



INTERNATIONAL CIVIL AVIATION ORGANIZATION
AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
SEVENTEENTH MEETING (APIRG/17)
(Burkina Faso, 2 to 6 August 2010)

**Agenda Item 3.4: Air Traffic Management (ATM) Review of the Work of the
ATS/AIS/SAR Sub-Group and Related Matters**

(Presented by the Secretariat)

SUMMARY

This paper presents the outcome of the tenth and eleventh meetings of the ATS/AIS/SAR Sub-Group, in particular ATM and SAR, as well as other related issues. The paper has given specific detail to issues that are new, will constitute major projects, or have wide spread impact, such as (RVSM), performance based navigation (PBN) and the new ICAO model flight plan that will be applicable in November 2012.

Details of matters relating to the fields of AIS and MAP that have been addressed by the Sub-Group will be addressed under agenda item 3.6.

Action by the meeting is at paragraph 3.

REFERENCES

Annex 11 to the Chicago Convention
Assembly Resolutions in Force (September 2007) (Doc 9902)
Global Aviation Safety Plan (GASP)
Special AFI RAN Meeting report
APIRG 16 Report
Related to Strategic Objectives: **A, C, D and E**

1. Introduction

1.1 The tenth meeting of the ATS/AIS/SAR Sub-Group was convened at the conference centre of the “Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar” (ASECNA) in Dakar, Senegal, from 12 to 15 May 2009. The meeting was attended by 69 participants and experts from 23 AFI Member States and four (4) organizations (ARMA, ASECNA, IATA, and Roberts FIR).

1.2 The eleventh meeting of the Sub-Group (ATS/AIS/SAR SG/11) was held at the United Nations compound at Gigiri, Nairobi, Kenya from 26-30 April 2010. The meeting was attended by a total of 80 participants and experts from 26 States and six (6) organisations (ARMA, ASECNA, IATA, IFALPA, IFATCA and Roberts FIR). The meeting was held on the same dates and venue with the third meeting of the Communications, Navigation and Surveillance (CNS/3), and the two Sub-Groups had one joint session for coordination and discussion of common issues.

1.3 Copies of the reports of both meetings were transmitted to members of the Sub-Group as well as to AFI provider user States. Comprehensive documentation of the meeting may be found on the ICAO website: <http://www.icao.int/> under the APIRG web page. The Sub-Group recorded its action in the form of Draft Conclusions and Draft Decisions.

1.4 Apart from endorsement of the report, 45 Draft Conclusions and Decisions which are provided on the follow-up action form of the Sub-Group at **Appendix A** to this working paper are presented for consideration by the Group.

2. Discussion

FOLLOW-UP ON SP AFI RAN RECOMMENDATIONS, CONCLUSIONS AND DECISIONS WITHIN THE FRAMEWORK OF APIRG RELEVANT TO THE ATS/AIS/SAR SG

2.1 The Sub-Group reviewed progress on the implementation of the Recommendations of the Special AFI/8 RAN Meeting, and Conclusions and Decisions formulated within the framework of APIRG relevant to its terms of reference, for follow-up and update as necessary, including the enhancement of the mechanism for follow-up of actions required to implement the Recommendations, Conclusions and Decisions. The APIRG follow-up form which captures information on action taken/to be taken, responsible parties, expected outcome and target dates was adopted with a modification to specifically reflect the status of implementation.

2.2 The ATS/AIS/SAR SG/11 reviewed developments related to the Recommendations of the SP AFI/8 RAN and Conclusions of APIRG 16 that are relevant to its terms of reference and accordingly updated action taken/planned on the Recommendations. Similarly, the Sub-Group reviewed updated Conclusions/Decisions of APIRG 16. The SP AFI/8 RAN Recommendations as well as Conclusions of APIRG 16 together with updated action and status thereon are at **Appendix B** and **Appendix C** respectively to this working paper.

2.3 In order to improve efficiency and facilitate follow up, in reviewing Draft Conclusions and Decisions formulated within the Sub-Group and subsidiary bodies reporting to it, the Sub-Group considered the need where appropriate, to merge Conclusions or Decisions with others that are considered similar or closely related. Furthermore, to identify as redundant those that are adequately addressed by other Conclusions, Decisions, procedures, or activities; and similarly, identified those that could be included in the terms of reference and work programmes of relevant APIRG subsidiary bodies or be included in the APIRG handbook to serve general purposes.

In this context, Draft Conclusions/Decisions of the ATS/AIS/SAR SG/10 meeting were reviewed and reformulated as Draft Conclusions/Decisions of the eleventh meeting of the Sub-Group. Draft Conclusions/Decisions that originated from or were significantly re-formulated by the ATS/AIS/SAR SG/11 are reflected with the relevant subject matter in the body of this working paper. Collectively, all Draft Conclusions and Decisions of the Sub-Group since APIRG 16 are listed in Appendix D to this working paper.

REGIONAL PERFORMANCE OBJECTIVES

2.4 The ATS/AIS/SAR SG/11 meeting recalled that the SP AFI/8 RAN 2008 formulated and referred to APIRG a series of performance framework forms (PFFs) establishing performance objectives for the AFI Region with relevant timeframes for

achievement, to be updated and effectively applied in the Region. Accordingly, the ATS/AIS/SAR SG/11 reviewed and updated the PFFs from the SP AFI/8 RAN Meeting, and formulated the following Draft Conclusion:

DRAFT DECISION 11/26: ATM PERFORMANCE FRAMEWORK

That, the AFI Performance Framework Forms formulated by the Special AFI/8 RAN Meeting regarding performance objectives in the fields of ATM, AIS/MAP and SAR are updated as at Appendixes 3A to 3F to the report on Agenda Item 3.

- Appendix 3A Implementation of the new ICAO Flight Plan Provisions*
- Appendix 3B Optimization of the ATS route Structure in en-route airspace*
- Appendix 3C Optimization of the ATS route Structure in terminal airspace*
- Appendix 3D Optimization of vertically guided RNP approaches*
- Appendix 3E Search and Rescue*
- Appendix 3F Implementation of WGS-84 and Electronic Terrain & Obstacle Data*

1.1 The Performance Framework Forms relating to ATM and SAR are provided at **Appendix E** to this working paper. Performance objectives related to the fields of AIS and MAP are addressed under APIRG 17 Agenda item 4.6.

ISSUES REQUIRING COORDINATION BETWEEN SUB-GROUPS

2.6 The Sub-Group discussed a number of issues which required coordination between the ATS/AIS/SAR and the CNS Sub-Groups. The issues were subsequently discussed in a joint session of the two Sub-Groups on the fourth day of their respective meetings.

2.7 **Missing flight plans.** – The joint session of the two Sub-Groups was briefed about the problem of missing flight plans which had been highlighted and discussed in the ATS/AIS/SAR SG/11 meeting. It was noted that in a selected period of 27 days in the Johannesburg Air Traffic Control Centre (ACC), there were missing flight plans relating to 161 flights, averaging six (6) missing flight plans per day, or which on average, meant 2190 flight plans were not being received in the system annually.

2.8 The joint session of the Sub-Groups recalled with concern that the missing flight plans matter had become a perennial safety and efficiency issue for which solutions should be identified and put into effect as soon as practical. It was however, noted also that despite previous efforts by both Sub-Groups, the causes for missing flight plans had still not been fully determined. Further concern was that if the current rate of missing flight plans was not effectively addressed, the situation could be expected to result in more serious implications when the new ICAO model flight plan is implemented in November 2012.

2.9 In view of the above, the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 11/27: RESOLUTION OF MISSING FLIGHT PLANS PROBLEM

That, in order to effectively address the problem of missing flight plans between AFI ACCs, AFI States:

- a) take immediate measures to ensure that standard requirements for flight plan processing are adhered to;*
- b) ensure that all FIRs collect/record information on missing flight plans and exchange such information/data with other FIRs;*

- c) *ensure that ACCs/FICs respond to queries from other ACCs/FICs regarding missing flight plans on a timely basis, providing details that might assist not just the affected FIRs but others in resolving the causes for missing flight plans; and*
- d) *bring the trend information/data on missing flight plans to the attention of the TAG for further action*

2.10 **Coordination of Traffic between FIRs** – The joint session of the Sub-Groups was informed of an increase in operational anomalies because of institutional issues, transfer and coordination of traffic between control organizations in particularly between Algeria and Tunisia. The meeting emphasized on the fundamental necessity of having the letters of agreement/procedure between Algeria and Tunisia, as well as any other ATS supporting facilities, up to date.

2.11 **Required Communication Performance (RCP) concept** – The Sub-Groups were informed about the ongoing work on the development of the Required Communication Performance (RCP) concept. A proposal was made for the AFI Region to embrace the concept, noting the various challenges facing the AFI Region, including the lack of direct communication and surveillance in remote continental and oceanic airspace which has led to the use of data link applications to support separation assurance and conformance monitoring. The Sub-Groups agreed to follow up on the concept as it was being developed.

RVSM OPERATIONS AND MONITORING

2.12 **RVSM Implementation Safety Seminar (RISS) (SIP)** – The ATS/AIS/SAR SG/11 noted the outcome of the RVSM Implementation Safety Seminar (Special Implementation Project (SIP)) which was successfully convened at Hotel SixEighty in Nairobi, Kenya 19-22 April 2010. The meeting was apprised on the proceeding of the Seminar and noted the issues raised by the Seminar which were to be taken into consideration for action by various parties including the ATS/AIS/SAR Sub-Group. Further details regarding outcome of the Seminar are at **Appendix F** to this working paper.

2.13 **ARMA Report** –The ATS/AIS/SAR SG/11 considered several aspects regarding the work undertaken by the AFI Regional Monitoring Agency (ARMA). ARMA presented an overview of activities since the tenth meeting of the Sub-Group in May 2009. In particular, the following issues were noted:

- The work of the ARMA was hamstrung by lack of data from States, and efforts to improve the flow of data are realizing limited improvement;
- The requirement of RVSM approvals by States continues to be a challenge. Some States still allow aircraft in the RVSM strata without appropriate approvals; and
- In order to ensure that altimetry systems meet the required specifications, height monitoring needs to be undertaken by all operators; this is currently not the case.

The Sub-Group meeting noted with concern that the above issues not only hamper the work of the ARMA but have direct safety implications. Urgent attention by States, air navigation services providers and aircraft operators was emphasized.

2.14 **Post Operational Safety Case (POSC)** – The Sub-Group recalled that the strategy to demonstrate the achievement of the Safety Policy has been supported by three principle safety arguments, and noted that these were followed in the process of the POSC:

- That RVSM in AFI is safe in principle after operational experience is measured against the safety requirements in the PISC;
- That the AFI RVSM application is safe by applying and realizing the safety requirements based on the availability of safety data over time period 25 September 2008 to 30 September 2009;
- That the issues that were identified in the PISC, and the assumptions made therein, have been satisfactorily addressed.

2.5 The overall conclusion was that due to the elevated overall risk element, RVSM operations were not meeting the required quantitative safety levels and remedial actions need to be implemented by concerned parties to address the concerns. The POSC culminated in twenty three safety recommendations which were to be presented to States through a State Letter, for consideration and implementation as applicable.

2.16 In summary, the outcome of the POSC was indicative of a number of issues that required to be addressed as matter of urgency; these include:

- the need for States (ANSPs) to support the ARMA with regard to provision of data, and several other items identified in the terms of reference of the RVSM National Programme Manager;
- reporting of incidents by all parties (States/ANSPs, airspace users, etc.);
- strict RVSM approval processes and oversight; and
- consideration of the outcome of the RISS which was held in Nairobi, 19-22 April 2010.

2.17 **Pilot Guidance Material** – The Sub-Group reviewed and endorsed pilot training guidance material that was updated by IFALPA from material developed by the same prior to RVSM implementation in September 2008.

2.18 **Collision Risk Assessment (CRA)** – The Sub-Group considered the outcome of the Fourth AFI CRA, which was the first full Assessment after the implementation of RVSM in the AFI Region and covered the time period from the 25 September 2008 until the end of September 2009. The CRA forms part of and contributes to the POSC. The meeting noted that the estimated Collision Risk was calculated to have been above the Overall TLS by a factor of six (6). The main contributing factor to the Overall Risk was identified to be aircraft operating at the incorrect flight levels.

2.19 The Sub-Group noted with concern that data required by the ARMA was received from only a limited number of FIRs, and that the assessment was made difficult to compile due to the absence of data from various other FIRs. Moreover, the quality of the available information varied significantly. It was evident from the information provided to the Sub-Group that vertical incidents have increased since the implementation of RVSM, and that this could largely be attributed to aircraft operating at the wrong flight levels. This aspect appears to be coupled with lapses in the provision of ATM. A concerted effort from air traffic services providers will be necessary to rectify this situation. Once again the continuing challenge of aircraft operating in the AFI RVSM airspace without appropriate State RVSM Operational Approval was noted.

2.20 **Long Term Height Monitoring** – It was recalled that the AFI RMA is a Regional entity performing functions on behalf the AFI Region in accordance with the ICAO AFIRMA Manual, ICAO Doc 9574 and other relevant ICAO provisions in order to meet the requirements of Section 3.3 in particular paragraphs 3.3.5.1 through 3.3.5.2 of Annex 11 to the Chicago Convention. Accordingly, the following primary functions are expected to be carried out by the ARMA:

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- Establish and maintain a database of RVSM approvals;
 - Monitor aircraft height-keeping performance and the occurrence of large height deviations and report results as appropriate;
 - Conduct Safety Assessments and report results as appropriate;
 - Monitor operator compliance with State approval requirements; and
 - Initiate necessary remedial actions if RVSM requirements are not met.

2.21 The Sub-Group noted the new provisions (Standards) relating to Section 7.2 of Annex 6 to the Chicago Convention (Ref: Amendment 34 to Annex 6) concerning long-term monitoring requirements to ensure the safety of operations in RVSM airspace, which will become applicable on 18 November 2010. Amongst others, the new provisions require that:

- *An aeroplane shall demonstrate a vertical navigation performance in accordance with Appendix 4 to Annex 6 Part 1; and*
- *The State of the Operator that has issued an RVSM approval to an operator shall establish a requirement which ensures that a minimum of two aeroplanes of each aircraft type grouping of the operator have their height-keeping performance monitored, at least once every two years or within intervals of 1 000 flight hours per aeroplane, whichever period is longer. If an operator aircraft type grouping consists of a single aeroplane, monitoring of that aeroplane shall be accomplished within the specified period.*

2.22 **RVSM National Programme Managers (NPM)** – It was noted that in some States availability of RVSM National Programme Managers (NPM) or updated information regarding their contact details was no longer receiving the priority it deserves, thus exacerbating challenges faced by the ARMA as discussed above. State Letters urging action from States in this regard have had limited success. It was agreed that the Regional Offices should issue a new State Letter urging States to do the necessary on this matter.

2.23 **AFI FIRs not providing data to ARMA**—The Sub-Group discussed the issue of FIRs in the AFI Region that were not providing necessary RVSM related data to the ARMA. It was noted that when the AFI Region commenced collection of the data, some FIR/s were already providing the data to other Regions’ RVSM monitoring bodies. It was highlighted however, that non-availability of such data distorted the AFI Regional RVSM safety analysis and could defeat the purpose of regional monitoring. It was agreed that ICAO would initiate coordination as necessary to facilitate the forwarding of information to the ARMA.

2.24 **Strategic Lateral Offset Procedures (SLOP)** – In order to enhance safety, particularly in the RVSM environment, the ATS/AIS/SAR SG/11 completed the work that had been started by the tenth meeting of the Sub-Group regarding the application of SLOP in the AFI Region. The Sub-Group noted that the provisions of PANS-ATM Doc 4444 regarding SLOP application were adequately clear. The Sub-Group identified areas in the AFI Region for application of SLOP and accordingly formulated the following Draft Conclusion:

DRAFT CONCLUSION 11/28: IMPLEMENTATION OF STRATEGIC LATERAL OFFSETS IN THE AFI REGION

That States shall implement SLOP within their areas of responsibility, by AIRAC effective date 30th November 2010, in line with provisions in PANS-ATM Doc 4444 Chapter 16 and the following guidance:

- a) *SLOP will be applied in those Oceanic FIRs where fixed routes are established excluding defined random routing areas.*
- b) *SLOP will be applied in all areas of the Continental AFI Region except in those areas where ATC separation is provided by surveillance, unless approved by the State.*

Note 1: Pilots may contact other aircraft on the inter-pilot frequency 123.45 MHz to coordinate offset.

2: Pilots are to note that frequency 126.90 MHz is mostly used in the AFI Region.

PERFORMANCE BASED NAVIGATION (PBN) AND AFI ATS ROUTE NETWORK

2.25 The ATS/AIS/SAR SG/11 reviewed developments and progress in the implementation of PBN since APIRG 16 meeting 19-23 November 2007, including outcome of the Joint PBN & GNSS/I TFs that was held in September 2009. It was noted that due to low participation, the second Joint PBN & GNSS/I TFs which was to be convened in March 2010 had to be postponed. As such, there was unfinished business which includes the revised Regional PBN Implementation Plan which was to be merged with the GNSS Implementation Strategy.

2.26 **Regional PBN Implementation Plan:** The meeting deliberated on aspects of the Plan including in particular, issues related to approaches and the AFI GNSS Implementation Strategy which is to be integrated into the Regional PBN Implementation Plan.

2.27 More specifically, there were debates on aspects of the Plan such as the application of the terminology “approach with vertical guidance (APV) procedures” emanating from the Joint Meeting of the PBN and GNSS/I Task Forces in September 2009, as well as supporting infrastructure including onboard technology . It was noted that the term was used in the context of its definition in the PBN Manual (Doc 9613), that is to indicate an instrument procedure which utilizes lateral and vertical guidance but which does not meet the requirements established for precision approach and landing operations. It was noted that in developing the Regional Roadmap for implementation of PBN, the PBN TF/2 meeting Nairobi 4-6 December 2008 had, in some parts of the Roadmap indicated that APV should be achieved through Baro-VNAV and SBAS, while in some parts of the Roadmap, only Baro-VNAV was identified to support APV.

2.28 As it appeared that there were still divergent unresolved views on the matter, the Sub-Group recognized that such technical details could only be appropriately addressed by the PBN TF. However, it was acknowledged that elements that still required further deliberations should not in the short term hinder implementation of the plan. In this regard, the Sub-Group agreed that, except for editorial changes and modifications by the Joint PBN and GNSS TFs meeting in September 2009, which transformed the Roadmap to a Plan in accordance with Assembly Resolution A36-23, the AFI Regional PBN Implementation Plan should, with regard to the issue of APV, retain the sensors specified by the PBN TF/2, and submitted as such to APIRG 17.

2.29 Based on the above, the ATS/AIS/SAR SG/11 meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 11/29: AFI PBN IMPLEMENTATION REGIONAL PLAN

That,

- a) *The AFI Regional PBN Implementation Plan is updated and endorsed as at **Appendix G** to this working paper, to more accurately reflect PBN implementation goals in Assembly Resolution A36-23, guidance in the PBN Manual (9613), and Regional planning guidance provided by APIRG; and*
- b) *the Regional PBN Implementation plan be included in the AFI Doc 003.*

2.30 In order to support States' efforts to develop their National PBN Implementation Plans in accordance with APIRG 16 Conclusion 16/3: *Development of States PBN Implementation Plans*, and to progress with implementation, the Sub-Group endorsed the following Draft Conclusions, providing a template for national plans and tools that may be used:

DRAFT CONCLUSION 11/30: NATIONAL PBN IMPLEMENTATION PLAN

That States,

- a) *use the Regional PBN implementation plan template at **Appendix H** to this working paper, for the development of a national PBN implementation plan and consider the action planning provided by the Joint PBN/GNSS/I Task Forces meeting to support planning;*
- b) *provide feedback to the ESAF and WACAF Regional Offices by 30 October 2009 regarding progress in the development of their national plans, indicating any challenges, if any, that are delaying the development of the plan, as well as measures taken or to be taken to overcome such challenges; and*
- c) *complete their National PBN Plans as soon as possible, but not later than 31 December 2009,*

DRAFT CONCLUSION 11/31: PBN IMPLEMENTATION TOOLS

That States,

- a) *are encouraged to use project management plans and implementation action plans such as provided at **Appendix I-1 to I-6** to this working paper, as well as project management softwares (such as Microsoft Project or freely available applications) , to support PBN implementation activities; and*
- b) *carry out a gap analysis using the project plan template attached to the report, or similar approach, in order to more accurately develop their PBN implementation plans.*

2.31 **PBN/GNSS Task Force:** Taking into consideration the objectives assigned to PBN Task Force and noting the critical role of GNSS in the implementation of PBN navigation specifications, the Sub-Group was of the view that the PBN Task Force and GNSS Implementation Task Force should merged. The Sub-Group also noted that the merger had been discussed by the two Task Forces. In this regard, the Sub-Group agreed on the establishment of the AFI PBN/GNSS Task Force and the following Draft Decision:

DRAFT DECISION 11/19: DISSOLUTION OF THE GNSS IMPLEMENTATION AND PBN TASK FORCES AND ESTABLISHMENT OF THE PBN/GNSS TASK FORCE.

That the GNSS Implementation and PBN Task Forces are dissolved and the PBN/GNSS Task Force is established with the terms of reference in Appendix 6G to the report on agenda item 6 (Appendix XX to this working paper).

2.32 **ATS Routes Implementation and Development** – The Sub-Group noted that users (IATA) had prepared an updated user priority list of ATS routes to be implemented, which consolidated all previous priority lists. It was noted that a number of ATS routes had been in the Air Navigation Plan for some time and that the implementation of such routes was imperative to efficiency of the airspace and contribution to environmental protection.

2.33 The Sub-Group endorsed the establishment of the PBN Route Network Development Working Group (PRND WG) as proposed by the Joint PBN & GNSS/I TFs in September 2009, and agreed to refer the development of ATS routes to the Working Group, and accordingly the following Draft Decision.

DRAFT DECISION 11/32: PBN ROUTE NETWORK DEVELOPMENT WORKING GROUP (PRND WG)

That the AFI PBN Route Network Development Working Group (PRND WG) is established with the terms of reference, composition and working arrangements as at Appendix J to this working paper. A list of Priority Air Routes proposed by users (IATA) for implementation has been appended in Appendix K to this working paper.

2.34 It was recognized that work assigned to the PRND WG had accumulated since the Working Group was established in September 2009. Furthermore, that coordination in the comprehensive definition of the user requirements and the work of the PRND WG would significantly support implementation. In this regard, the meeting accepted with appreciation IATA's offer to host an ATS route development coordination and development meeting at the earliest possible date, in order to facilitate expeditious Regional ATS route development and implementation, in particular ATS routes identified in the priority list.

2.35 Pursuant to the above, the ATS Routes Development Coordination and First Meeting of the Performance Based Navigation Route Network Development Working Group (PRND WG/1) was scheduled to be convened in Johannesburg, South Africa, 13 - 16 July 2010. The meeting will accordingly update the list submitted by IATA to ATS/AIS/SAR SG/11.

2.36 **AFI Flight Procedures Office/Programme (FPO/FPP):** Concern was raised regarding delays in establishing the AFI Flight Procedures Office (FPO) as envisaged by the Special AFI/8 RAN Meeting 2008 under Recommendation 6/10. Establishment of the AFI FPP was viewed as critical, considering Assembly Resolution 36-23 related to PBN implementation global goals and the limited resources of many States in the AFI Region. The Sub-Group was informed that ASECNA was ready to host the AFI FPP.

2.37 Information was provided in this regard, that as the concept of an FPP was new, it had been considered essential not to start with several Regional FPPs at the same time, but to use the experience of establishing one to inform establishment of others, in order to reduce risks of the FPPs not meeting objectives. In the same vein, ICAO had assigned the Implementation and Resource Development Coordinator for the ICAO PBN Programme at

ICAO HQ to provide close guidance to the establishment of the first FPP in the APAC Region, including on-site elements thereof, to ensure that principles that form the tenets of the FPP are adequately met.

2.38 It was however expected that, based on valuable experience gained in the establishment of the FPP in the APAC Region, the letter to invite interested States for proposals to host the FPP would be disseminated by the end of June 2010.

2.39 Based on the above, the Sub-Group formulated the following Draft Conclusion:

DRAFT CONCLUSION 11/33: DISSEMINATION OF A LETTER INVITING PROPOSALS FOR ESTABLISHMENT OF THE AFI FLIGHT PROCEDURES PROGRAMME (FPP)

That, pursuant to Special AFI/8 RAN Meeting Recommendation 6/10, ICAO disseminate, as a matter of urgency, the letter inviting interested States and international organizations to submit proposals for establishment and hosting of the AFI FPP.

2.40 It was also noted, that notwithstanding the above, the establishment of the FPP is to support the sustainable implementation of PBN by States. However, States are expected to proceed with implementation of PBN using available resources and expertise, without waiting for the establishment and operation of the FPP. The Sub-Group also recognized that ICAO had scheduled a PBN Procedure design course that is to be held in Dakar, Senegal 19-30 July 2010 and in collaboration with other parties, arranged a PBN Airspace Planning Workshop to be convened 6-9 September 2010 in Johannesburg, South Africa.

2.41 **Safety assessments and monitoring:** The Sub-Group debated on the need for clear orientation on how to perform a safety assessment for PBN implementation. The Secretariat explained that guidance is provided in different ICAO documentation to perform a qualitative or quantitative assessment. Among the documents are *Doc 9689- Manual on Airspace Planning Methodology for the Determination of Separation Minima*, *Doc 9859-SMS Manual* and *Circ 319- A Unified Framework for Collision Risk Modelling in Support of the Manual on Airspace Planning Methodology the Determination of Separation Minima (Doc 9689)*. It was also highlighted that to achieve sound results, the safety assessments, depending on the method chosen would require a multidisciplinary group involving mathematicians and statisticians besides ATM experts.

2.42 The ATS/AIS/SAR SG/11 also had a comprehensive discussion on the matter of Regional PBN system safety monitoring and recognized that any safety monitoring, including PBN system safety monitoring, remains the responsibility of each State. Furthermore, it was acknowledged that the need for Regional system safety monitoring could not be clearly identified and justified and could overlap with the system safety management already being put in place by the States, with no additional benefits. As such, the concept of Regional system safety monitoring was considered not necessary or viable. In order to optimize benefits from available data however, the meeting agreed that information available at the ARMA regarding lateral deviations could be forwarded to States for their use in State safety monitoring processes, bearing in mind available ICAO guidance material such as that indicated above.

2.43 **National PBN Programme Managers (NPPM):** The Sub-Group noted that, based on communication exchanged between the Regional Offices and States regarding PBN implementation, in many States the appointment and functioning of NPPM has not taken effect, or done so in a limited form. It was noted that previous communication to States on the matter may have not provided adequate clarity.

2.44 Based on the above, the Sub-Group formulated the following Draft Conclusion:

DRAFT CONCLUSION 11/34: NATIONAL PBN PROGRAMME MANAGERS (NPPM)

That, in order to facilitate the implementation of PBN and Regional coordination:

- a) *AFI States that have not already done so nominate/designate NPPMs as soon as possible with the terms of reference as at **Appendix L** to this working paper and provide ICAO with contact details of the NPPMs; and*
- b) *States update the NPPMs contact information provided to ICAO whenever changes have been made.*

2.45 **Aircraft equipage data:** The Sub-Group noted the concerns of the Joint PBN & GNSS/I TFs September 2009, regarding the need for accurate data on aircraft equipage for planning and implementation purposes. It was noted that IATA had obtained valuable statistical information on aircraft equipage and that the data could be used to estimate equipage in non-IATA airline fleets. However, the effort to obtain data relating to general aviation fleets through letters that had been circulated to States had met very limited success. It was further noted that some air navigation service providers (ANSPs) were making efforts to obtain the data from operators, but that this was meeting resistance from operators. In this regard, the meeting requested that the matter of collection of aircraft equipage information be further clarified to the civil aviation authorities who should also be urged to support efforts to collect the data. Accordingly the ATS/AIS/SAR SG/11 formulated the following Draft Conclusion:

DRAFT CONCLUSION 11/35: AIRSPACE PLANNING AND AIRCRAFT EQUIPMENT SURVEY

That, in order to facilitate airspace planning and decisions related to air navigation infrastructure,

- a) *AFI States and Air Navigation Service Providers (ANSPs) are urged to support the ICAO/IATA Global Survey on aircraft equipment aimed at developing a database with accurate information on present and future avionics capabilities of airline fleets;*
- b) *AFI States are urged to make efforts to bring awareness to the aircraft operators regarding the ICAO efforts on aircraft equipage data, and that joint efforts between civil aviation authorities and ANSPs be embarked upon to bring quicker results; and*
- c) *ensure that initiatives for air navigation system enhancements are matched with fleets capabilities and readiness.*

Note: *In order to capture the necessary data, ANSPs are advised to take advantage of the flight plan data (Field 10) on aircraft equipment.*

2.46 The ATS/AIS/SAR SG/11 noted that the status of development of National PBN Implementation Plans, which were to be completed by 2009 pursuant to Assembly Resolution A36-23, is not known; the primary reason being lack of response from most States. It was also noted however, that the Secretariat will continue with its efforts to obtain the information.

2.47 The Sub-Group endorsed a proposal for amendment of Doc 7030 (Regional Supplementary Procedures) in order to update the document regarding current situation in the AFI Region, in particular the requirement relating to RNAV capability with AORRA and IORRA, along with amendments to text which may not be relevant to operations within the AFI Region or EUR/SAM corridor areas of responsibility.

SAFETY MANAGEMENT IN AIM

2.48 **Tactical Action Group (TAG) activities** – The Sub-Group noted the outcome of the second meeting of the APIRG Tactical Action Group (TAG/2) that was held on 23-24 April 2010 in Nairobi, Kenya. It was noted in particular that there were notable trends arising from analysis of Unsatisfactory Condition Report (UCRs) that have come into the TAG database over the past year (since July 2009). Amongst others, the TAG/2 meeting had noted that one State that initially had a considerably high number of UCRs had resolved most of them. However, three States remained with high and increasing numbers of UCRs that include AIRPROXs. Responses to the TAG from these States were also very low.

2.49 It was noted with concern that some of the States to which TAG missions were deemed necessary, had postponed receiving the missions several times. It was also noted that the level of reporting of ATS incidents by States or their air navigation service providers (ANSPs) was significantly slow. Of the 53 AFI States, no more than three to five States were reporting incidents. Many airlines were also not reporting incidents.

2.50 Detailed discussion concerning the TAG and its activities are covered in a separate working paper (WP/37).

2.51 **ATS Incident Analysis Group (AIAG)** – The meeting was also briefed on the outcome of the ATS Incident Analysis Group (AIAG) meeting held in Johannesburg, South Africa, on 8-9 March 2010. It was recalled that the AIAG was established to provide a forum for various aviation organisations and stakeholders, including States, International Organizations Regional and sub-Regional Organizations, to review reported incidents in the AFI region and formulate recommendations to prevent similar occurrences in the future.

2.52 The Sub-Group noted that 142 incidents including 66 AIRPROXs were reported in 2009, and that concerned air navigation service providers (ANSPs) had provided feedback on 122 of the incidents. Although the average rate of feedback was 88%, the response rate varied significantly from one State to another. It was noted that in a number instances, which were increasing compared to 2008, lack of ATC anticipation/ATC situational awareness/ATC proficiency, was either the main cause of incident or a contributing factor. In order to prevent similar occurrences, the AIAG made a number of recommendations which are reflected at **Appendix M** to this working paper.

2.53 **Incident reporting form:** It was recalled that many civil aviation authorities have adopted the ICAO model reporting form in the PANS ATM Doc 4444 Appendix 4, and have made it available to potential users particularly ATS personnel and air crew, through such mechanisms as the Aeronautical Information Publication (AIP). However, it was noted that from experience, most reports are not being submitted through this form.

2.54 In order to improve on the use of the form, it was agreed that there was a need to have a modified version of the form, arranged to make it more user-friendly as well as an electronic format of the form. The meeting noted the effort under way in the Regional Offices to explore more user friendly format of the form, and IATA (SAA) offered to participate in the development of the form.

2.55 **Safety Management SARPs** – The ATS/AIS/SAR SG/11 and the CNS/SG3 discussed safety management provisions (SARPs and guidance material) in a joint session on the fourth day of the meeting. It was noted that ICAO provisions for Safety Management Programmes in ATS first became applicable in November 2005, in accordance with Amendment 43 to Annex 11.

2.56 It was recalled that the APIRG 15 meeting in Nairobi, Kenya, 26 – 30 September 2005 formulated Conclusion 15/32: *ATS Safety Management*, urging States that had not done so to implement a systematic and appropriate ATS Safety Management Programme to ensure that safety is maintained in the provision of ATS. The Sub-Groups also recalled that 36th Assembly Session of the Assembly adopted a number of Resolutions related to this subject, among them:

- Resolution A36-7: *ICAO Global Planning for Safety and Efficiency -- Appendix A: Global Aviation Safety Plan and Appendix W: The Provision of Air Traffic Services.*
- Resolution A36-7 also addresses the concept of “just culture.”
- Resolution A36-8: *Non-disclosure of certain accident and incident records*
- Resolution A36-9: *Protecting information from safety data collection and processing systems in order to improve aviation safety*
- Resolution A36-10: *Improving accident prevention in civil aviation*

2.57 It was noted that in an ongoing endeavour to improve safety management, on 2 March 2009, the 186th Session of the ICAO Council adopted Amendment 47 to Annex 11, which arose from, inter alia, a continuing effort towards harmonization of safety management provisions. Provisions of Amendment 47 that relate to safety management, identified in the Annex as Amendment 47B, are applicable as of 18 November 2010. Accordingly, States that will not have complied with these provisions on the date that they become applicable are obliged under Article 38 of the Chicago Convention to file a notification of difference.

2.58 More particularly, the meeting was made aware of the note under paragraph 2.27.4 of Annex 11, which is reflected hereunder, relating to requirement under the SSP to establish and SMS (2.27.3); and requirements relating to lines of safety accountability, including a direct accountability for safety on the part of senior management (2.27.4):

...The provision of AIS, CNS, MET and/or SAR services, when under the authority of an ATS provider, are subject to the requirements of 2.27.3 and 2.27.4. When the provision of AIS, CNS, MET and/or SAR services are wholly or partially provided by an entity other than an ATS provider, the requirements under 2.27.3 and 2.27.4 relate to the services that come under the authority of the ATS provider, or those aspects of the services with direct operational implications.

2.59 The Sub-Groups were apprised on the efforts taken by ICAO with regard to training in safety management through various programmes including that introduced by the Secretary General of ICAO under State Letter Ref.: AN 1146-06152 dated 30 June 2006, and the AFI Comprehensive Implementation Programme (ACIP).

2.60 The Sub-Groups acknowledged that detailed information regarding the status of implementation of safety management provisions in the AFI Region was necessary to facilitate the work of the Sub-Groups in fostering implementation. However, the meeting noted that the Status of implementation was not clearly known, particularly in light of the new provisions applicable in November 2010.

2.61 Based on the above, the meeting formulated the following Draft Conclusions:

DRAFT CONCLUSION 11/36: IMPLEMENTATION OF SAFETY MANAGEMENT IN THE AFI REGION

That, AFI States are urged to take necessary measures including the development and promulgation of legislative/regularity provisions in order to:

- a) implement the Safety Management provision of Annex 11;*
- b) prioritise giving effect to Assembly Resolutions A36-8, A36-9 and A36-10 regarding collection and protection of safety information, and improving accident prevention*
- c) take full advantage of the training opportunities availed by ICAO under the ACIP and other programmes*
- d) make use of guidance material provided by ICAO including, the Safety Management Manual (SMM) (Doc 9859) taking into consideration ICAO improvements on such guidance material from time to time;*

DRAFT CONCLUSION 11/37: STATUS OF IMPLEMENTATION OF SAFETY MANAGEMENT PROVISIONS IN THE AFI REGION

That, in order to establish the status of implementation of Annex 11 Safety Management provisions in the AFI Region, and in order to facilitate Regional planning and implementation strategies:

- a) the Regional Offices circulate a questionnaire aimed at collecting detailed information on the status of implementation in the AFI Region; and*
- b) States are urged to cooperate with the efforts of the Regional Offices and to respond to the questionnaires with minimum delay.*

CONTINGENCY PLANS

2.62 The Sub-Group recalled ICAO provisions in Chapter 2 of Annex 11 to the Chicago Convention, and noted that as the contingency plans in most cases constitute a deviation from the facilities and services provided by States in accordance with Article 28 of the Convention on International Civil Aviation (Doc 7300) and as reflected in the Regional ANP. Consequently, as Regional ANPs are approved by the Council, contingency plans also require Council approval. The Subgroup was reminded of Recommendation 5/2 of AFI/7 RAN Meeting 1997, which urged States to develop contingency plans for their area of responsibility

2.63 Reference was also made to Assembly Resolution A36-13 Appendix M: *Delimitation of air traffic services airspaces*, whereby States providing air traffic services over the high seas are encouraged to enter, as far as is practicable, into agreements with appropriate States providing air traffic services in adjacent airspaces, so that, in the event the required air traffic services over the high seas cannot be provided, contingency plans, which may require temporary modifications of ATS airspace limits, will be available to be put into effect with the approval of the ICAO Council.

2.64 The Sub-Group noted that the Secretariat had received updated contingencies plans from some States. However, most States in the AFI Region have either not developed, not updated or not informed the Regional Offices about their contingencies plans pursuant to ICAO provisions.

2.65 The Sub-Group also recognized the benefit of standardization of the layout of contingency plans, as well as the need to facilitate the process of their approval, noting that there could be changes in routes, events, ATS and related capabilities, etc., which may necessitate review and updating of the plans prior to final approval as the need for their activation becomes imminent.

2.66 In view of the above, the need to support States to address deficiencies related to contingency planning was recognized. It was also acknowledged that in order to enhance the effectiveness of contingency planning, coordination and implementation, experience has pointed to the benefit of using a common template. Accordingly, the ATS/AIS/SAR SG/11 endorsed the contingency plan development template at **Appendix N** to this working paper. The objective of the template is, amongst others:

- to take advantage of the experiences in using it elsewhere and facilitate inter-FIR coordination,
- to reduce diversity in the development of the various States' plans, in particular the layout thereof, where such diversity is not necessitated by specific intricacies of the Region and/or of individual States, thereby enhancing their presentation and utility to users and stakeholder; and
- to enable the expeditious review, update and presentation of the contingency plan to the President of the Council for approval when the need for its activation becomes necessary.

2.67 The Sub-Group also endorsed the contingency plan model based on the endorsed template, which provided exemplary material on the development of the template. It was emphasized that the template and the model are not intended to replace the need for collaborative processes and the involvement of all relevant stakeholders in the development of contingency plans, as indicated in Annex 11.

2.68 Concern was raised regarding delays experienced by some States, of responses from Regional Offices on communication from the States in the process of developing contingency plans as indicated in Section 2.30 of Annex 11 to the Convention. It was highlighted that the delays discourage efforts by States to comply with ICAO provisions, as opposed to assistance being available from the Regional Offices as indicated in Annex 11.

2.69 Based on the above and in order to further assist AFI States in developing their contingency plans, the Sub-Group formulated the following Draft Conclusion:

DRAFT CONCLUSION 11/38: DEVELOPMENT AND PROMULGATION OF CONTINGENCY PLANS

That,

- a) *AFI States are urged to develop/update and promulgate contingency plans in accordance with Annex 11 and Annex 15 provisions;*
- b) *AFI States use available ICAO guidance material for the development and promulgation of contingency plans including the template at **Appendix N** to this working paper); and*
- c) *ICAO Regional Offices carry out a survey on the status of development of contingency plans in the AFI Region in order to inform the ATS/AIS/SAR Sub-Group for necessary action.*

- d) *ICAO Regional Offices expedite responses to States on matters related to development of contingency plans, as well processes for approval of contingency plans submitted by States.*

SEARCH AND RESCUE (SAR)

2.70 The meeting recalled provisions relating to States' obligations with regard to SAR, particularly Article 25 of the Convention on International Civil Aviation, and Annex 12 thereto. It was further recalled that in support of the provisions of Annex 12, the basic principles, operational requirements and planning criteria regarding search and rescue services are also indicated in the Basic Air Navigation Plan (ANP) (Doc 7474).

2.71 It was recalled also that some of the provisions in the ANP are the outcome of Regional Air Navigation (RAN) and APIRG meetings. In this regard, the following RAN Recommendations and APIRG Conclusions were recalled:

- AFI 7 meeting recommendations:
 - Recommendation 6/1 – Carriage of 406 MHZ ELTs
 - Recommendation 6/2 – Satellite-aided search and rescue
 - Recommendation 6/3 – Cooperation between States
 - Recommendation 6/4 – Coordination with maritime SAR authorities
 - Recommendation 6/5 – Training of SAR personnel
 - Recommendation 6/6 – Search and rescue seminars
 - Recommendation 6/7 – Search and rescue exercises
 - Recommendation 6/8 – Search and rescue facilities
- APIRG 15 Conclusions and Decisions:
 - Conclusion 15/97 Search and Recue (SAR)
 - Decision 15/98 SAR Funding
- SP AFI/8 RAN Meeting
 - Recommendation 6/22 – Establishment of sub-regional search and rescue (SAR) arrangements

2.72 The Sub-group acknowledged that the abovementioned AFI/7 provisions relating to SAR continue to have high relevance, and that more effort was necessary to give effect to the APIRG Conclusions and SP AFI/8 RAN Recommendation.

2.73 Furthermore, it was recalled that the ICAO Assembly has adopted Resolution 36-13: *Consolidated statement of continuing ICAO policies and associated practices related specifically to air navigation*, which is reviewed and updated as necessary at every Assembly Session. Appendix N of the Resolution is about *Provision of Search and Rescue Services*, and the resolving clauses of Appendix N address various elements that are pertinent to implementation, delimitation of areas, cooperation with maritime search and rescue services, agreements with other States, delegation of responsibilities and remedies to inadequacies in the provision of efficient SAR services.

2.74 The Sub-Group recalled that the International Cospas-Sarsat System ceased satellite processing of 121.5/243 MHz beacons on 1 February 2009. As such, for continued sole users of the 121.5/243 MHz beacons (who have not installed 406 Mhz beacons), this brings the alert services conditions to the pre-1985 era, when there was no satellite coverage service for the beacons.

2.75 Based on the above, the meeting agreed that more effort should be expended by the Sub-Group in its future meetings, to foster implementation of the SARPs. Furthermore, the meeting agreed to establish a task force pursuant to SP AFI RAN Recommendation 6/22, and accordingly formulated the following Draft Decision and Draft Conclusion:

DRAFT DECISION 11/39: AFI SAR SERVICES INTEGRATION TASK FORCE (ASSI TF)

That, in order to progress the initiatives taken at the Port Elizabeth Consultative Conference of October 2007 on integration of SAR services and similar other initiatives in the AFI Region, the AFI SAR Services Integration Task Force (ASSI TF) is established with the terms of reference at Appendix 9A to the report on agenda item 9.

DRAFT CONCLUSION 11/40: SEARCH AND RESCUE SERVICES

That, with the objective to foster the implementation of SAR services and improvement of SAR systems in the Region, AFI States are:

- a) urged to establish joint aviation/maritime rescue coordination centres (RCCs) in order to optimize usage of resources and coordination;*
- b) encouraged to establish sub-regional task forces to progress the development SAR cooperative arrangements and integration of SAR services; and*
- c) urged to consider entering into agreements with States that have adequate facilities (within or outside the sub-region) to assist in SAR operations.*

CIVIL/MILITARY COORDINATION

2.76 The Sub-Group recalled that there are several documents containing provisions related to the subject of civil/military coordination. These include: the Chicago Convention (Article 3) Annexes 2, 11 and 15, PANS ATM (Doc 4444), Air Traffic Services Planning Manual (Doc 9426), Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations (Doc 9554) and Manual concerning Interception of Civil Aircraft (Doc 9433).

2.77 Note was also made of Assembly Resolution A36-13 Appendix O - *Coordination of civil and military air traffic*, as well as AFI/7 RAN Meeting Recommendation 5/3 – *Civil/Military Coordination* and APIRG 15 Conclusion 15/52: *Civil/Military Coordination*, all urging States to take a number of measures including establishment of appropriate civil/military bodies, informing military authorities about ICAO provisions, and arranging permanent liaison and close coordination between civil ATS units and relevant military units.

2.78 The Sub-Group was apprised on the Global Air Traffic Management Forum on Civil/Military Cooperation, Montreal, October 2009. It was noted that the forum considered a Draft Outline of the ICAO Guidance on Civil/Military Cooperation. One of the objectives in the drafting is that States will be requested to provide ICAO with information on their best practices for civil/military cooperation as well as for the management of airspace use.

2.79 Based on the above, the meeting agreed to more comprehensively address the issues of civil military/coordination and cooperation in the next meeting of the Sub-Group.

TRANSITION TO NEW ICAO FLIGHT PLAN CONTENT

2.80 The ATS/AIS/SAR SG/11 recalled that on 28 May 2008, amendment No. 1 to the Fifteenth Edition of the Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444) was approved, calling for substantial changes to ICAO flight plan to take effect from 15 November 2012. The interim edition of the amendment is available as an attachment to State letter AN 13/2.1-08/50 dated 25 June 2008 on the ICAO-NET (www.icao.int/icaonet).

2.81 It was noted that the new ICAO model flight plan form and related provisions are necessary to allow ATM systems to make optimum use of advanced aircraft capabilities as well as to meet the evolving requirements of automated ATM systems. The new flight plan addresses air navigation functionalities and technologies such as RVSM, PBN, RCP, ADS-B and GNSS, while maintaining a high degree of commonality with the existing flight plan format. It should be noted that the amendment to the flight plan is an interim step towards a completely revamped system of interaction between aircraft and the ATM system, wherein the aircraft will be an integral part of the ATM system as envisaged in the Global ATM Operational Concept.

2.82 The Sub-Group was informed on the preparations for implementation of the new provisions related to flight plan established by Amendment 1 to the 15th edition of PANS-ATM (Doc 4444). It was also recalled in this regard that the Special AFI/8 Regional Air Navigation Meeting (SP AFI/8 RAN) Durban, South Africa, 24 to 29 November 2008 noted that the impact of the modifications to flight data processing systems would vary from one air navigation service provider and State to another depending on their data requirements, the level of validation necessary and the types of systems in place, and would require significant effort and lead time for States, air navigation service providers and aircraft operators.

2.83 It was noted furthermore that because the change-over should be coordinated with all stakeholders, the planning and implementation regional groups (PIRGs) should develop coordinated transition plans with common strategies and mitigation measures. The RAN Meeting therefore agreed to a basic checklist in the form of a Performance Framework Form (PFF), to be followed by States and used by APIRG to monitor transition efforts. Accordingly, the SP AFI RAN formulated Recommendation 6/5 – *Implementation of the new ICAO model Flight Plan Form*.

2.84 It was noted with concern that the AFI Region preparations, which (other than the AFI/8 guidance) are yet to start effectively, were almost 18 months in delay, given the lead time provided by ICAO in May 2008.

2.85 Besides the transition guidelines already published by ICAO in State Letter AN 13/2.1-09/9 dated 06/02/2009, the Sub-Group was informed about and introduced to the Flight Plan Implementation Tracking System (FITS), a web-based tool that can be accessed at <http://www2.icao.int/en/FITS/Pages/home.aspx> to monitor the implementation of the new FPL in all ICAO Regions and help States and stakeholders organization involved in flight data processing system to clarify issues related to the interpretation and implementation of the new provisions.

2.86 It was noted that in order to facilitate preparation, a brief questionnaire regarding existing and planned flight plan processing capability and points of contact was circulated under cover of a State Letter in December 2009. Only 20 States responded. It was agreed that due to time constraints for the transition, prior to States providing focal points for the transition, attendees of the ATS/AIS/SAR SG/11 meeting would fulfil the necessary

coordination role. In order to address the necessary coordination and guidance requirements, the ATS/AIS/SAR SG/11 also agreed to establish a flight plan transition task force.

2.87 Based on the above, the ATS/AIS/SAR SG/11 formulated the following Draft Decision:

DRAFT DECISION 11/41: ESTABLISHMENT OF THE AFI FLIGHT PLAN TRANSITION TASK FORCE (FPLT TF)

That, in order to enable a harmonized Regional implementation of Amendment 1 to the Fifteenth Edition of PANS-ATM (Doc 4444) in coordination with other ICAO Regions:

- a) *the AFI Flight Plan Transition Task Force (FPLT TF) is established with the terms of reference (TOR) at **Appendix O** to this working paper.*
- b) *the Task Force should, if practical hold its first meeting as soon as possible but no later than September 2010;*
- c) *AFI States are urged to provide to the Task Force information requested with regard to its studies and assessments, with minimum delay; and*
- d) *noting that after APIRG 17 the next regular meeting of APIRG will be in 2012, the ATS/AIS/SAR SG may endorse the Regional Strategy and Plan to the Task Force TOR, including changes thereto, on behalf of APIRG.*

2.88 The Sub-Group was of the view that, in consideration of the preparatory and implementation issues related to the new flight plan format, as well experience from other Regions, it is necessary to educate concerned stakeholders in order to enable their optimum contribution in the transition process. In this regard, the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 11/42: CONVENING OF A WORKSHOP ON IMPLEMENTATION OF NEW ICAO FLIGHT PLAN MODEL PROVISIONS

That, in order to enable the optimum contribution of relevant stakeholder in the transition to and implementation of the new ICAO flight plan mode provisions, Regional Offices arrange workshops to sensitize and inform States, ANSPs and related entities.

REVIEW OF AIR NAVIGATION DEFICIENCIES IN THE AIS, ATM, MAP AND SAR FIELDS

2.89 The Sub-Group noted past efforts and concerns by the RAN Meetings, ALLPIRG and with the framework of APIRG to resolve identified air navigation deficiencies in the AFI Region. The Sub-Group also drew attention to the definition of “deficiency” as approved by the ICAO Council, “*a deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation*”

2.90 The ATS/AIS/SAR SG/11 noted that based on currently available information at the Secretariat as of March 2010, 44 States have no deficiencies in the field of ATM, 51 in the fields of AIS/MAP, while in the field of SAR most States (40-45) have three similar deficiencies identified between 1991 and 1995. The meeting agreed that the existing list of deficiencies is not useful, given the picture reflected by, inter alia, reports from the USOAP audit of AFI States, unsatisfactory condition reports (UCRs) considered by the AFI Tactical Action Group (TAG). The current list of deficiencies is at **Appendix P** to this working paper.

2.91 The meeting acknowledged that a comprehensive review of the AFI deficiency database is necessary in order to more closely reflect the actual status of deficiencies, and in turn to trigger appropriate measures to resolve such deficiencies. Accordingly, the meeting formulated the following Draft Conclusions:

DRAFT CONCLUSION 11/48: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE ATM, AIS/MAP AND SAR FIELDS

That, in order to facilitate the updating of the deficiency database by the Regional Offices, and to foster the elimination of deficiencies in the AFI Region

- a) APIRG Subsidiary bodies and Secretariat establish a comprehensive list comprising all air navigation deficiencies consistent with the ICAO definition of deficiency as approved by Council, for necessary attention; and;*
- b) States and international organizations (including IATA, IFALPA, IFATCA) are urged to actively contribute towards updating the deficiency database, by providing to the Regional Offices, information on the implementation status of SARPs and Air Navigation Plan (ANP) requirements;*
- c) AFI States provide copies of action plans developed in pursuant to SP AFI/8 RAN Recommendation 6/25 to the concerned APIRG Subsidiary bodies and the Regional Offices.*
- d) APIRG adopt a matrix similar to the model in safety management guidance (Appendix F) to facilitate a consistent assessment and prioritization of deficiencies (i.e. Urgent, Top Priority and Intermediate requirement).*

DRAFT CONCLUSION 11/49: DEVELOPMENT OF THE AFI WEB-BASED AIR NAVIGATION DEFICIENCY DATABASE

That, in order to enable States and International Organizations to contribute directly to the deficiency database on a continuous basis, ICAO Regional Offices expedite the development of a web-based AFI Air Navigation Deficiencies Data Base (AANDDD).

APPELLATION OF THE SUB-GROUP AND FUTURE WORK PROGRAMME

2.92 The Sub-Group recalled the background issues relating to the establishment and appellation of the Sub-Group, including the dissolution of the CNS/ATM Sub-Group that was replaced by the ATM Sub-Group, use of the ATS and ATM terminologies within ICAO, and noted functional experiences within APIRG and other PIRGs.

2.93 In discussing options for change of the name of the Sub-Group to more accurately reflect its functions and current developments, the Sub-Group gave consideration to the meaning of air traffic management (ATM) used in the context of PANS-ATM (Doc 4444), the wider meaning in the ATM Operational Concept, other views and probable impact of the name. It was also acknowledged that replacement of ATS, AIS and SAR by ATM in favour of the wider meaning of the latter, could very well lead to a situation whereby some authorities misunderstand the name to mean that AIS and SAR expertise is not required at the Sub-Group meetings and its business.

2.94 Concern was also raised that despite various efforts including APIRG and RAN Meetings Conclusions and Recommendations aimed at encouraging the participation of SAR experts in the meetings of ATS/AIS/SAR Sub-Group, the SAR field was consistently, significantly underrepresented in the Sub-Group meetings. Furthermore, typically only one working paper covers SAR issues in the Sub-Group meetings. It was noted that part of the challenge could be the limitation or lack of SAR expertise in the Region.

2.95 In this context, the Sub-Group recognized the importance of retaining SAR in the Sub-Group name, and agreed to increase focus on SAR issues. Moreover, it was agreed that ICAO Regional Offices should increase the use of targeted communication to States urging them to include SAR expertise to the Sub-Group meetings and to actively contribute to the work of the Sub-Group with such materials as working papers.

2.96 It was also agreed to change the AIS in the name to AIM, consequently to change the name from ATS/AIS/SAR Sub-Group to ATM/AIM/SAR Sub-Group. The meeting also reviewed and updated the terms of reference of the Sub-Group and accordingly formulated the following Draft Decision:

DRAFT DECISION 11/50: APPELLATION AND TERMS OF REFERENCE OF THE ATM/AIS/SAR SUB-GROUP

*That, in order to facilitate consistency in the use of terminology and associated developments, the APIRG ATS/AIS/SAR Sub-Group is re-titled Air Traffic Management/ Aeronautical Information Management/ Search and Rescue/ Sub-Group (ATM/AIM/ SAR SG) with the terms of reference as at **Appendix Q** to this working paper.*

2.97 Further to the above, the Sub-Group deliberated at length on the matter of joining the ATS/AIS/SAR SG and the CNS/SG in order to improve coordination between the two Sub-Groups as well as improve efficiency. The matter was further deliberated by participants of the ATS/AIS/SAR Sub-Group and the CNS/Sub-Group in a joint session held in the fourth day of the meeting.

2.98 After considering various pros and cons related to functional efficiency, convening of meetings and related costs, current budget trends, probable impact on participation of expertise in all fields necessary, and other related matters, the merger of the two Sub-Groups was not agreed by the Joint Session of the ATS/AIS/SAR SG/11 and CNS SG/3. However, the Secretariat was urged to ensure that the future meetings of the two Sub-Groups continue to meet in the same week and that joint sessions should be arranged as necessary to ensure coordination on specific issues.

DATE AND VENUE OF THE NEXT SUB-GROUP MEETING

2.99 The Sub-Group agreed to convene its next meeting at the Regional Office in Dakar, Senegal, noting in particular that the Government of Senegal has recently completed new facilities hosting the Regional Office. The meeting would tentatively be in the April-May-June time frame in 2011 depending on coordination by the Regional Office.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this working paper;
- b) endorse the way forward highlighted in the working paper
- c) agree on Draft Conclusions and Draft Decision presented in this working paper.
