identified causal/contributing factors and that remedial action should include the establishment or review of operational procedures, as well as appropriate, adequate training of operational (message handling, air traffic control, etc.) staff.

2.60 The Sub-Group expressed concern that notwithstanding measures taken over many years within the framework of APIRG and specific efforts by Regional Offices, the issue of missing flight plans has prevailed, with obvious contribution to degradation of safety and efficiency. The Sub-Group deliberated at significant length on the issue of implementing effective measures to realise the much sought and urgent results and agreed that one of the solutions is for States to effectively implement Annex 2 standards on flight plans. The Sub-Group also acknowledged that the active involvement of users was paramount and agreed on the following Draft Conclusions:

**DRAFT CONCLUSION 13/10: IMPLEMENTATION OF FLIGHT PLAN STANDARDS IN ANNEX 2 TO THE CHICAGO CONVENTION**

**That, in order to support the effective implementation of international standards relating to flight plan:**

- (a) **operators and ANSPs should, take necessary measures to ensure that, prior to departure, flight plans are correctly filed and accepted;**
- (b) **AFI States and Air Navigation Service Providers be urged to:**
  - (i) **ensure that international flights are not released for departure without correctly filed flight plans; and**
  - (ii) **strongly discourage the acceptance of flights into their States/FIRs, whose standard flight plans have not been received;**
- (c) **AFI States regulatory bodies take necessary action to ensure effective implementation.**

## **DRAFT CONCLUSION 13/11: DISSOLUTION OF THE FPLT TASK FORCE**

**That,**

- a) the AFI Flight Plan Transition Task Force is hereby dissolved; and**
- b) the ATM/AIM/SAR Sub-Group should take necessary action to follow up on the post implementation issues of the NEW ICAO Flight Plan format.**

2.61 The Sub-Group noted the concern of users regarding actions that might be instituted by ANSPs in discouraging acceptance of flights without flight plans, that this could be applied in a way that jeopardizes safety. However, while acknowledged the concern raised, the Sub-Group was cognizant that States and ANSPs are not unaware of their obligations regarding safety. It was also noted that action to discourage flights without flight plans would not be inconsistent with national regulations giving effect to international standards in Annex 2 to the Chicago Convention. Furthermore, it was acknowledged that there are already FIRs in which flights without flight plans are not permitted to operate. The Sub-Group was informed that flights without flight plans were regarded as security concerns in some States. The Sub-Group urged States to take due cognizance of safety in ensuring compliance with the flight plan related international Standards.

### **Review of Air Navigation Deficiencies in the ATM and SAR Fields**

2.62 The Sub-group recalled the definition of “deficiency” as approved by the ICAO Council and that one of the regular tasks of APIRG was to identify, assess and report specific air navigation deficiencies affecting the ATM-and SAR fields.

2.63 The Sub-Group acknowledged that deficiencies in the competence of air traffic services and supporting personnel, as well as deficiencies in communication (infrastructure and operations) were among the leading causal factors of the safety issues reported to the AFI Tactical Action Group and other ICAO bodies.

2.64 It was recalled that APIRG/18 had adopted a list of minimum reporting areas for ATM, and SAR. The Sub-Group reviewed the list and proposed appropriate follow-up action by States to address the outstanding deficiencies.

2.65 The Sub-Group further noted that the reporting of deficiencies remained minimal and urged all civil aviation stakeholders to report deficiencies.

2.66 The Sub-Group recalled Conclusion 18/63: *Measures to Address Human Factors and Infrastructure Deficiencies*, which inter alia, calls for addressing human factor issues related to runway safety, and requested ICAO to urge States to implement runway safety, taking advantage of guidance material available from ICAO and IATA. The Sub-Group urged States and ANSPs to access information on runway safety made available on the ICAO and IATA websites, and which may accessed through following web links:

- a) ICAO Runway Safety Toolkit: <http://www.icao.int/safety/RunwaySafety/Pages/RnwyTlkt.aspx>.
- b) IATA Runway Excursion Risk Reduction Toolkit: <http://www.iata.org/iata/RERR-toolkit/main.html>.

### **Review of the ATM/AIM/SAR Sub-Group Terms of Reference and Future Work Programme**

2.67 The Sub-Group reviewed and updated the terms of reference (TOR) and the Work Programme of the ATM/AIM/SAR Sub-Group as reflected in **Appendix 3.2N** to this working paper.

**Date, Venue and Provisional Agenda of the Next ATM/AIM/SAR Sub-Group Meeting**

2.68 The Sub-Group agreed to convene its next meeting on a date to be coordinated by the Secretariat, taking into consideration other activities of the Region. In accordance with the standing arrangement for meetings to alternate between the ESAF and WACAF areas, it was agreed that the next meeting would be at the WACAF Regional Office, unless a State in the WACAF area offers to host.

**Other matters**

2.69 The Secretariat and delegates thanked Mr. Sadou Marafa, ICAO Regional Officer ATM, WACAF Office, for his service to the Region and conveyed their best wishes for a bright future following his retirement from ICAO at the end of September 2013.

2.70 The Sub-Group noted that the number of working paper/information papers contributed by States continued to be significantly low. It was also acknowledged that a contributing factor could be the late nomination of officials to prepare for and attend specific events. States were encouraged not to wait for invitation letters to events before commencing to compose material for contribution to APIRG bodies in the form of working/information papers. In this regard, it was recognized that issues to be addressed are known well in advance and the Sub-Group usually agrees on the provisional agenda for its forthcoming meeting.

2.71 The Sub-Group noted that while more than three years have elapsed since the introduction of paperless meetings in ICAO, including APIRG and its subsidiary bodies, many delegations were still not equipped with computer equipment to enable them to participate effectively in the meetings. States and organizations were urged to take necessary action in this regard.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- (a) Note the information and issues discussed in this working paper;
- (b) Endorse the report of the ATM/AIM/SAR SG/13 as at **Appendix 3.2O** to this working paper;
- (c) Endorse the Draft Conclusions and Decisions in the body of this working paper; and
- (d) Endorse the proposed consolidation of APIRG Conclusions and Decisions from 2001 to 2010 (APIRG/13 to APIRG/17) pursuant to Decision 18/01: *Review and Update of APIRG Conclusions and Decisions*, as well as the alignment of certain APIRG/18 Conclusions, as at **Appendix 3.2A** to this working paper.

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