INTERNATIONAL CIVIL AVIATION ORGANIZATION

THE AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP (APIRG)

REPORT OF THE FOURTEENTH MEETING OF THE AIR TRAFFIC MANAGEMENT/AERONAUTICAL INFORMATION MANAGEMENT/SEARCH AND RESCUE SUB-GROUP

ATM/AIM/SAR SG/14

(Dakar, Senegal, 11 – 14 May 2015)

Approved by the Meeting
and published by authority of the Secretary General

TABLE OF CONTENTS

PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1   The Fourteenth Meeting of the Air Traffic Management/Aeronautical Information Management/Search and Rescue Sub-Group (ATM/AIM/SAR SG/14) was held in Dakar, Senegal from 11 to 15 May 2015.

2. OPENING

2.1   The Meeting was opened by Mr. Mam Sait Jallow, ICAO Regional Director, WACAF Office, Dakar. In his opening remarks, Mr. Jallow welcomed all delegates to Dakar and to the fourteenth meeting. He expressed appreciation on the level of attendance and thanked States and Organizations that had made it possible for the officials to attend the meeting.

2.2   Mr. Jallow highlighted the work of the ATM/AIM/SAR/SG involves all the five ICAO Strategic Objectives namely: Safety, Efficiency and Capacity, Security, sustainable development of air transport and protection of the Environment. Additionally, it encapsulates all the key Performance Improvement Areas (PIAs) in the ICAO flagship programme, the Aviation Systems Block Upgrade (ASBU) modules.

2.3   Finally, Mr. Jallow reminded the participants that their primary role in the Sub-Groups was the interest of the AFI Region, and as such urged them to work as experts of the Sub-Group in order to achieve Regional goals.

3. ATTENDANCE

3.1   The ATM/AIM/SAR/SG/ 14 meeting was attended by a total of fifty nine (59) participants from nineteen (19) States and six (6) organisations. The list of participants is at **APPENDIX-1A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1   The meeting was chaired by Mr. Geoffrey Okot, Manager ATM, Uganda. Mr. Seboseso Machobane, Regional Officer ATM/SAR ESAF Office was the Secretary of the meeting, supported by Messrs. Albert Taylor, Regional Officer ATM/SAR Dakar, and Mr. George Baldeh Regional Officer AIM from WACAF Office.

5. LANGUAGE

5.1   Discussions were conducted in the English and French languages and documentation was also issued in the two languages.

6. **AGENDA**

6.1   The following Agenda was adopted:

ICAO Strategic Objective	Agenda Item No.	Subject
	1.	Adoption of the Provisional Agenda and election of the Chairperson and Vice Chairperson
A & B	2.	Review of the outcome of the APIRG Extraordinary Meeting (APIRG/EO), 10-11 July 2014
A & B	3.	Status of implementation of the Sub-Group work programme and related Task Forces/Working Groups as assigned by APIRG
A & B	4.	Linkage of remaining tasks of the Sub-Group with Aviation System Block Upgrades Modules (B0) and Regional Performance Objectives
A & B	5.	Identification and development of projects based on Aviation System Block Upgrades (B0) and Regional Performance Objectives
A, D & E	6.	Review of the new Air Navigation Plan structure and the development of draft material for endorsement by APIRG
	7.	Any other business

7. **CONCLUSIONS AND DECISIONS –**

DEFINITION

7.1   All APIRG Sub-Groups and Task Forces record their actions in the form of Conclusions and Decisions with the following significance:

    a)   **Conclusions** deal with matters which, in accordance with the Group's terms of reference, merit directly the attention of States on which further action will be initiated by ICAO in accordance with established procedures; and

    b)   **Decisions** deal with matters of concern only to the APIRG and its contributory bodies.

LIST

7.2   The list of ATM/AIM/SAR SG/14 Conclusions and Decisions, which include the reformulated ATS/AIS/SAR SG/10 Conclusions and Decisions, are at **Appendix-1B-1** to this Report.

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1:   ADOPTION OF THE PROVISIONAL AGENDA

1. ADOPTION OF THE AGENDA AND ELECTION OF THE CHAIRPERSON

1.1   The meeting reviewed the proposed agenda which had been forwarded to States and international organizations as an attachment to the invitation State Letter, and adopted it as indicated in paragraph 6 of the History of the Meeting.

2. REVIEW OF OUTCOME OF THE APIRG EXTRAORDINARY MEETING (APIRG/EO)

2.1   The Sub-Group reviewed outcome of the APIRG/EO Meeting, Lusaka, Zambia, 10-11 July 2014 and noted key changes that included the following:

> (a) Significant reduction of subsidiary bodies
> (b) Establishment of the following new Sub-Groups aligned with Performance Improvement Areas (PIA) of the Aviation Systems Block Upgrades (ASBU):
>> a.   Projects Coordination Committee (APCC)
>> b.   Airspace and Aerodrome Operations Sub- Group (AAO/SG),
>> c.   Infrastructure and Information Management Sub-Group (IIM/SG)
>> d.   Traffic Forecasting Group (TFG),
>
> Establishment of project approach to implementation which features
>> a.   Projects
>> b.   Project Teams
> (c) Revision in the procedures (APIRG Handbook) for participation in the activities of the Group, with more emphasis on the utilization of existing expertise from States as opposed to the Secretariat.

Projects and Project Teams

2.2   The Sub Group noted that the project approach, which was a key feature of the new APIRG working methodology, would require clearly defined projects which will be delivered by teams of specialist/experts. In this regard, the Sub-Group also recognized that in some States' organizations (service providers, regulatory bodies, user and professional bodies, etc.) there could be marked internal movement of staff, which present a challenge with respect to, consistent participation of officials nominated to specific projects. It was acknowledged, however, that in assigning expertise to Project Teams, States and organizations were expected to be mindful of such constraints and establish internal modalities to ensure consistent participation in APIRG subsidiary bodies including Project Teams.

2.3   The Sub Group also noted that some tasks, such as those currently delivered by the AFI Tactical Action Group (TAG) had a continuing nature. It was agreed nevertheless, that in order to manage deliverables in such cases, projects would still be given time to end and be re-established as necessary.

3. STATUS OF IMPLEMENTATION OF THE SUB-GROUP WORK PROGRAMME

3.1   The Sub-Group reviewed progress and achievements from the activities of the Sub-Group itself as well as the APIRG subsidiary bodies reporting to it. In particular, the meeting reviewed and noted progress made with respect to the APIRG Conclusions and Decisions as consolidated by the Nineteenth Meeting of APIRG in October 2013. Furthermore, the meeting reviewed the status of implementation in respect of the following:

   a) Performance based navigation (PBN)
   b) Air traffic services (ATS) routes identified under the tasks for review of the AFI ATS route network
   c) Safety Management
   d) Reporting and analysis of ATS incidents
   e) Safety in the implementation of RVSM and specific issues AFI Tactical Action Group (TAG)
   f) Air traffic control (ATC) and regional alignment of Class A airspace
   g) Contingency plans required under Chapter 2 of Annex 11 to the Chicago Convention
   h) Strategic Lateral Offset Procedures
   i) Plan of division between the lower and upper airspace
   j) Application of the 10 minutes longitudinal separation
   k) Civil/Military Cooperation and Coordination
   l) Flexible Use of Airspace
   m) Resolution of missing flight plans
   n) ATS competency study
   o) AFI Secondary Surveillance Radar (SSR) code allocation and assignment plan and methodology

3.2   The issues discussed hereunder were given special attention:

Outcome of recent events

3.2.1   *TAG/6 and TAG/7 Meetings* – The Sub-Group noted that the number of Unsatisfactory Condition Reports (UCR) remained high. It was also noted, that ATC staff issues, in particular training and proficiency, as well as deficiencies in communication facilities, continued to contribute significantly to the number of UCRs. The number of aircraft proximity (AIRPROX) incidents remained a concern, with 38 of the 88 UCRs reviewed by TAG/7 being AIRPROXs.

3.2.2   The meeting noted progress being made with respect to resolving UCRs in the interface between Gaborone and Luanda FIRs, inter alia, by implementing unidirectional tracks.

3.2.3   The Sub Group also noted safety concerns raised at TAG/7 with regard to the airspace sectorisation within Accra FIR which related to the management of airspace over Benin and Togo. The Sub-Group discussed the matter extensively wherein ASECNA and some of its member States expressed concerns, inter alia, on consideration of the TAG/7 outcome, and decisions of States related to their sovereignty.

3.2.4   It was recalled that procedurally, records of the Sub-Group meeting could not be in the form of minutes. However, specific divergent views expressed in relation to decisions taken or conclusions reached shall be recorded as an integral part of the report. It was also recalled that the Sub-Group mandate was confined to matters of a technical nature. Based on the safety issues highlighted, the Sub-Group formulated the following Draft Conclusion:

DRAFT CONCLUSION 14/01:   **RESOLUTION OF AIRSPACE MANAGEMENT CHALLENGES IN ACCRA FIR OVER THE TERRITORIES OF BENIN AND TOGO**

That, in view of the potential risk for negative safety implications including increased cockpit workload, risk of traffic coordination failure between Air Traffic Control Centres and the complexity of air traffic management:

a)   **Ghana, Benin, Togo and ASECNA consider alternative solutions to the airspace management challenges related to the airspace in the Accra FIR over Benin and Togo, other than measures that would result in the fragmentation of the airspace and air traffic services with consequential safety issues; and**

b)   **ICAO be invited to facilitate discussions and related processes to seek and implement operational measures that would address concerns of the States, taking into consideration international standards including ICAO Assembly Resolutions and Strategic Objectives.**

Note: ASECNA expressed reservation in relation to the Draft Conclusion, citing corporate principles and other non-technical (political) reasons. The reservation was endorsed by Senegal, and seconded by Mali and Mauritania. It was noted that non-technical matters were beyond the mandate of the Sub-Group. Accordingly the Draft Conclusion would be presented to APIRG with the note.

Secretariat Note: Since the ATM/AIM/SAR SG/14 Meeting, the ICAO WACAF Regional Office convened a meeting 13-15 July 2015 relating the 6 sectorisation of the Accra FIR. Outcome of the meeting includes aspects that are related to the concern that gave rise to the Draft Conclusion.

3.2.5   *Performance based navigation (PBN)* – The Sub-Group recalled that there had been various implementation support efforts by APIRG and the Secretariat, including the Regional PBN plan adopted by APIRG, seminars and workshops and a template for development of National PBN implementation plans). In addition, the African Flight Procedures Programme (AFPP) was established in 2013 (prelaunch in May 2014). Notwithstanding, it was noted that progress remained slower than the goals set by Assembly Resolution A37-11.

3.2.6   Notably, the number of States that had developed national PBN implementation since 2012 was only five, bringing the total number from 13 to 18. Furthermore, many of the plans still required significant improvements and were not formally adopted and funded by the

respective States. Namibia and Senegal were the last two States to develop their national plan. The two plans were categorized as "robust" and were formally adopted by the State.

1) Botswana
2) Ethiopia
3) Cape Verde
4) DRC
5) Ghana
6) Kenya
7) Madagascar
8) Mauritius
9) Namibia
10) Niger
11) Nigeria
12) Rwanda
13) Senegal
14) Seychelles
15) South Africa
16) Tanzania
17) Togo
18) Uganda

3.2.7   The Sub Group noted that users had played and continued to play a significant role in supporting the implementation of PBN in particular approach procedures. The meeting encouraged users to be more involved in the stages beyond design and validation of procedures, and in particular to support training efforts.

3.2.8   The Sub Group noted the overall status of PBN implementation against the Assembly Resolution A37-11 as reflected in the figure hereunder.
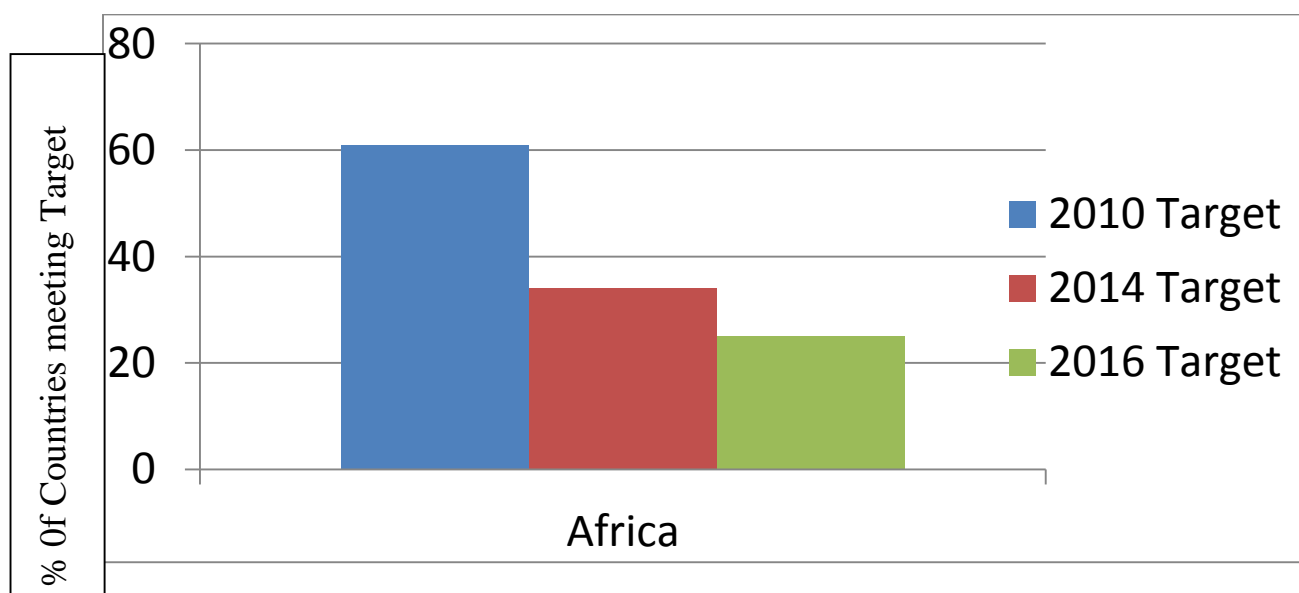
3.2.9   It was expected that the addition of the AFPP to efforts of APIRG, ICAO Regional Offices and Headquarters will provide for adequate support to African States to move significantly towards achieving the PBN implementation goals set by the Assembly (A37-11). States' commitment was however, imperative.

3.2.10   The Sub Group reviewed *AFI Regional PBN Implementation Plan* and noted that it largely remained valid. It was acknowledged that although many States in the region were significantly lagging with respect the implementation goals of Assembly Resolution A37-11, the goals, on which the Regional Plan was based, were retained. As such States and ANSPs should take necessary measures close the gap. The Sub-Group agreed on an updated version of the AFI Regional PBN Implementation Plan, noting the changes mainly constituted clearer alignment with the Assembly Resolution A37-11 and editorial improvements, and accordingly the following Draft Conclusion:

DRAFT CONCLUSION 14/02:   **UPDATED AFI REGIONAL PBN IMPLEMENTATION PLAN**

That:

a) **The updated AFI Regional PBN Implementation Plan is adopted as at Appendix-4A-1 and 4A-2 to the report on agenda item 4.**

b) **States and organizations that have not already done so, make all necessary efforts to close the gap on goals set in the Regional Plan, and in this respect strongly consider approaching the AFPP for assistance and advice, in addition to the Regional Offices.**

(N*ote 1: this Draft Conclusion is intended to supersede APIRG Conc1. 19/64)*
(Note 2: The updated AFI Regional Implementation Plan at Appendix 4A be utilized by HQ to update the AFI Region PBN Implementation Plans in the 2015 Global Air Navigation Report)

3.2.11 States and ANSP were urged to undertake airspace concept exercises in order to facilitate methodical implementation of the Aviation System Block Upgrade (ASBU) modules such as B0-CCO and B0-CDO which are enabled by PBN.

3.2.12 The Sub-Group also acknowledged that training has remained one of the major challenges to fully realizing the benefits PBN implementation. In this respect, it was noted in particular that while many States had designed and publish PBN procedures, air traffic controller training and in some cases flight crew training was lagging. As such, the procedures were not been adequately used. It was noted that the Secretariat was in consultation with various aviation training centres in the region to develop courses in which they could accommodate candidates from other States to provide appropriate training for operational purposes applicable to air traffic controllers.

3.2.13 The Sub Group also acknowledged the role of the African Civil Aviation Commission (AFCAC) in assisting States in the implementation of PBN through various mechanisms including seminars and workshops. In this regard it was noted that AFCAC was planning to hold a workshop to support the implementation of ASBU, in July 2015 in Zambia. Specific dates would be provided in due course.

African Flight Procedure Programme (FPP)

3.3 The Sub-Group noted with appreciation launch in May 2014, of the African Flight Procedure Programme (AFPP) which was established pursuant to the Special AFI/08 RAN Meeting in 2008. The meeting also noted that many States, at some organizational levels, were still not aware of the services and benefits of the AFPP, and accordingly formulated the following Draft Conclusion:

DRAFT CONCLUSION 14/03:   **OPTIMIZATION OF THE FUNCTIONS OF THE AFRICAN FLIGHT PROCEDURE PROGRAMME (AFPP)**

That, in order to attain optimum benefits from the AFPP and to effectively support progress in the implementation of PBN in the region:

a)   African States are urged to approach the AFPP to establish how best they could participate in the Programme and to benefit from its establishment;

b)   The AFPP take concerted effort to provide information and sensitize States on taking advantage of its establishment and functions and services

3.4   The Sub-Group highlighted the importance of coordinated efforts by all stakeholders through a strategic planning document. The Sub-Group therefore formulated the following Draft Conclusion:

DRAFT DECISION 14/04:   REGIONAL PERFORMANCE BASED NAVIGATION   (PBN) STRATEGIC ACTION PLAN

That, taking into consideration the low status of PBN implementation in relation to the global goals, ICAO be requested to develop a Regional PBN Strategic Action Plan with appropriate strategies to facilitate coordinated efforts of stakeholders including States, ICAO, AFCAC, and airspace users, to enhance the effectiveness of their collective implementation support.

3.4.1   *Air Traffic Services Competencies Study Group (ATSCSG)* – The Sub-Group noted the first meeting ATSCSG had been held in Nairobi, Kenya, from 22 to 23 July 2014 and agreed on actions to carry out its work including circulation of surveys to collect information.

Strategic Lateral Offset Procedures (SLOP)

3.5   The Sub Group noted that many FIRs had still not implemented SLOP pursuant to APIRG Conclusion 17/43 as replaced by Conclusion 19/62 (see SLOP Implementation hereunder). Recognizing the criticality of SLOP with regard to improvement of the AFI ATS route network and RVSM safety the Sub-Group urged States that had not already done so, to take necessary action, including consideration of guidance provided in ICAO Circular 331, without further delay. It was noted that the ARMA has provided, on its website information and guidance including a template to assist in the publications relating to SLOP.

Status of SLOP implementation at time of the ATM/AIM/SAR SG/14 Meeting	
SLOP	**SLOP**

FIR	Implemented	FIR	Implemented
Antananarivo	Yes	Beira	Processing
Brazzaville	Yes	Harare	Yes
Cabo Verde	*Yes*	Lusaka	Processing
Dakar Oceanic	*Yes*	Lilongwe	No
Dakar Terrestrial	Yes	Mauritius	No
N'djamena	Yes	Seychelles	Yes
Niamey	Yes	Dar Es Salaam	No
Gaborone	No	Windhoek	No
Cape Town	**No**	Luanda	Yes
Johannesburg	**No**	Kinshasa	Yes
Johannesburg Oceanic	No	Addis Ababa	No
Nairobi	**No**	Mogadishu	No
Entebbe	No	Asmara	No
Algiers	To be Confirmed	Khartoum	No
Tripoli	No	Kano	No
Roberts	Yes	Accra	Yes

Contingency Plans (CPs)

3.6   On the issue of development and publication of contingency plans (CPs) required in Chapter 2, Section 2.30 of Annex 11 to the Chicago Convention, the meeting noted that in some States there was lack of clarity on how to include provisions for public health emergencies (PHE) in the CP since PHE was the responsibility of other (non-aviation) government bodies. However, the inevitability of PHE provisions was acknowledged. It was recalled that in the recent Ebola outbreak in some West African States, the issuing of NOTAMs related to the outbreak and efforts to contain it clearly demonstrated the need for advance planning and providing for such emergencies.

3.7   Explanation was provided that inclusion of the PHE provisions would have to take into consideration specific institutional arrangements in a State. It was necessary for ATS authorities to consult with relevant government bodies responsible for PHE, in order to be informed and advised on how best to include PHE provisions in the CP.

Separation Standards

3.8   It was noted that since the 10 minute longitudinal separation was agreed for regional implementation in 2003, there had been operational requirements which justify reduction of separation minima in specific FIRs. In addition, there had been many developments creating an environment that support lower separation minima in order to improve airspace capacity and

efficiency. These include PBN as an enabler and increased coverage of communication and surveillance technologies (SSR, Multilateration, CPDLC/ADS-C, ADS-B, etc.). It was agreed that harmonization continued be critically important to maintain safety and to optimize the capacity and efficiency operational benefits. Accordingly, a project should be identified (under agenda item 5 of the meeting) for the harmonized review and implementation of separation minima.

ATS incidents reporting and investigation

3.9   The Sub Group noted that the reporting of incidents and deficiencies in the region was low, despite there being so much to report. Examples were provided of some areas where the World Food Programme (WFP) had reported several incidents including AIRPROXs, but many airlines operating in the same area had not reported any incidents. The reporting of deficiencies was a similar but more pronounced challenge. It was noted that the TAG had agreed to contribute towards reporting by making the reporting ATS incident report form more user friendly for flight crews and making it available in an electronic format. Information was provided that IFALPA was working with operators to improve the reporting of incidents and deficiencies.

3.10   In addition, the meeting noted that effective investigation, development of investigation reports and safety recommendations also remained a challenge. It was apparent that in many instances officials carrying these tasks required training. It was also noted that in some cases, incidents were investigated but reports were not shared, due to concerns on image of that the reports might portray on the organization or State concerned.

3.11   It was highlighted that the issue of the "Just Culture" continued to be a critical factor negatively affecting the reporting of incidents. While the matter was well provide for in safety management, many States still had a long way to the establishment and functioning of safety management mechanisms as provided for in Annex 19 to the Chicago Convention. In addition, due to other more urgent challenges, the AFI Plan had established over 60% effective implementation of the safety oversight critical elements (CEs), as a status point from which more focus could be directed at the implementation of safety management (SSP).

3.12   The Sub Group noted with appreciation that the US Federal Aviation Administration (FAA) had offered (AFI TAG/7 meeting, March 2015) to assist the region with training of officials involved in the investigation of ATS incidents in order to strengthen the efforts aimed at learning more from the incidents and finding solutions to reduce the incidents.

ATS route network improvement

3.13   Concern was raised that improvement of the regional ATS route network benefited users at the expense of undue pressure on the air traffic controllers. However, it was noted that the implementation of the improved network was, in accordance with safety management principles, standards and normal practice, supposed to be included in safety assessments and resource

provisions where necessary, by ATS providers. These would include training and adequate staff. Notwithstanding, the meeting noted that operators should take into consideration the factors involved in accommodating their requirements, make their requests through the regional route development mechanisms and provide adequate time for requirements to be provided for.

3.14   The Sub Group noted that the PRND Working Group had completed the primary task of comprehensively improving the route network. Remaining tasks to be considered in the new APIRG working methodology would be mainly coordination of implementation, maintenance of the route system, and facilitating more flexible navigation concepts in the ASBU B0-FRTO.

Missing Flight Plans

3.15   The Sub Group agreed that missing flight plans continued to be an issue to be effectively resolved, and discussed the matter in detail. The safety aspect related to flight crew, who for instance, discover after several hours of flight and crossing a number FIRs, that their FPL had not been received by one of the FIRs, presented obvious cockpit workload. Air traffic controllers were also required to copy airborne FPLs. Moreover, implications of aircraft which for the lack of FPL are "not known" to ATC, were highlighted.

3.16   The Sub Group recalled APIRG Conclusion 19/23: *Resolution of the Issue of Missing Flight Plans*, and further recognized that a number of conclusions and recommendations had been formulated in the course of time while attempting to address the matter. While some ANSPs reported encouraging improvements from efforts taken, it was noted that many of the conclusions and recommendations were not being effectively implemented by all States and ANSPs in the region.

3.17   It was noted that an informal ATM Coordination Meeting for Southern AFI FIRs held in Johannesburg in February 2015 under the aegis of ICAO, had identified that most of the challenges in missing flight plans had to do with operational aspects (e.g. personnel training) as opposed to shortcomings in equipment or infrastructure.

3.18   It was agreed that an effort should be through a mechanism in the new structure and working methodology of APIRG as well as the Secretariat, to consolidate all conclusions and recommendations formulated over time by various forums, for all stakeholders in the resolution of missing flight plans, to implement.

Implementation of ADS-C/CPDLC

3.19   The Sub Group noted information on the progressive implementation of ADS-C/CPDLC in region as per **APPENDIX-4B**. Thirteen (13) ANSPs had implemented ADS-C/CPDLC systems in the region and nine (9) were in advanced stages. The meeting also recognized the need for monitoring the performance of these systems to ensure safety, and in this regard recalled APIRG Conclusion 19/30: *Establishment of a Data Link Central Monitoring and Reporting Agency*

(DL/CMRA). The Sub Group acknowledge user concern on the possible cost implications of the establishing the DL/CMRA, and referred the matter with user proposals to the APIRG CNS Sub-Group.

Global Operational Data Link Document (GOLD)

3.20   The Sub Group noted that the GOLD had been updated and agreed on the application of the updates, pending completing of a manual under development by ICAO to replace the GOLD. South Africa, which has been the custodian of the GOLD in the AFI region, was requested to appoint/nominate a specific focal point replace the previous focal point.

Aeronautical Information Management (AIM) Matters

3.21   The Sub Group noted the outcome of the Third meeting of the AFI Region AIM Implementation Task Force was convened at the ICAO WACAF Office, Dakar, Senegal from 15 - 17 October 2014. The main objective of this meeting was to provide guidance to States, in line with Conclusion 19/40 and relative to regional and State planning and implementation of the transition from AIS to AIM.

3.22   The Sub Group also reviewed the Report of the First Working Group Meeting on the implementation of ANC Rec. 3/8 (c), held in Dakar, Senegal from 13-14 October 2014 and its deliberations by the meeting, resulted with endorsement of the attached list of Draft Conclusions and Recommendations at **Appendix-1B-2**

Search and Rescue (SAR)

3.23   The Sub Group noted that minimal progress had been achieved in the area of SAR. Among others, the establishing of SAR agreements continued to be a challenge. The meeting noted that the format of the agreement could be part of the challenge in respect of the levels at which the agreements were to be signed. While acknowledging the need for high level agreements, the meeting recognized the potential benefit of establishing agreements at lower level in order to facilitate operational cooperation, in particular coordination of SAR efforts where political issues are not necessarily involved.

3.24   The Sub Group urged States to provide updated information on the status of implementation in the area of SAR, as requested by Secretariat, and accordingly formulated the following Draft Conclusion

DRAFT CONCLUSION 14/05: REPORTING OF IMPLEMENTATION PROGRESS

That, in order to facilitate the clear identification of challenges and prioritization of implementation support, States are urged to provide status of implementation in various areas as requested by the Secretariat, and in particular, to respond to surveys to that effect.

Reduced Vertical Separation Minimum (RVSM)

ARMA Report – The Sub Group recalled that the ARMA was guided specifically by the AFI RMA Manual and ICAO Doc 9574 which contains the following five primary functions that are expected to be carried out by the ARMA:

(i) Maintain a data base of AFI RVSM approvals
(ii) Monitor aircraft height-keeping performance and the occurrence of large height deviations and report results appropriately
(iii) Conduct Safety Assessments and report results appropriately
(iv) Monitor operator compliance with State approval requirements
(v) Initiate necessary remedial actions if RVSM requirements are not met

RVSM Approvals – The Sub Group noted that the AFI RVSM Approvals lists may be viewed at the following ARMA webpage: www.atns.co.za/afi-rvsm . States listed in the Table hereunder have been included in the dataset as the data was of the minimum standard required by ICAO for distribution. It is was recommended that all States (regulatory authorities), aircraft operators and ANSP consult the table on a regular basis to ensure that the data was correct, and send amendments to ARMA.

Algeria (All)	Djibouti (Unsure)	Mali (All)	Seychelles (All)
Angola (All)	Eritrea (All)	Mauritius (All)	Senegal (All)
Botswana (All)	Ethiopia (All)	Mozambique (All)	Sudan (All)
Burkina Faso(All)	Gabon (All)	Namibia (All)	Swaziland (All)
Cameroon (All)	Gambia (All)	Niger (All)	Togo (All)
Cabo Verde (All)	Ghana (All)	Nigeria (All)	Uganda (All)
Chad (All)	Kenya (All)	Reunion (All)	Zambia (All)
Congo (All)	Libya (Unsure)	RSA (All)	Zimbabwe (All)
Côte d'Ivoire (All)	Madagascar (All)	Rwanda (All)	
DRC (Limited)	Malawi (All)	Sao Tome (Unsure)	

RVSM Operations approval survey – The meeting noted the outcome of the aircraft RVSM approval survey for December 2014, carried out as per ICAO Regional Monitoring Agency Coordination Group (RMACG) tasking. It was noted that the ARMA was unable to conduct surveys by flight plans due to limited access to such information. As such, surveys were conducted by scrutinizing RVSM safety assessment traffic flow data per FIR and establishing RVSM status per aircraft with reference to the *AFI RVSM Approvals* database and those of other regions. In most cases, flight plans were also requested from Area Control Centres (ACCs) to support the non-approval and UCR findings. Nominally 30 AFI FIR's were monitored. However, only 20 FIR's were assessed, four less FIR's assessed than in the 2013 assessment. In this regard, the meeting noted that all FIRs should submit traffic data in order for the assessment to successfully include all the FIRs.

It was noted that 64367 flights were assessed and 10 aircraft were found to be non-RVSM approved, a reduction from 204 aircraft in 2013. However, the 10 aircraft conducted multiple flights in the AFI RVSM airspace during December 2014 and operated without a State RVSM Approval.

Monitoring Height Keeping Performance – The meeting noted that the ARMA Height Monitoring Program had since been fully established and AFI CAA's were expected to ensure cooperation with ARMA to maintain the height monitoring targets for each operator's fleet. Obligations of States in this regard are clearly provided for in Annex 6 the Chicago Convention.

Notably the ARMA Height Monitoring burden is 575 aircraft, with 224 still requiring monitoring; i.e. 38% as opposed to the 48% in 2013. It was reported that, reluctance by some CAAs to comply with Annex 6 provisions had been observed. CAAs were urged to ensure compliance with the Annex 6 standards and to cooperate with the ARMA. Lack of compliance could result in unnecessary inconvenience to operations, such as withdrawn aircraft RVSM approvals.

Safety Assessments – The meeting noted that Safety Assessments were continuously being undertaken pursuant to the Safety Policy. While the data for the 2015 safety assessment showed an encouraging trend, States/ANSPs were urged to improve on their submission of the data in order to improve the quality of the assessment results.

AFI RVSM National Programme Managers – The meeting recalled the important role fulfilled by the NPMs in the continuing success in RVSM monitoring and operations, and urged States and ANSPs to provide updated information on the NPMs and their contact details to the ARMA at regular intervals.

ATS coordination failures and Separation breakdown – The Sub Group was informed that during the course of 2013 and 2014 it had become evident that one of the RVSM system risks which needed to be addressed with increased emphasis was that of ATS coordination failures (non-coordination, errors in coordination, etc.). It was noted that this situation was being addressed by AFI TAG and ACCs were urged to continue reporting traffic coordination failures, so that the hotspots could be identified and remedial action proposed for implementation by concerned parties.

The Sub Group also noted the outcome of both the AIAG meetings and the RVSM Collision Risk Assessments indicated that loss of separation at ATS route crossing points was a system risk that needed to be addressed. A proposal would be discussed during the overview of CRA 8.

RVSM Deficiencies – The Sub-Group recalled that the RVSM deficiency list, which had been presented at the Thirteenth meeting of the ATM/AIM/SAR Sub-Group for the first time was endorsed by the APIRG/18 in Kampala, Uganda in March 2012. It was also recalled that the safety of the RVSM system relies on the full participation of all AFI States, in accordance with the commitments they made during the RVSM implementation phase. In this case, it was imperative that States listed in the deficiency lists at **Appendixes-3A, 3B, and 3C** to this report, should take all necessary action to ensure that remedial measures are identified and effectively implanted with minimum delay, and provide updates on the resolution of the deficiencies to the ARMA as necessary.

While it remained imperative for States and ANSPs to honour their obligations with regard to RVSM safety, it was noted that that there has been a big improvement in kerbing the operation of non-RVSM approved aircraft in AFI RVSM airspace.

The Sub Group noted that the States of Libya and Sudan had both been transferred to the MIDRMA located in Bahrain for RVSM system monitoring and that the aforementioned States no longer resorted under the ARMA. This decision is contained in the MIDANPIRG 14 report

4. LINKAGE OF REMAINING TASKS OF THE SUB-GROUP WITH AVIATION SYSTEM BLOCK UPGRADES MODULES (B0) AND REGIONAL PERFORMANCE OBJECTIVES

4.1 The Sub Group reviewed the ASBUs and Regional Performance Objective adopted by APIRG at its Nineteenth meeting in 2013, as well as tasks identified by the Sub-Group through it various subsidiary bodies, and acknowledged the requirement for the linking of tasks with the ASBUs Block 0 Modules in order to ensure coordinated implementation.

4.2 The Sub Group also discussed linking of the tasks with Block 1 Modules, noting that Block 1 was only two years away and preparedness was necessary. It was however, agreed that while some States were fairly advanced in implementation and would be in a position to commence with Block 1 by 2018, most States still had much to with Block 0. In this respect, focus of the Sub-Group should continue to be on Block 0, while preparing to transition to Block 1

4.3 Due to time constraints for the meeting, the Sub-Group mandated the Secretariat to carry out the exercise of linking the tasks with Modules for presentation to APIRG.

DRAFT DECISION 14/06: LINKAGE OF REMAINING TASKS WITH ASBU BLOCK 0 MODULES

That, the Secretariat is mandated to carry out, on behalf of the ATM/AIM/SAR Sub-Group, the exercise of linking the remaining tasks of the Sub-Group, with the ASBU Block 0 Modules for presentation to APIRG for its consideration.

5. IDENTIFICATION AND DEVELOPMENT OF PROJECTS BASED ON ASBU AND REGIONAL PERFORMANCE OBJECTIVES

Projects to be carried out under the AAO/SG and IIM/SG

5.1 The Sub-Group reviewed the work implicated in the ASBU Block 0 Modules and Regional Performance Objectives adopted by APIRG at its Nineteenth meeting in 2013, as well as remaining tasks from the subsidiary bodies of APIRG, and agreed on the list of Projects to be proposed to APIRG, to be carried out under the AAO/SG and IIM/SG. It was noted that, in some cases it may be cost effective for two or more projects to be carried out by one Project Team. However, it was still beneficial to identify each project by itself in order to facilitate its management.

5.2 The Sub Group however, noted that as familiarity with respect to the new organization structure and working methodology of APIRG was still in progress. It was therefore agreed that States and organizations be given the opportunity to further reflect on the outcome of the ATM/AIM/SAR SG/14 in this respect and to submit additional proposals for projects, if any, before the APIRG/20 meeting. In this respect, the meeting agreed on the following Draft Decision:

**DRAFT DECISION 14/07: PROJECTS UNDER AERODROME OPERATIONS AND
                                    AIRSPACE SUB-GROUP (AAO/SG) PROPOSED FOR
                                    ADOPTION BY APIRG**

      That,

a) **The projects identified at Appendix-5A to the report on agenda item 5, are adopted for implementation by project teams identified in the project definitions and in accordance with the conditions therein;**

b) **States submit to the Secretariat not later 31 August 2015, proposals for additional projects that may not have been identified during ATM/AIM/SAR SG/14 to be assessed and prioritized together with those identified during the meeting. A Working Group comprising the following is mandated to receive and process the project proposals:**
   (i) **States: Kenya, Nigeria, South Africa**
   (ii) **Organizations: ASECNA**
   (iii) **Chairperson of ATM/AIM/SAR Sub-Group**
   (iv) **ICAO Secretariat supporting the ATM/AIM/SAR Sub-Group**

DRAFT DECISION 14/08:   UPDATING THE AIM RELATED TASKS OF THE IIM/SG

That,
the updated information given in Appendix-5B be endorsed as the AIM related Tasks of the Infrastructure and Information Management Sub-Group (IIM/SG).

DRAFT DECISION 14/09:   AIM PROJECTS IN THE AFI REGION FOR THE PERIOD   2015 TO 2017

That,
the information given in Appendices-5C-1 to 5C-3, to the report on agenda item 5, be endorsed to formulate (AIM) Projects in the AFI region for the period 2015 to 2017.

AFI Key Performance Indicators, Targets and Monitoring

5.3   The Sub Group was presented with and discussed proposed Key Performance Indicators and targets for the AFI Region as per **APPENDIX-5D.** The Sub-Group agreed that the Secretariat should further develop the target and circulate them to the members of the Sub-Group for comments prior to be submission to APIRG/20. It was also noted that quantitative status of implementation in the ATM could not be clearly established due to lack of information from States and concerned organizations. Consequently, information was not available for updating the ICAO global and regional dashboards for purposes of performance monitoring. In this respect, the Sub-Group agreed on the following Decision:

DRAFT DECISION 14/10:   AFI KEY PERFORMANCE INDICATORS, TARGETS AND MONITORING

> **That, the Secretariat continues to develop and establish targets for air navigation services Key Performance Indicators and circulate them to the members of the Sub-Group for comments by end of August prior to submission to APIRG/20.**

6. REVIEW OF THE NEW AIR NAVIGATION PLAN STRUCTURE AND THE DEVELOPMENT OF DRAFT MATERIAL FOR ENDORSEMENT BY APIRG

6.1   The Sub-Group recalled that, based on a review undertaken by ICAO, the Twelfth Air Navigation Conference (AN-Conf/12) Montreal, November 2012, agreed on Recommendation 6/1- *Regional performance framework – planning methodologies and tools*, calling States and the Planning and Implementation Regional Groups (PIRGs) to:

finalize the alignment of regional air navigation plans with the Fourth Edition of the Global Air Navigation Plan by May 2014;

focus on implementing aviation system block upgrade Block 0 Modules according to their operational needs, recognizing that these modules are ready for deployment;

use the electronic regional air navigation plans as the primary tool to assist in the implementation of the agreed regional planning framework for air navigation services and facilities;

involve regulatory and industry personnel during all stages of planning and implementation of aviation system block upgrade modules;

develop action plans to address the identified impediments to air traffic management modernization as part of aviation system block upgrade planning and implementation activities.

6.2   The Recommendation also requested ICAO to take action in order to support the work of PIRGs with respect to the Air Navigation Plan. In this regard, the Secretariat developed proposals for changes to the regional ANPs which included a new structure, format and content. The proposals include a *template* for eANP which comprises three volumes, instead of the existing two.

   a)   Volume I contains stable plan elements whose amendment necessitates approval by the Council such as the assignment of responsibilities to States for the provision of aerodrome and air navigation facilities;

      b)   Volume II contains dynamic plan elements, the amendment of which does not require approval by the Council (approval is by regional agreement involving the relevant PIRG); and

      c)   Volume III contains dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as ASBUs and associated technology roadmaps described in the Global Air Navigation Plan (GANP) (Doc 9750)

6.3   The Sub Group noted and endorsed the ATM, AIM and SAR material populated into Volume I and Volume II of the eANP *template*. In this regard, the Sub-Group agreed on the following Draft Conclusion:

Draft Conclusion 14/11   Contents of Tables related to the ATM, AIM and SAR parts of the new AFI eANP

That,
the information contained in Appendices A, B, C, D, E, F and G to this working paper and the AIM Paper be reviewed and updated by States not later than 31 May 2016.

6.4   The Sub Group also noted that the *template* for ANP Volume III was still under development and in this regard formulated the following Draft Decision:

Draft Decision 14/12:   Population of Volume III of the AFI eANP

That,
the Secretariat finalizes inputs to Volume III of the AFI eANP related to ATM, AIM and SAR, once the templates have been developed, and the information coordinated as necessary with States for follow-up action.