

INTERNATIONAL CIVIL AVIATION ORGANIZATION



REPORT OF THE EIGHTH MEETING OF THE ATS/AIS/SAR SUB-GROUP (ATS/AIS/SAR/SG/8)

(Dakar 10 – 12 AUGUST 2005)

Prepared by the Secretary of the ATS/AIS/SAR/SG

August 2005

The ATS/AIS/SAR Sub-Group is a Sub-Group of the AFI Planning and Implementation Regional Group (APIRG). Its Reports are therefore submitted to APIRG for review and action.

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- Agenda item 2:** Review of outstanding APIRG Conclusions/Decisions and Conclusions/Decisions of the ATS/AIS/SAR/SG/7 and the Sub-Group future work programme.
- Agenda item 3:** Review of the Report of the Seventh meeting of the RVSM/RNAV/RNP Task Force.
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- Agenda Item 10:** Consideration of specific air navigation planning and implementation problems and the review of deficiencies in the air navigation field.
- Agenda Item 11:** Any other business.

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PART I - HISTORY OF THE MEETING

1. Duration

1.1 The eighth meeting of the ATS/AIS/SAR Sub-Group was convened by the International Civil Aviation Organization at the ASECNA conference Hall, Dakar from **10 to 12 August 2005**.

2. Officers and Secretariat

2.1 The meeting elected Mr. Papa Atoumane FALL, Director of Air Navigation (ANACS), Senegal as its Chairman and Mr. Patrick KINUTHIA, Chief Air Traffic Controller, Kenya Civil Aviation Organization as its Vice-Chairman.

2.2 Mr. Apolo KHARUGA, the Secretary of the Sub-Group and Regional Officer, Air Traffic Management (RO/ATM) of the ICAO ESAF Office, acted as the Secretary of the meeting. He was assisted by Messrs. AUYO Ibrahim Usman, Regional Officer, Air Traffic Management (RO/ATM) and George BALDEH (RO/AIS) both from WACAF Office.

2.3 The meeting was opened by Mr. Andrew MENSAH, the Acting Regional Director of the ICAO Western and Central African Office. He emphasized the need for the meeting to address those deficiencies that constitute major obstacles to the provision of efficient air traffic services and recommend specific measures to eliminate them. He recalled that the Sub-Group would be reviewing the Report of the Third Meeting of the AIS Task Force and will also consider the report of the APIRG RVSM/RNAV/RNP Task Force. He noted that one of the main issues is the implementation of RVSM in AFI Region and that an update of the activities of the Task Force will be elaborated in the meeting. He recalled that the ANC/Council had recommended that States should rather concentrate their effort on elimination of deficiencies. He also pointed out that the provisions of search and rescue services and AIS/MAP services were of major concern in the Region and urged the Sub-Group to explore ways and means of improving these services.

3. Attendance

3.1 The meeting was attended by **42** experts from **14** Member States and **3** Member International Organizations, namely, ARMA, ASECNA, IATA and 1 non-Member Organization namely, AFRAA. The list of participants is given at **Appendix A** to this report.

4. Working Languages

4.1 Simultaneous interpretation services were provided in English and French and the meeting documentation was provided in these two languages.

5. Agenda

5.1. The meeting adopted the following Agenda:

- Agenda Item 1:** Election of the Chairman and Vice-Chairman.
- Agenda Item 2:** Review of outstanding APIRG Conclusions/Decisions of APIRG and Conclusions/Decisions of the ATS/AIS/SAR/SG/7 and the Sub-Group future work programme.
- Agenda Item 3:** Review of the Report of the Seventh meeting of the RVSM/RNAV/RNP Task Force.
- Agenda Item 4:** Review of the Third meeting of the AIS Automation Task Force.
- Agenda Item 5:** Review of the implementation of Area Control Service.
- Agenda Item 6:** Review of the implementation of ATS Direct Speech (ATS/DS) circuits.
- Agenda Item 7:** Review of the ATS route network.
- Agenda Item 8:** Review of the implementation of ICAO requirements in the AIS?MAP field.
- Agenda Item 9:** Review of the implementation of ICAO requirements in the Search and Rescue (SAR) services field.
- Agenda Item 10:** Consideration of specific air navigation planning and implementation problems and the review of deficiencies the air navigation field.
- Agenda Item 11:** Any other business.

6. Draft Conclusions and Decisions

6.1 The Sub-Group records its action in the form of draft Conclusions and Decisions with the following significance:

Conclusions

6.2 Conclusions when approved by APIRG or on which further action will be initiated by ICAO in accordance with established procedures deal with matters which, in accordance with the APIRG terms of reference, merit directly the attention of States.

Decisions

6.3 Decisions when approved by APIRG, deal with matters of concern only to the APIRG and its contributory bodies (i.e. Sub-Groups).

ATS/AIS/SAR/SG Decisions

6.4 Decisions dealing with matters of concern only to the ATS/AIS/SAR/SG.

7. List of Draft Conclusions

Number	Title
Draft Conclusions 8/1:	<p data-bbox="496 394 1050 427">Reporting and analysis of ATS incidents</p> <p data-bbox="496 465 1487 611">That in compliance with Assembly resolution A31-10, the provisions in the ICAO Annex 13, paragraph 7.3 and the AFI/7 Recommendation 5/26 States establish reporting systems which should be non-punitive and educational in order to capture the maximum number of incident reports.</p>
Draft Conclusions 8/2:	<p data-bbox="496 654 1273 687">ATS Operational Auditing and Proficiency Maintenance</p> <p data-bbox="496 725 1487 835">That, in the spirit of AFI/7 conclusion 5/27, the lack of standard auditing and proficiency maintenance procedures in ATS units of States be included in the APIRG list of deficiencies relating to the ATM field.</p>
Draft Conclusion 8/3:	<p data-bbox="496 875 1107 909">Application of flexible use of airspace (FUA)</p> <p data-bbox="496 947 564 981">That:</p> <ul style="list-style-type: none"> <li data-bbox="544 1019 1487 1164">a) States adopt a flexible use of airspace approach in the establishment of prohibited, restricted or danger areas such that these areas are established on temporary basis taking into account the needs of civil aviation; and <li data-bbox="544 1171 1487 1240">b) States constantly review the existence of prohibited, restricted or danger areas pursuant to LIM/AFI (1988) Rec.2/21.
Draft Conclusion 8/4:	<p data-bbox="496 1281 1102 1314">AFI RVSM Implementation – Cost recovery</p> <p data-bbox="496 1352 564 1386">That:</p> <ul style="list-style-type: none"> <li data-bbox="544 1424 1487 1534">a) IATA member airlines continue to financially support the RVSM implementation effort in order to improve safety and economy of Air Traffic across Africa; and <li data-bbox="544 1541 1487 1650">b) IATA puts in place an RVSM cost recovery scheme based on a charge imposed on all international jet flights in Africa operated by its member airlines.
Draft Conclusion 8/5:	<p data-bbox="496 1655 1342 1688">Regional Aircraft Certification Agency for RVSM Operation</p> <p data-bbox="496 1727 564 1760">That:</p> <ul style="list-style-type: none"> <li data-bbox="544 1798 1487 1908">a) States having difficulties with the implementation of operational airworthiness certification on the RVSM implementation should seek assistance from other States having this expertise; <li data-bbox="544 1915 1487 1984">b) Seminars/Workshops be conducted for airworthiness/operations personnel on issues relating to RVSM certification; and <li data-bbox="544 1991 1487 2056">c) Studies be conducted by IATA in cooperation with ICAO relating to the establishment of RVSM Certification Agencies for the AFI Region.

Number	Title
Draft Conclusion 8/6:	<p>Campaign to enhance RVSM Implementation</p> <p>That sensitization of Civil Aviation CEO/DGs by Regional Directors of ICAO and IATA on importance of RVSM and the need for its early implementation in the AFI Region be accorded priority during ICAO and IATA missions to States.</p>
Draft Conclusion 8/7:	<p>AFI RVSM Strategy/Action Plan</p> <p>That the updated RVSM Strategy/Action Plan at Appendix C be circulated to States for action.</p>
Draft Conclusion 8/8:	<p>Amendment to ICAO Doc. 7030</p> <p>That ICAO process, as soon as possible, the amendment proposal to the Regional Supplementary Procedures – Doc.7030/4 – African Indian Ocean Region (AFI) (Serial No. ESAF – S 04/1 – AFI RAC/1) which includes relevant provisions for RVSM implementation. (Appendix D refers) taking into account the results of PISC and its review by ANC.</p>
Draft Conclusion 8/9:	<p>Target Date for AFI RVSM Implementation</p> <p>That:</p> <p>a) the following target dates be met :</p> <ul style="list-style-type: none"> - review of the revised Collision Risk Assessment (CRA) by ARTF/9 in March 2006; - review of draft Pre Implementation Safety Case (PISC) by ARTF/9 in March 2006; - review of the PISC by ANC in May 2006; - implementation of all NSPs by States in June 2006; - go/delay meeting in June 2006; - issuance of RVSM implementation NOTAM by all States with a 3 AIRAC cycle notice in June 2006; - completion of re-training of all Operational staff in July 2006. <p>b) the target date for implementation of RVSM in the AFI Region will be AIRAC date 28 September 2006.</p>
Draft Conclusion 8/10:	<p>Dissemination of AIS data</p> <p>That in the spirit of APIRG conclusion 13/48, States which have not done so, establish a civil aviation website taking into account integrity, security of the information and the Guidance on the use of the public Internet for Aeronautical Applications (ICAO Doc. 9855 – AN/459).</p>

Number	Title
Draft Conclusion 8/11:	<p>Aerodrome AIS Units Implementation</p> <p>That States ensure that AIS Aerodrome Units at FASID Table AIS (1) (Appendix E) are established and manned by qualified AIS personnel.</p>
Draft Conclusion 8/12:	<p>Status of implementation of the ICAO requirements in the AIS/MAP field in the AFI Region</p> <p>That:</p> <ul style="list-style-type: none"> a) the AFI FASID Table AIS-1, which sets out the requirements pertaining to the establishment of aerodrome AIS Units in the AFI Region; b) the AFI FASID Table-AIS-2, which sets out the requirements pertaining to the aeronautical information services required at aerodromes; and c) the AFI FASID Table AIS-4, which sets out the requirements for the Integrated Aeronautical Information Package from foreign Aeronautical Information Services (AIS) to be available at aerodrome/heliport AIS Units in the AFI Region, for pre-flight briefing; be circulated to the States for update and subsequently form the amendment proposal for the FASID.
Draft Conclusion 8/13:	<p>Status of Implementation of the Integrated Aeronautical Information Package</p> <p>That the status of implementation of the integrated aeronautical information package, at Appendix F be circulated to States for update.</p>
Draft Conclusion 8/14:	<p>Organization of an Automated Aeronautical Information Services System</p> <p>That States be urged to achieve automation at a national level in accordance with APIRG/13 Conc. 13/44 (AIS Automation Strategy) and by using the Principles Governing Introduction of AIS Automation in AFI Region at Appendix G.</p>
Draft Conclusion 8/15:	<p>Participation of AIS personnel in the planning meetings relating to CNS/ATM Implementation</p> <p>That:</p> <ul style="list-style-type: none"> a) AIS personnel be involved in planning meetings relating to CNS/ATM Implementations; and b) ICAO ensures the requirements of AIS/MAP are clearly defined in the CNS/ATM Plan.

Number	Title
Draft Conclusion 8/16:	<p data-bbox="496 327 1155 360">Approach to AIS Automation in the AFI Region</p> <p data-bbox="496 398 1490 506">That with a view to ensuring progressive implementation of automated AIS systems, States, which have not yet introduced automation within their Aeronautical Information Services, are urged to:</p> <ul style="list-style-type: none"> <li data-bbox="544 546 1490 618">a) Plan to initially automate their NOTAM and pre-flight information services; and <li data-bbox="544 622 1490 725">b) arrange for the provision of automated services on their behalf on the basis of bilateral or multilateral agreements with States or other non-governmental organizations.
Draft Conclusion 8/17:	<p data-bbox="496 734 1193 768">Harmonization of AIS, MET and FPL information</p> <p data-bbox="496 808 564 842">That:</p> <ul style="list-style-type: none"> <li data-bbox="544 882 1490 1025">a) In view of AIS automation, States should take the necessary measures to enable users to access both AIS and MET information from a common interface based on the flight plan entry, to support combined AIS/MET/FPL pre-flight briefing from one common point access; and <li data-bbox="544 1030 1490 1133">b) States implement a selection functionality based on the ICAO NOTAM Selection criteria and an update briefing functionality to enable the notification of updates following an initial briefing.
Draft Conclusion 8/18:	<p data-bbox="496 1142 895 1176">Quality Management System</p> <p data-bbox="496 1216 564 1249">That:</p> <ul style="list-style-type: none"> <li data-bbox="544 1290 1490 1433">a) in accordance with Annex 15 provisions, AFI States, not having done so, are required to take the necessary measures to implement a quality management system within their Aeronautical Information Services, in conformity with the ISO 9001 series of standards; <li data-bbox="544 1438 1490 1545">b) draft questionnaire on quality management system at Appendix H be circulated to States for comments before adoption for application in the AFI Region; and <li data-bbox="544 1550 1490 1621">c) ICAO develop as a matter of urgency, an AIS Guidance material on Quality Management Systems.
Draft Conclusion 8/19:	<p data-bbox="496 1630 1490 1697">Conversion of en-route geographical coordinates to WGS 84 and updating of aeronautical charts</p> <p data-bbox="496 1738 564 1771">That :</p> <ul style="list-style-type: none"> <li data-bbox="544 1812 1490 1919">a) States, which have not done so, complete the required conversion of their coordinates to WGS 84 for en-route and FIR boundary reporting points and, accordingly, update all the aeronautical charts; and <li data-bbox="544 1924 1273 1957">b) ICAO assist States concerned in respect of a) above.

Number	Title
Draft Conclusion 8/20:	<p>Familiarization Visits</p> <p>That in the spirit of AFI/7 Rec. 12/3, States be encouraged to put in place a plan for familiarization visits to foreign AIS units.</p>
Draft Conclusion 8/21:	<p>Terms of Reference and Composition of the AIS/MAP Task Force</p> <p>That:</p> <ul style="list-style-type: none"> a) the name of the AIS/MAP automation task Force be changed to AIS/MAP Task Force in order to embrace all matters relating to AIS/MAP; and b) the revised terms of reference of the AIS/MAP Task Force at Appendix I be considered by the ATS AIS/SAR Sub-Group as its future Work Programme and Terms of Reference of the Task Force.
Draft Conclusion 8/22:	<p>Centralized AFI AIS data base</p> <p>That IATA, in cooperation with ICAO and Air Navigation Service Providers in the AFI Region, study the establishment of a centralized AFI AIS data base similar to the European Aeronautical Data base (EAD).</p>
Draft Conclusion 8/23:	<p>Implementation of ATC Service</p> <p>That States which have not yet done so, implement ATC service along all ATS routes contained in Table ATS 1 of the AFI Plan (Doc.7474) as soon as possible, but not later than 8 June 2006 in the spirit of AFI/7 Rec.5/21.</p>
Draft Conclusion 8/24:	<p>Amendment Proposal to the AFI ATS/DS Plan</p> <p>That:</p> <ul style="list-style-type: none"> a) the AFI ANP Doc.7474 Table CNS-IB be amended as shown at Appendix J; and b) in view of the revised proposed implementation date of RVSM in September 2006. States are urged to implement their ATS DS circuits as soon as possible, but not later 30 December 2006 in order to enhance safety.
Draft Conclusion 8/25:	<p>Amendment to AFI ANP Table ATS – 1</p> <ul style="list-style-type: none"> a) That the ICAO AFI ANP Table ATS-1 be amended to include a requirement for ATS routes cf. Appendix K; b) The ATS routes at Appendix L be deleted from the AFI ANP; and c) That ATS routes at Appendix M be realigned as shown.

Number	Title
Draft Conclusion 8/26:	<p>Implementation of the non-implemented routes including RNAV routes</p> <p>That:</p> <ul style="list-style-type: none"> a) the new target dates for the implementation of the non-implemented routes including RNAV routes at Appendix N should be the AIRAC date of 8 June 2006; b) States that have not yet done so, expedite the implementation of ATS routes in their FIR as shown in Appendix N to this report; pending realignment of ATS route UM998 and UM731; c) Angola, Botswana, D.R. Congo, Libya and South Africa implement segments of RNAV Route of UM731 at the common AIRAC date of 19 January 2006; and d) Angola, Botswana and D.R. Congo implement segments of RNAV routes UM998 at the common AIRAC date of 19 January 2006.
Draft Conclusion 8/27:	<p>SAR Cooperation Agreements between States</p> <p>That in order to promote a more effective and economic utilization of SAR facilities, States should enter into precise agreements with other States in order to pool their resources and provide mutual assistance in SAR operations, using the specimen agreement in the IAMSAR Manual (Doc.9731), Volume One, Appendix I.</p>
Draft Conclusion 8/28:	<p>Implementation of SAR Legislation</p> <p>That, as a matter of priority, States undertake to:</p> <ul style="list-style-type: none"> a) enact the SAR legislation that will make SAR operations legal and empower the SAR mission coordinator to request external assistance when the available facilities and personnel are found not to be coping with an emergency or are viewed impaired or insufficient to cope with a distress situation; and b) make sure that the request referred to in a) is not subjected to any approval by high level authorities, but that a notification should be sufficient.
Draft Conclusion 8/29:	<p>AFCAC Project on Search and Rescue</p> <p>That, considering the long-time problems which have continued to prevent the implementation of the ICAO provisions in the field of search and rescue, States be urged to express support to the AFCAC project aimed at expediting implementation of the ICAO SAR provisions, with particular emphasis to SAR legislation, organization and agreements.</p>

Number	Title
Draft Conclusion 8/30:	<p data-bbox="496 327 1495 394">Consideration of specific air navigation planning and implementation problems and the review of air navigation deficiencies in the Region</p> <p data-bbox="496 439 1495 539">That considering the negative impact of non implementation of the air navigation plan requirements and the persistence of serious cases of deficiencies in several parts of the AFI region; and</p> <ul data-bbox="544 584 1495 842" style="list-style-type: none"><li data-bbox="544 584 1495 651">a) States concerned should take as soon as possible concrete measures to eliminate all deficiencies at Appendix O to this report;<li data-bbox="544 696 1495 763">b) the matter be regularly followed up by the ICAO regional offices; and<li data-bbox="544 808 1495 842">c) results be brought to the attention of APIRG.

PART I - REPORT ON AGENDA ITEMS**Report on Agenda Item 1****Elections of the Chairman and Vice-Chairman**

1.1 The meeting elected Mr. Papa Atoumane FALL, Director of Air Navigation (ANACS), Senegal as its Chairman and Mr. Patrick KINUTHIA, Chief Air Traffic Controller, Kenya Civil Aviation Organization as its Vice-Chairman.

Report on Agenda Item 2:**Review of outstanding APIRG Conclusions /Decisions and Conclusions/Decisions of the ATS/AIS/SAR/SG/7 and the ATS/AIS/SAR Sub-Group future work programme**

2.1 The Sub-Group reviewed its outstanding Conclusions and Decisions in the light of developments in order to keep them current and limit their number to a minimum consistent with the progress achieved in their implementation. Those conclusions considered to be valid were retained. The meeting thus formulated the following draft conclusions.

Draft Conclusions 8/1 - Reporting and analysis of ATS incidents

That in compliance with Assembly resolution A31-10, the provisions in the ICAO Annex 13, paragraph 7.3 and the AFI/7 Recommendation 5/26 States establish reporting systems which should be non-punitive and educational in order to capture the maximum number of incident reports.

Draft Conclusions 8/2 - ATS Operational Auditing and Proficiency Maintenance

That, in the spirit of AFI/7 conclusion 5/27, the lack of standard auditing and proficiency maintenance procedures in ATS units of States be included in the APIRG list of deficiencies relating to the ATM field

Draft Conclusion 8/3 - Application of flexible use of airspace (FUA)

That:

- a. **States adopt a flexible use of airspace approach in the establishment of prohibited, restricted or danger areas such that these areas are established on temporary basis taking into account the needs of civil aviation; and**
- b. **States constantly review the existence of prohibited, restricted or danger areas pursuant to LIM/AFI (1988) Rec.2/21.**

2.2 The Sub-Group reviewed its terms of reference and future work programme and accorded priority for implementation of the tasks. This appears at **Appendix B** to this report.

Report on Agenda Item 3: Review of the report of the seventh meeting of RVSM/RNAV/ RNP Task Force

3.1 Under this Agenda Item, the Sub-Group reviewed the report of the seventh RVSM/RNAV/RNP Task Force Meeting which was held in Dakar, Senegal from **8 to 9 August 2005** pursuant to AFI/7 meeting recommendations 5/7, 5/17 and APIRG/13 Decision 13/58.

3.2 It noted that the Task Force had held seven meetings and at each of these meetings relevant conclusions were validated in order to reflect the implementation of the activities demanded by the AFI RVSM Strategy/Action Plan. The valid conclusions are contained in the Task Force/7 Report namely; conclusions 7/1 Safety Assessment Data, 7/2 civil/military coordination, 7/3 National RVSM Programme Managers, 7/4 Reporting of monitoring data, 7/6 training and seminars 7/7 guidance material for Airworthiness and operational approval 7/8 RVSM legislation 7/9 funding of RVSM program 7/10 Aircraft/operator readiness survey, 7/11, monitoring of height deviations, 7/12 AFI RVSM Safety Policy, 7/13 National Safety Plans, 7/14 State Readiness Survey, 7/15 Exchange of RVSM data between ASECNA and ARMA, 7/16 Collision Risk Assessment (CRA), 7/17 RVSM Pre-Implementation Case (PISC), 7/18 AFI RVSM Programme Office, 7/19 Adoption of Functional Hazard Analysis Report, 7/20 CVSM/RVSM Optimum Switch Overtime, 7/21 AFI RVSM core Airspace, 7/22 AFI RVSM switch-over period, 7/23 FHA Safety requirements.

3.3 The ATS/SG reviewed the conclusions that were considered of interest to APIRG and endorsed them. These conclusions are:

Draft Conclusion 8/4 - AFI RVSM Implementation – Cost recovery

That:

- a) **IATA member airlines continue to financially support the RVSM implementation effort in order to improve safety and economy of Air Traffic across Africa; and**
- b) **IATA puts in place an RVSM cost recovery scheme based on a charge imposed on all international jet flights in Africa operated by its member airlines.**

Draft Conclusion 8/5- Regional Aircraft Certification Agency for RVSM Operation

That:

- a) **States having difficulties with the implementation of operational airworthiness certification on the RVSM implementation should seek assistance from other States having this expertise;**
- b) **Seminars/Workshops be conducted for airworthiness/operations personnel on issues relating to RVSM certification; and**
- c) **Studies be conducted by IATA in cooperation with ICAO relating to the establishment of RVSM Certification Agencies for the AFI Region.**

Draft Conclusion 8/6 - Campaign to enhance RVSM Implementation

That sensitization of Civil Aviation CEO/DGs by Regional Directors of ICAO and IATA on importance of RVSM and the need for its early implementation in the AFI Region be accorded priority during ICAO and IATA missions to States.

Draft Conclusion 8/7 - AFI RVSM Strategy/Action Plan

That the updated RVSM Strategy/Action Plan at Appendix C be circulated to States for action.

Draft Conclusion 8/8 - Amendment to ICAO Doc. 7030

That ICAO process, as soon as possible, the amendment proposal to the Regional Supplementary Procedures – Doc.7030/4 – African Indian Ocean Region (AFI) (Serial No. ESAF – S 04/1 – AFI RAC/1) which includes relevant provisions for RVSM implementation. (Appendix D refers) taking into account the results of PISC and its review by ANC.

Draft Conclusion 8/9 - Target Date for AFI RVSM Implementation

That:

a) the following target dates be met :

- **review of the revised Collision Risk Assessment (CRA) by ARTF/9 in March 2006;**
- **review of draft Pre Implementation Safety Case (PISC) by ARTF/9 in March 2006;**
- **review of the PISC by ANC in May 2006;**
- **implementation of all NSPs by States in June 2006;**
- **go/delay meeting in June 2006;**
- **issuance of RVSM implementation NOTAM by all States with a 3 AIRAC cycle notice in June 2006;**
- **completion of re-training of all Operational staff in July 2006.**

b) the target date for implementation of RVSM in the AFI Region will be AIRAC date 28 September 2006.

Agenda Item 4: Review of the Report of the Third Meeting of the AIS Automation Task Force

4.1 Under this Agenda Item the Sub-Group reviewed the report of the seventh meeting of the AIS/MAP Automation Task Force which was held in Dakar from **4 to 5 August 2005**. Among the issues covered were: the provisions relating to the implementation of the Integrated aeronautical information package and the status of implementation of ICAO requirements in the AIS/MAP field.

4.2 The meeting validated the previous meeting conclusions and retained them in their future work programme. The Sub-Group endorsed the following new draft conclusions and should be considered by APIRG:

Draft Conclusion 8/10 - Dissemination of AIS data

That in the spirit of APIRG conclusion 13/48, States which have not done so, establish a civil aviation website taking into account integrity, security of the information and the Guidance on the use of the public Internet for Aeronautical Applications (ICAO Doc. 9855 – AN/459).

Draft Conclusion 8/11 - Aerodrome AIS Units Implementation

That States ensure that AIS Aerodrome Units at FASID Table AIS (1) (Appendix E) are established and manned by qualified AIS personnel.

Draft Conclusion 8/12 - Status of implementation of the ICAO requirements in the AIS/MAP field in the AFI Region

That:

- a) the AFI FASID Table AIS-1, which sets out the requirements pertaining to the establishment of aerodrome AIS Units in the AFI Region;**
- b) the AFI FASID Table-AIS-2, which sets out the requirements pertaining to the aeronautical information services required at aerodromes; and**
- c) the AFI FASID Table AIS-4, which sets out the requirements for the Integrated Aeronautical Information Package from foreign Aeronautical Information Services (AIS) to be available at aerodrome/heliport AIS Units in the AFI Region, for pre-flight briefing; be circulated to the States for update and subsequently form the amendment proposal for the FASID.**

Draft Conclusion 8/13 - Status of Implementation of the Integrated Aeronautical Information Package

That the status of implementation of the integrated aeronautical information package, at Appendix F be circulated to States for update.

Draft Conclusion 8/14 - Organization of an Automated Aeronautical Information Services System

That States be urged to achieve automation at a national level in accordance with APIRG/13 Conc. 13/44 (AIS Automation Strategy) and by using the Principles Governing Introduction of AIS Automation in AFI Region at Appendix G.

Draft Conclusion 8/15 - Participation of AIS personnel in the planning meetings relating to CNS/ATM Implementation

That:

- a) AIS personnel be involved in planning meetings relating to CNS/ATM Implementations; and**
- b) ICAO ensures the requirements of AIS/MAP are clearly defined in the CNS/ATM Plan.**

Draft Conclusion 8/16 - Approach to AIS Automation in the AFI Region

That with a view to ensuring progressive implementation of automated AIS systems, States, which have not yet introduced automation within their Aeronautical Information Services, are urged to:

- a. Plan to initially automate their NOTAM and pre-flight information services; and**
- b. arrange for the provision of automated services on their behalf on the basis of bilateral or multilateral agreements with States or other non-governmental organizations.**

Draft Conclusion 8/17 - Harmonization of AIS, MET and FPL Information**That:**

- a) **In view of AIS automation, States should take the necessary measures to enable users to access both AIS and MET information from a common interface based on the flight plan entry, to support combined AIS/MET/FPL pre-flight briefing from one common point access; and**
- b) **States implement a selection functionality based on the ICAO NOTAM Selection criteria and an update briefing functionality to enable the notification of updates following an initial briefing.**

Draft Conclusion 8/18 - Quality Management System**That:**

- a) **in accordance with Annex 15 provisions, AFI States, not having done so, are required to take the necessary measures to implement a quality management system within their Aeronautical Information Services, in conformity with the ISO 9001 series of standards; and**
- b) **draft questionnaire on quality management system at Appendix H be circulated to States for comments before adoption for application in the AFI Region; and**
- c) **ICAO develop as a matter of urgency, an AIS Guidance material on Quality Management Systems.**

Draft Conclusion 8/19 - Conversion of en-route geographical Coordinates to WGS 84 and updating of aeronautical charts**That :**

- a) **States, which have not done so, complete the required conversion of their coordinates to WGS 84 standard for en-route and FIR boundary reporting points and, accordingly, update all the aeronautical charts; and**
- b) **ICAO assist States concerned in respect of a) above.**

Draft Conclusion 8/20 - Familiarization Visits

That in the spirit of AFI/7 Rec. 12/3, States be encouraged to put in place a plan for familiarization visits to foreign AIS units.

Draft Conclusion 8/21 - Terms of Reference and Composition of the AIS/MAP Task Force

That:

- a) **the name of the AIS/MAP automation task Force be changed to AIS/MAP Task Force in order to embrace all matters relating to AIS/MAP; and**
- b) **the revised terms of reference of the AIS/MAP Task Force at Appendix I be considered by the ATS AIS/SAR Sub-Group as its future Work Programme and Terms of Reference of the Task Force.**

Draft Conclusion 8/22 - Centralized AFI AIS data base

That IATA, in cooperation with ICAO and Air Navigation Service Providers in the AFI Region, study the establishment of a centralized AFI AIS data base similar to the European Aeronautical Data base (EAD).

Report on Agenda Item 5: Review of the Implementation of the Area Control Service

5.1 Under this Agenda item, the Sub-Group reviewed the requirements for the implementation of Area Control Service in the Region.

5.2 The Sub-Group recalled the statement of Basic Operational Requirements and Planning Criteria- AFI Region requiring that the Area Control Service should be provided for all IFR flights along all ATS routes to be used by international aircraft operations, except where the type and density of traffic do not justify the provision of such service. Furthermore, the statement requires that Approach Control Service should be provided at all aerodromes used for international aircraft operations and that control areas should be established so as to encompass at least the climb to cruising levels of departing aircraft and the descent from cruising level of arriving aircraft. The AFI/7 RAN meeting in reviewing the status of implementation of the area control service in the Region developed an implementation strategy which was the subject of its Recommendation 5/21.

5.3 The Sub-Group noted with concern that the status of implementation of the area control service has been encouraging in the past years. It however, considered necessary to extend the implementation target date to **8 June 2006**. Based on the foregoing the Sub-Group formulated the following draft conclusion:

Draft Conclusion 8/23: Implementation of ATC Service

That States which have not yet done so, implement ATC service along all ATS routes contained in Table ATS 1 of the AFI Plan (Doc.7474) as soon as possible, but not later than 8 June 2006 in the spirit of AFI/7 Rec.5/21.

Report on Agenda Item 6 : Review of the implementation of ATS Direct Speech (ATS/DS) Circuits

6.1 Under this Agenda Item, the Sub-Group considered the CNS/1 Sub-Group conclusions dealing with the Table CNS-I B ATS/DS circuits. It reviewed the circuits which were required, circuits to be deleted from the CNS Plan as well as circuits requiring implementation. The sub-group has formulated draft conclusion **8/24**:

Draft Conclusion 8/24 - Amendment Proposal to the AFI ATS/DS Plan

That:

- a) **The AFI ANP Doc.7474 Table CNS-IB be amended as shown at Appendix J ; and**
- b) **in view of the revised proposed implementation date of RVSM in September 2006. States are urged to implement their ATS DS circuits as soon as possible, but not later 30 June 2006 in order to enhance safety.**

Report on Agenda Item 7: Review of the ATS Route Network

7.1 Under this Agenda item, the Sub-Group considered in detail the overall status of implementation of the basic ATS route network including RNAV routes contained in the ICAO AFI ANP (Doc 7474/27) Table ATS 1, Charts ATS 2 and ATS 3 in order to:

- a) identify additional route requirements;
- b) identify route segments requiring realignment;
- c) identify routes which can be deleted from the ANP;
- d) identify the non implemented routes and establish target date(s) for their implementation.

7.2 The Sub-Group prepared an implementation tabulation for all the non-implemented routes. The Sub-Group agreed that States be requested to implement the non-implemented routes not later than **8 June 2006**.

7.3 In view of the foregoing, the following draft conclusions were formulated:

Draft Conclusion 8/25 - Amendment to AFI ANP Table ATS – 1

- a) **That the ICAO AFI ANP Table ATS-1 be amended to include a requirement for ATS routes cf. Appendix K;**
- b) **The ATS routes at Appendix L be deleted from the AFI ANP; and**
- c) **That ATS routes at Appendix M be realigned as shown.**

Draft Conclusion 8/26 - Implementation of the non-implemented Routes including RNAV routes

That:

- a) **the new target dates for the implementation of the non-implemented routes including RNAV routes at Appendix N should be the AIRAC date of 8 June 2006; and**

- b) **States that have not yet done so, expedite the implementation of ATS routes in their FIR as shown in Appendix N to this report; pending realignment of ATS route UM998 and UM731;**

- c) **Angola, Botswana, D.R. Congo, Libya and South Africa implement segments of RNAV Route of UM731 at the common AIRAC date of 19 January 2006; and**

- d) **Angola, Botswana and D.R. Congo implement segments of RNAV routes UM998 at the common AIRAC date of 19 January 2006.**

Report on Agenda Item 8 - Review of the implementation of ICAO requirements in the AIS/MAP Field

8.1 The review of the implementation of ICAO requirements in the AIS/MAP field was conducted and relevant draft conclusions are under Agenda Item 4.

Agenda Item 9: Review of the implementation of ICAO requirements in the Search and Rescue (SAR) Services field

9.1 Under this agenda item the Sub-Group reviewed the status of implementation of all ICAO provisions relating to search and rescue services. It was noted with concern that most of these provisions had remained unimplemented and the meeting was of the view that States should be sensitized on the urgent need to take prompt corrective action and furthermore, sustained that assistance should be provided by ICAO in order to improve the provision of search and rescue services in the Region.

9.2 It was pointed out that major deficiencies still existed in the establishment of appropriate SAR Agreements and legislation.

9.3 The Sub-Group emphasized the need for States to continue supporting the AFCAC SAR project.

In view of the foregoing, the Sub-Group endorsed the following draft conclusions:

**Draft Conclusion 8/27 - SAR Cooperation Agreements
between States**

That in order to promote a more effective and economic utilization of SAR facilities, States should enter into precise agreements with other States in order to pool their resources and provide mutual assistance in SAR operations, using the specimen agreement in the IAMSAR Manual (Doc.9731), Volume One, Appendix I.

Draft Conclusion 8/28 - Implementation of SAR Legislation

That, as a matter of priority, States undertake to:

- a) enact the SAR legislation that will make SAR operations legal and empower the SAR mission coordinator to request external assistance when the available facilities and personnel are found not to be coping with an emergency or are viewed impaired or insufficient to cope with a distress situation; and**
- b) make sure that the request referred to in a) is not subjected to any approval by high level authorities, but that a notification should be sufficient.**

Draft Conclusion 8/29 - AFCAC Project on Search and Rescue

That, considering the long-time problems which have continued to prevent the implementation of the ICAO provisions in the field of search and rescue, States be urged to express support to the AFCAC project aimed at expediting implementation of the ICAO SAR provisions, with particular emphasis to SAR legislation, organization and agreements.

Report on Agenda Item 10: Consideration of specific air navigation planning and implementation problems and the review of air navigation field deficiencies

10.1 The Sub-Group recalled the concerns of the ANC and the Council related to safety impact of deficiencies. The Sub-Group noted the appreciation by the ANC and the Council of the efforts made by the APIRG as well as those of status to identify, assess and report air navigation deficiencies.

10.2 The Sub-Group updated the list of deficiencies in the ATS, SAR and AIS/MAP fields as shown in **Appendix O** and formulated the following draft conclusion :

Draft Conclusion 8/30 - Consideration of specific air navigation planning and implementation problems and the review of air navigation deficiencies in the Region

That considering the negative impact of non implementation of the air navigation plan requirements and the persistence of serious cases of deficiencies in several parts of the AFI region; and

- a) States concerned should take as soon as possible concrete measures to eliminate all deficiencies at Appendix O to this report;**
- b) The matter be regularly followed up by the ICAO regional offices; and**
- c) results be brought to the attention of APIRG.**

Report on Agenda Item 11:

Any Other Business

11.1 Nil

INTERNATIONAL CIVIL AVIATION ORGANIZATION
WESTERN AND CENTRAL AFRICAN OFFICE

Huitième réunion du Sous-groupe ATM (ATM SG/8)
Eighth meeting of ATM Sub-group (ATM SG/8)
(Dakar, Sénégal 10 - 12 août 2005)

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**TERMS OF REFERENCE, WORK PROGRAMME AND COMPOSITION
OF THE ATS/AIS/SAR SUB-GROUP**

1. Terms of reference

- a) To identify, State by State, those specific deficiencies and problems that constitute major obstacles to the provision of efficient air traffic management, aeronautical information services and search and rescue services and recommend specific measures to eliminate them.
- b) To keep under review the adequacy of requirements in the Air Traffic Management, Aeronautical Information Services and Search and Rescue fields, taking into account, *inter alia*, changes to aircraft operations and new operational requirements or technological developments.

2. Work programme

No.	Task description	Priority	Target date
1	Analyse the operational implications relating to the implementation of ICAO CNS/ATM systems in the fields of ATS, SAR, AIS/MAP and MET issues and propose any required actions with a view to ensuring their smooth integration in the operational environment.	A	continuing
2	Taking into account human factors, study problems and make specific recommendations related to ATS and AIS personnel, with a view to ensuring the best services to users. (AFI/7 Rec. 14/7)	A	continuing
3	Study the requirements for civil/military coordination procedures, including the promotion of the implementation of the concepts of joint use of airspace, free flight, flexible tracks, etc. and consider reducing and/or eliminating prohibited, restricted and danger areas. (AFI/7 Rec. 5/3)	A	APIRG/15
*4	Determine the framework within which air traffic data collection statistical analysis and forecasting should be carried out.	C	continuing
5	Review the requirements and monitor the programme of implementation of area control service. (AFI/7 Rec. 5/21)	A	APIRG/15
6	Review the existing ATS route network (including RNAV routes) on a systematic basis with a view to achieving an optimum flow of air traffic while keeping flight distances of individual flights to a minimum. (AFI/7 Rec. 5/8)	A	APIRG/15
7	Consider problems and make specific recommendations relating to ATS interface routes with other regions.	A	Continuing

No.	Task description	Priority	Target date
8	Monitor achievements and progress in the implementation of RVSM/RNAV/RNP, RSP and RTSP in the AFI Region and provide recommendations in the light of acquired experience.	A	Continuing
9	Monitor developments in SSR planning criteria and review the allocation of SSR codes in the region to ensure there is no duplication with adjacent regions. (AFI/7 Rec. 5/20)	A	Continuing
10	Review the ATS requirements for navigation. (AFI/7 Rec. 10/4)	A	APIRG/15
11	Review of ATS requirements for communication including extension of VHF coverage. (AFI/7 Rec. 5/13, Rec. 5/12 and LIM AFI Rec. 10/36)	A	APIRG/15
12	Identify the ATS requirements for surveillance (RADAR, ADS, voice etc.) (AFI/7 Rec. 11/1)	A	APIRG/15
13	Carry out studies and develop recommendations aimed at facilitating in an effective way the existing contingency plans, reduce air traffic incidents, implementation of ACAS, ATIS, pressure-altitude reporting transponders, digital flight information service (D-FIS), RVSM, MSAW/CFIT, COSPAS/SARSAT and safety oversight programs in the AFI Region.	A	Continuing
14	Monitor the implementation of uniform ATS operational auditing and proficiency maintenance. (AFI/7 Conc 5/27)	B	Continuing
15	Review the requirements and monitor the implementation of search and rescue services.	B	Continuing
16	Review the requirements and monitor the implementation of AIS and MAP services, including AIS automation.	A	Continuing
17	Analyse, review and monitor shortcomings and deficiencies in the fields of ATS, AIS/MAP and SAR.	A	Continuing
18	Develop guidance material for the reporting and investigation of air traffic incidents in the AFI Region, taking into account material developed by other organizations such as the European Commission, EUROCONTROL, FAA, etc.	A	Continuing
19	Develop a standard criteria for the determination of new ATS route requirements to be included in the ICAO AFI Air Navigation Plan	A	Continuing

Priority:

- A High priority tasks, on which work should be speeded up;
- B Medium priority tasks, on which work should be undertaken as soon as possible, but without detriment to priority A tasks;
- C Lesser priority tasks, on which work should be undertaken as time and resources permit, but without detriment to priority A and B tasks.

* This task will be a subject of coordination with the Traffic Forecasting Task Force.

3. Composition:

Algeria, Burkina Faso, Cameroon, Congo, Congo (DRC), Côte d'Ivoire, Egypt, Equatorial Guinea, Eritrea, Ethiopia, France, Gabon, Ghana, Guinea, Kenya, Madagascar, Malawi, Mauritania, Morocco, Niger, Nigeria, Senegal, Spain, South Africa, Sudan, Tanzania, Togo, Tunisia, Zambia, Zimbabwe, ASECNA, IATA and IFATCA.

**ACTION PLAN FOR IMPLEMENTATION OF
REDUCED VERTICAL SEPARATION MINIMA
IN THE AFRICA-INDIAN OCEAN REGION**

9 AUGUST 2005

Prepared by the Secretary of the RVSM/TF

AFI RVSM IMPLEMENTATION ACTION PLAN					
ID	Description	Target Date	Status	Resources	Remarks
	Program Management				
1	Agree on structure of TF to enable efficient handling of specialist technical tasks	21/11/03	Completed	Secretariat Support Team: ASECNA, SA, IATA, Nigeria, Tunisia	Completed 21 Nov 2003
2	RVSM SIP Report	21/11/03	Completed	RVSM/ITF2	Completed 21 Nov 2003
3	RVSM/RNAV/RNP TF/2 Meeting	21/11/03	Completed	RVSM/ITF2	Completed 21 Nov 2003
4	Identify resources for performing specialist technical tasks	21/11/03	Completed	RVSM/ITF2	Completed 21 Nov 2003
5	Investigate methods of funding any outside assistance required	31/03/04	Completed	ICAO/IATA	To address future funding as/when required
6	Finalize the RVSM Implementation Strategy/ Action Plan	31/12/03	Completed	ICAO	Sent 05 Dec 2003
7	Circulate RVSM Implementation Strategy/Action Plan for comments from States	5/01/04	Completed	ICAO	Sent 05 Dec 2003
8	Doc 7030 amendment Proposal Circulate proposal to States (c) ANC Approval	01/06/04 15/06/04 May 06	Completed Completed In Progress	ICAO ICAO ICAO	* Completed 31 May * Approval draft by (TF/6) * Approval final draft by TF/9 March 2006
9	States comments on RVSM implementation Strategy/Action Plan	31/-3/04	Completed	States, ICAO RVSM/ITF3	Completed 31 March 04
10	Regional RVSM informational Website	31/03/04	Completed	IACO/IATA/States	Completed 1 Feb 04
11	RVSM Seminar/RVSM ITF3	19-22/04/04	Completed	ICAO	Completed on Time
					Completed on Time
12	RVSM Seminar /RVSM/ITF/4	26-30/07/04	Completed	ICAO/RVSM ITF/4	
13	Coordination and harmonization of procedures with adjacent Regions	Ongoing	Ongoing	ICAO and AFI RMA	Continuous contact

AFI RVSM IMPLEMENTATION ACTION PLAN					
ID	Description	Target Date	Status	Resources	Remarks
14	States to send AIC re RVSM Implementation intention	Oct 05	In Progress	ICAO/States	Continuous
15	Confirm target AIRAC implementation date (AIP Supplement to be published)	Oct 05	In progress	ICAO/States	TF8 to review requirement
16	Regional RVSM implementation status reports	Ongoing	Ongoing	ICAO	Monthly
17	State Readiness Assessment, CRA, PISC, Doc.7030	March 2006	In Progress	ICAO	TF/9
18	RVSM/ARTF/5	15-16/11/04	Completed	ICAO/RVSM ITF/5	
19	RVSM/ARTF/6	25-27/05/05	Completed	ARTF/6	
20	RVSM/ARTF/8	08-09/08/05 10-12/08/5	Completed Completed	ARTF/7 ATS SG/8	
21.	RVSM/ARTF/8 and RVSM Seminar	10 – 14 October 2005	In Progress		
22.	RVSM/ARTF/9 meeting	March 06	In Progress	ARTF	
23.	RVSM TF/10 meeting and GO/NO GO meeting	June 06	In Progress	States	TF/10 to confirm date
24	Publish Trigger NOTAM	June 06	In Progress	States	TF/10 and GO/NO GO meeting to confirm date
25	Develop switch over plan	TBA ARPO		ICAO	TF8
	Aircraft Operations and Airworthiness				

AFI RVSM IMPLEMENTATION ACTION PLAN					
ID	Description	Target Date	Status	Resources	Remarks
26	Regional OPS/Airworthiness RVSM Guidance Doc	21/11/03	Completed	ICAO	Sent 05 Dec 2003 to states for action.
27	Develop regional Pilot Training RVSM Guidance Material	30/04/04	Completed	IATA	Sent to States for action May 2004.
28	Aircraft Operational approval process guidelines	31/05/04	Completed	States, ICAO	Sent to States for action June 2004.
29	Aircraft RVSM Approval Survey	On Going	In progress	ICAO/States	Continuous
30	Ensure aircraft/operator approval process Air Traffic Management	On Going	In progress	ICAO/ARMA/IATA	Airworthiness training to be provided for State authorities
31	National RVSM plan	31/03/04	Ongoing	States, ICAO	States to complete by June 2006.
32	National Safety Plan Validation Panel	12-23-09-05	In progress	ARMA/IATA/ICAO	
33	APIRG/15 Consideration of TF Reports	25-30-9-05	In Progress	ICAO	
34	Regional ATC OPS Manual	31/03/04	Completed	ICAO	Sent to States – 05/05/04
35	Determine the limits of RVSM airspace	30/06/04	Completed	States/ICAO	TF4 verified limits.
36	Regional ATC Training Program & Guidance Material	June 06	On Going	States	Instructor training completed. Refresher Retraining necessary for all ops staff
37	Simulations to assess ATC workload and possible need for airspace/air route Sector changes	March 06	In Progress	States	In National RVSM Plan
38	Letters of Agreement	March 2006	Completed	States	Specimen LOA sent to States.
39	Military aviation preparation	March 06	In progress	States	In National RVSM Plan

AFI RVSM IMPLEMENTATION ACTION PLAN					
ID	Description	Target Date	Status	Resources	Remarks
					To Identify requirements
40	National RVSM Regulatory Material	March 06	In progress	States, ICAO	
41	States assess the impact of RVSM implementation on controller automation systems and plan for upgrades/ modifications	Sept 05	In progress	States	In National Plan
42	Collect weather and turbulence data for analysis	31 /05/05	Completed	ARMA ICAO/States	TF/7
43	a) States to conduct local ATC RVSM training b) Re-training for all operational Staff	May 06 July 2006	In progress	States	TF/10 and GO/NO GO meeting June 2006
	RVSM Safety Assurance				
44	Conduct preliminary data collection and readiness assessment	On Going	In progress	ARMA/ICAO	Ongoing
45	Develop AFI RVSM Safety Policy	30/06/04	Completed	RVSM/ARTF4	Sent to States for publication July 2004.
46	a) Develop National RVSM Safety Plan	30/06/04	Completed	ICAO	Sent to States for Action July 2004.
	b) Conduct NSP workshops facilitated by ATC experts	July 05	Completed	ICAO /IATA/ATNS/ASEC NA	Nairobi & Dakar July 2005
	c) Submit NSP's for validation	31/08/05	In Progress	States	TF7
	d) Submit final NSP's after validation comments have being taken into account	31/08/05		States	TF7
	e) Once NSP's are implemented, DCA's to confirm State readiness to Implement RVSM in writing	June 06		States	TF7

AFI RVSM IMPLEMENTATION ACTION PLAN					
ID	Description	Target Date	Status	Resources	Remarks
	f) Update State readiness document	June 06		ICAO	
47	RVSM Functional Hazard Assessment (FHA)	4-8/04/05	Completed	ARMA/ICAO	3 FHA meetings conducted Final FHA 4-8/04/05. Report Completed May 2005 and adopted.
48	Validate Functional Hazard Assessment	31/05/05	Completed	RVSM ARTF/6	TF/6/25-27/05/05
49	Update activities on NSPVP, PISC, CRA, Doc.7030	10-12/10/05		TF/8	October 2005
50	RVSM Collision Risk Assessment	March 06	In progress	ARMA/ICAO/IATA	Revised assessment
51	Validate Collision Risk Assessment	March 06	In progress	RVSM ARTF/9	
52	Develop AFI Pre-Implementation Safety Case	March 06	In Progress	ARMA/ICAO/IATA	TF9 review PISC progress
53	AFI Pre-Implementation Safety Case: APIRG/ANC	May 06	In Progress	ARPO/ANC/IATA	
54	RVSM Implementation	28/09/06		States	Tentative target date.
	Monitoring Agency				
55	Evaluate options for setting up AFI RMA	21/11/03	Completed	RVSM/ITF2	Completed on time
56	Identify an AFI RMA	21/11/03	Completed	RVSM/ITF/2	Completed on time
57	Establish an AFI RMA.	31/03/04	Completed	South Africa/ICAO	Completed on time
	Post Implementation Safety Case (POSC)				
58	Validate implementation readiness template	15/11/04	Completed	ICAO/ARMA	
59	Data collection to continue for submission to ARMA	Monthly	In Progress	States	
60	Evaluate system safety after implementation			ARMA	

AFI RVSM IMPLEMENTATION ACTION PLAN					
ID	Description	Target Date	Status	Resources	Remarks
	plus 3, 6, 12 and 24 months				
61	Monitor system safety in adjacent Regions			ARMA	

ATTACHMENT

PROPOSAL FOR AMENDMENT TO THE REGIONAL SUPPLEMENTARY PROCEDURES – DOC.7030/4 AFRICAN INDIAN OCEAN (AFI) REGION

(Serial No. ESAF-S 04/1 – AFI RAC/1)

a) Proposed by:

AFI Planning and Implementation Regional Group (APIRG)

b) Proposed amendment: (*cf. Regional Supplementary Procedures, Doc.7030/4 – AFI, Part 1, Rules of the Air, Air Traffic Services and Search and Rescue, incorporating Amendment No.206*). Editorial note: Amendments are arranged to show deleted text using ~~text to be deleted~~, and added text with grey shading (text to be inserted).

Amend the SUPPs in the AFI Region as follows:

AFI REGIONAL SUPPLEMENTARY PROCEDURES

PART 1 – RULES OF THE AIR, AIR TRAFFIC SERVICES AND SEARCH AND RESCUE

These procedures are supplementary to the provisions contained in Annex 2, Annex 6 (Part II), Annex 11, PANS-ATM (Doc 4444) and PANS-OPS (Doc 8168).

Note. - The phrase “specified portions of the associated terminal control area” is intended to signify at least those portions of the TMA used by international IFR flights in association with approach, holding, departure and noise abatement procedures.

1.0 FLIGHT RULES

1.1 Visual flight rules (VFR) (A2 – 4.7 and 4.8)

1.1.1 At selected aerodromes, only VFR flights to be operated within a control zone established at an aerodrome serving international flights and in specified portions of the associated terminal control area shall:

- a) have two-way radio communications;
- b) obtain clearance from the appropriate ATC unit; and
- c) report positions, as required.

1.2 Instrument flight rules (IFR) (A2 – 2.2 and Chapter 5)

Note.- Annex 2, 2.2 permits a choice for a flight to comply with either the instrument flight rules or the visual flight rules when operated in visual meteorological conditions subject to certain limitations in Chapter 4 of the Annex. The following indicates certain further restrictions to that choice.

1.2.1 Special application of instrument flight rules

1.2.1.1 Flights shall be conducted in accordance with the instrument flight rules (even when not operating in instrument meteorological conditions) when operated above flight level 150.

1.3 Changes of flight levels (A2 – 5.2.2)

1.3.1 All changes of flight levels required by transition from the system of designated cruising levels for flights along controlled routes to the semicircular system of cruising levels, or vice versa, shall be made at points within controlled airspace.

1.3.2 The specific points to be used for the changes of flight levels mentioned in 1.3.1 shall be subject of coordination between the ATS units concerned, bearing in mind the need to avoid border points or other points where transfer of communications/transfer of responsibility would be adversely affected.

1.4 Air traffic advisory service (P-ATM, 9.1.4)

Note.- The PANS-ATM leaves it to the discretion of the pilot whether or not to obtain air traffic advisory service when available. The following procedures make it compulsory to obtain such service under certain circumstances.

1.4.1 All IFR flights shall comply with the procedures for air traffic advisory service when operating in advisory airspace.

1.5 Reduced Vertical Separation Minimum (RVSM) of 300 m (1,000 ft)

1.5.1 Area of Applicability

1.5.2 RVSM shall be applicable in that volume of airspace between FL290 and FL410 inclusive in the following flight information regions/upper flight information regions (FIRs/UIRs):

Accra, Addis Ababa, Algiers, Antananarivo, Asmara, Beira, Brazzaville, Cairo, Canarias, Cape Town, Casablanca, Dakar, Dar es Salaam, Entebbe, Gaborone, Harare, Johannesburg, Kano, Khartoum, Kinshasa, Lilongwe, Luanda, Lusaka, Mauritius, Mogadishu, Nairobi, N'Djamena, Niamey, Roberts, Sal Oceanic, Seychelles, Tripoli, Tunis, Windhoek

Note. – The volume of airspace specified in 1.5.2 will be referred to as “AFI RVSM airspace.”

2.0 FLIGHT PLANS

2.1 Contents of flight plans (A2 – 2.3; P-ATM, 4.4.1 and Appendix 2)

2.1.1 Route

2.1.1.1 Whenever possible, flights should be authorized to fly direct between any two intermediate or terminal points of the AFI ATS route network. In this case, flight progress reports should be made in relation to the significant points defining the basic route.

2.1.2 Mach number

2.1.2.1 For turbo-jet aircraft intending to operate at or above FL 250 with FIR Canarias. The Mach number planned to be used shall be specified in Item 15 of the flight plan.

2.2 Presentation of flight plan (A2 – 3.3.1.4)

2.2.1 The appropriate ATS authority exercising the Annex 2 provision, 3.3.1.4, to prescribe a lead-time other than 60 minutes before departure for the submission of a flight plan concerning a flight to be provided with air traffic control service, air traffic advisory service or flight information service shall, as far as practicable, prescribe a period of 30 minutes for that purpose.

2.3 RVSM Approval status and aircraft registration

2.3.1 Item 10 of the flight plan (Equipment) shall be annotated with the letter W if the aircraft and operator have received RVSM State approval. Furthermore, the aircraft registration shall be indicated in Item 18 of the flight plan.

2.3.2 Submission of a flight plan

2.3.2.1 Information relative to an intended flight or portion of a flight, to be provided to air traffic services units, shall be in the form of a flight plan.

2.3.2.2 In addition to military operations, operators of customs or police aircraft shall insert the letter M in Item 8 of the ICAO flight plan form.

2.3.3 Use of repetitive flight plans

2.3.3.1 Provision shall be made so that repetitive flight plans be accepted for any flight conducted on 19 January 2006 in the AFI RVSM airspace.

2.3.3.2 Flight planning for RVSM approved aircraft

2.3.3.3 Operators of RVSM approved aircraft shall indicate the approval status by inserting the letter W in Item 10 of the ICAO flight plan form, regardless of the requested flight level.

2.3.3.4 Operators of RVSM approved aircraft shall also include the letter W in Item Q of the RPL, regardless of the requested flight level. If a change of aircraft operated in accordance with a repetitive flight plan results in a modification of the RVSM approval status as stated in Item Q, a modification message (CHG) shall be submitted by the operator.

2.3.3.5 Operators of RVSM approved aircraft and non-RVSM approved State aircraft intending to operate within the AFI RVSM airspace, as specified in 2.1, shall include the following in Item 15 of the ICAO flight plan form:

- a) the entry point at the lateral limits of the AFI RVSM airspace and the requested flight level for that portion of the route commencing immediately after the RVSM entry point; and
- b) the exit point at the lateral limits of the AFI RVSM airspace and the requested flight level for that portion of the route commencing immediately after the RVSM exit point.

2.3.3.6 Operators of non-RVSM approved State aircraft with a requested flight level of FL 290 or above shall insert STS/NON RVSM in Item 18 of the ICAO flight plan form.

2.3.3.7 Flight planning for non-RVSM approved aircraft

2.3.3.8 Except for operations within the AFI RVSM transition airspace, operators of non-RVSM approved aircraft shall flight plan to operate outside the AFI RVSM airspace.

2.3.3.9 Operators of non-RVSM approved aircraft intending to operate from a departure aerodrome outside the lateral limits of the AFI RVSM airspace to a destination aerodrome within the lateral limits of the AFI RVSM airspace shall include the following in Item 15 of the ICAO flight plan form:

- a) the entry point at the lateral limit of the AFI RVSM airspace; and
- b) a requested flight level below FL 290 or above FL410 for that portion of the route commencing immediately after the entry point.

2.3.3.10 Operators of non-RVSM approved aircraft intending to operate from a departure aerodrome to a destination aerodrome which are both within the lateral limits of the AFI RVSM airspace shall include in Item 15 of the ICAO flight plan form a requested flight level below FL 290 or above FL410.

2.3.3.11 Operators of non-RVSM approved aircraft intending to operate from a departure aerodrome within the lateral limits of the AFI RVSM airspace to a destination aerodrome outside the lateral limits of the AFI RVSM airspace shall include the following in Item 15 of the ICAO flight plan form:

- a) a requested flight level below FL 290 or above FL410 for that portion of the route within the lateral limits of the AFI RVSM airspace; and
- b) the exit point at the lateral limit of the AFI RVSM airspace, and the requested flight level for that portion of the route commencing immediately after the exit point.

2.3.3.12 Operators of non-RVSM approved aircraft intending to operate from a departure aerodrome to a destination aerodrome which are both outside the lateral limits of the AFI RVSM airspace, with a portion of the route within the lateral limits of the AFI RVSM airspace, shall include the following in Item 15 of the ICAO flight plan form:

- a) the entry point at the lateral limit of the AFI RVSM airspace, and a requested flight level below FL 290 or above FL 410 for that portion of the route commencing immediately after the entry point; and
- b) the exit point at the lateral limit of the AFI RVSM airspace, and the requested flight level for that portion of the route commencing immediately after the exit point.

3.0 AIR-GROUND COMMUNICATIONS AND IN-FLIGHT REPORTING

Note.- Annex 2, 3.6.3, 3.6.5.1 and 5.3.3 and PANS-ATM, 4.11, require controlled flights and certain IFR flights outside controlled airspace to maintain a continuous listening watch on the appropriate radio frequency and to report positions in specified circumstances. The following expands such requirements and specifies additional details regarding the transmission and contents of in-flight reports.

3.1 Application

(A2 – 3.6.3, 3.6.5, 5.3.3; P-ATM, 4.11)

3.1.1 All aircraft on VFR flights, and aircraft on IFR flights outside controlled airspace, shall maintain a watch on a radio station furnishing communications for the unit providing flight information service in the flight information region and file with that station information as to their position unless otherwise authorized by the State overflown.

3.2 Time or place of position reports

(A2 – 3.6.3, 3.6.5, 5.3.3; P-ATM, 4.11)

3.2.1 Position reports additional to those required by the general position-reporting procedures shall be made when entering or leaving controlled or advisory airspace.

3.3 Transmission of position reports

(P-ATM, 4.11)

3.3.1 The last position report before passing from one flight information region to an adjacent flight information region shall also be made to the ATS unit serving the airspace about to be entered.

3.4 Air-Ground Communication Failure Procedures

3.4.1 As soon as it is known that two-way communication has failed, ATC shall maintain a vertical separation of 600m (2000ft) between an aircraft with radio communication failure and another aircraft when both aircraft are operating within the AFI RVSM airspace, unless the horizontal separation between the aircraft is considered adequate. The foregoing is based on the assumption that the aircraft will operate in accordance with 3.4.2 or 3.4.3.

Visual Meteorological Conditions (VMC)

3.4.2 Except as provided for in 3.4.3, a controlled flight experiencing communication failure in VMC shall:

- a) set transponder to Code 7600;
- b) continue to fly in VMC;
- c) land at the nearest suitable aerodrome;
- d) report its arrival time by the most expeditious means to the appropriate ATS unit.

Instrument Meteorological Conditions (IMC)

3.4.3 A controlled IFR flight experiencing communication failure in IMC, or where it does not appear feasible to continue in accordance with 3.4.2, shall:

- a) set transponder to Code 7600; and
- b) maintain for a period of 7 minutes the last assigned speed and level or the minimum flight altitude, if the minimum flight altitude is higher than the last assigned level.

FIRs.

The period of 7 minutes commences:

- i) if the aircraft is operating on a route without compulsory reporting points or has been instructed to omit position reports:

1) at the time the last assigned level or minimum flight altitude is reached, or

2) at the time the aircraft sets transponder to Code 7600, whichever is later; or if the aircraft is operating on a route with compulsory reporting points and has not been instructed to omit position reports:

i) at the time the last assigned level or minimum flight altitude is reached, or

ii) at the previously reported pilot estimate for the compulsory reporting point, or

iii) at the time the aircraft fails to report its position over a compulsory reporting point, whichever is later;

Note 1:-The period of 7 minutes is to allow the necessary air traffic control and co-ordination measures.

Note 2:- instrument meteorological conditions (IMC), aircraft will maintain the last assigned speed and level or minimum flight altitude for a period of 20 minutes instead of 7 minutes.

c) thereafter adjust level and speed in accordance with the filed flight plan;

Note: As regards changes to levels and speed, the Filed Flight Plan, which is the flight plan as filed with an ATS unit by the pilot or a designated representative, without any subsequent changes will be used.

d) if being radar vectored or proceeding offset according to RNAV without a specified limit, proceed in the most direct manner possible to rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;

Note: As regards the route to be flown or the time to begin descent to the arrival aerodrome, the Current Flight Plan, which is the flight plan,

including changes, if any, brought about by subsequent clearances, will be used.

e) proceed according to the current flight plan route to the appropriate designated navigation aid serving the destination aerodrome and, when required to ensure compliance with (f) below, hold over this aid until commencement of descent;

f) commence descent from the navigation aid specified in (e) above at, or as close as possible to, the expected approach time last received and acknowledged; or, if no expected approach time has been received and acknowledged, at, or as close as possible to, the estimated time of arrival resulting from the current flight plan;

g) complete a normal instrument approach procedure as specified for the designated navigation aid; and

h) land, if possible, within thirty minutes after the estimated time of arrival specified in (f) above or the last acknowledged expected approach time, whichever is later.

4.0 SPECIAL PROCEDURES FOR IN-FLIGHT CONTINGENCIES EUR/SAM CORRIDOR

4.1 Introduction

4.1.1 The following procedures are intended for guidance only and will be applicable within the EUR/SAM corridor. Although all possible contingencies cannot be covered, they provide for cases of:

- a) inability to maintain assigned flight level due to weather, aircraft performance, pressurization failure and problems associated with high-level supersonic flight;
- b) loss of, or significant reduction in, the required navigation capability when operating in parts of the airspace where the navigation

performance accuracy is prerequisite to the safe conduct of flight operations; and

- c) en-route diversion across the prevailing EUR/SAM traffic flow.

4.1.2 With regard to 4.1.1 a) and c) above, the procedures are applicable primarily when rapid descent, turnback, or both are required. The pilots's judgement shall determine the sequence of actions to be taken, having regard to the specific circumstances. Air traffic control (ATC) shall render all possible assistance.

4.2 General procedures

4.2.1 The following general procedures apply to both subsonic and supersonic aircraft. Although all possible contingencies cannot be covered, they provide for cases of inability to maintain assigned level due to weather, aircraft performance, pressurization failure and problems associated with high-level supersonic flight. They are applicable primarily when rapid descent and/or turnback or diversion to an alternate airport are required. The pilot's judgment shall determine the sequence of actions taken, taking into account specific circumstances.

4.2.1.1 If an aircraft is unable to continue flight in accordance with its ATC clearance, and/or an aircraft unable to maintain the navigation performance accuracy specified for the airspace, a revised clearance shall whenever possible, be obtained prior to initiating any action, using the distress or urgency signals as appropriate. Subsequent ATC action with respect to that aircraft shall be based on the intentions of the pilot and the overall traffic situation.

4.2.1.2 If prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time and, until revised clearance is received, the pilot shall:

- a) if possible, deviate away from an organized track or route system before commencing emergency descent;
- b) establish communications with and alert nearby aircraft by broadcasting, at suitable intervals, aircraft identification, flight level, aircraft position (including the ATS route designator or the track code) and intentions, on the frequency in use, and as well as on frequency 121.5 MHz (or, as a back-up[, on the inter-pilot air-to-air frequency 123.45 MHz);
- c) watch for conflicting traffic both visually and by reference to ACAS (if equipped);
- d) turn on all aircraft exterior lights (commensurate with appropriate operating limitations);
- e) switch on the SSR transponder at all times; and
- f) initiate such action as necessary to ensure the safety of the aircraft.

4.3 Subsonic aircraft

4.3.1 Initial action

4.3.1.1 If unable to comply with the provisions of 4.2.1.1 to obtain a revised ATC clearance, the aircraft should leave its assigned route or track by turning 90 degrees to the right or left whenever this is possible. The direction of the turn should, where possible, be determined by the position of the aircraft relative to any organized route or track system, eg. whether the aircraft is outside, at the edge of, or within the system. Other factors that may affect the direction of the turn to consider are the direction to an alternative airport, terrain clearance and the flight levels allocated to adjacent routes or tracks.

4.3.2 Subsequent action (RVSM airspace)

4.3.2.1 In RVSM airspace, an aircraft able to maintain its assigned flight level should turn to acquire and maintain in either direction a track laterally separated by 46 km (25 NM) from its assigned route or track in a multi-track system space at 93 km (50 NM) or otherwise, at a distance which is mid-point from the adjacent parallel route or track and:

- a) if above FL 410, climb or descend 300 m (1 000 ft); or
- b) if below FL 410, climb or descend 150 m (500 ft); or
- c) if at FL 410, climb 300 m (1 000 ft) or descend 150 m (500 ft).

4.3.2.2 An aircraft that is unable to maintain its assigned flight level should:

- a) initially minimize its rate of descent to the extent that it is operationally feasible;
- b) turn while descending to acquire and maintain in either direction a track laterally separated by 46 km (25 NM) from its assigned route or track in a multi-track system spaced at 93 km (50 NM) or otherwise, at a distance which is the mid-point from the adjacent parallel route or track; and
- c) for the subsequent level flight, select a level which differs from those normally used by 300 m (1 000 ft) if above FL 410, or by 150 m (500 ft) if below FL 410.

4.3.3 Subsequent action (non-RVSM airspace)

4.3.3.1 In non-RVSM airspace, an aircraft able to maintain its assigned flight level should turn to acquire and maintain in either direction or track laterally separated by 46 km (25 NM) from its assigned route or track in a multi-track system spaced at 93 km (50 NM) or otherwise, at a distance which is mid-point from the adjacent parallel route or track and:

- a) if above FL 290, climb or descend 300 m (1 000 ft); or
- b) if below FL 290, climb or descend 150 m (500 ft); or
- c) if at FL 290, climb 300 m (1 000 ft) or descend 150 m (500 ft).

4.3.3.2 An aircraft unable to maintain its assigned flight level should:

- a) initially minimize its rate of descent to the extent that it is operationally feasible;
- b) turn while descending to acquire and maintain in either direction a track laterally separated by 46 km (25 NM) from its assigned route or track in a multi-track system spaced at 93 km (50 NM) or otherwise, at a distance which is mid-point from the adjacent parallel route or track; and
- c) for the subsequent level flight, a level should be selected which differs from those normally used by 300 m (1 000 ft) if above FL 290 or by 150 m (500 ft) if below FL 290.

4.3.2 En-route diversion across the prevailing SAT air traffic flow

4.3.2.1 Before diverting across the flow of adjacent traffic, the aircraft should climb above FL 410 or descend below FL 280 using the procedures specified in 4.3.1 or 4.3.2 or 4.3.3.

However, if the pilot is unable or unwilling to carry out a major climb or descent, the aircraft should be flown at a level as defined in 4.3.2.1 or 4.3.3.1 until a revised ATC clearance is obtained.

4.3.3 Extended range operations by aeroplanes with two-turbine power-units (ETOPS)

4.3.3.1 If these contingency procedures are employed by a twin-engine aircraft as a result of an engine shutdown or failure of an ETOPS critical system, the pilot should advise ATC as soon as practicable of the situation reminding ATC of the type of aircraft involved, and request expeditious handling.

4.4 Supersonic aircraft

4.4.1 Turnback procedures

4.4.1.1 If a supersonic aircraft is unable to continue flight to its destination and a reversal of track is necessary, it should:

- a) when operating on an outer track of a multi-track system, turn away from the adjacent track;
- b) when operating on a random track or on an inner track of a multi-track system, turn either left or right as follows:
 - 1) if the turn is to be made to the right, the aircraft should attain a position 46 km (25 NM) to the left of the assigned track and then turn to the right into its reciprocal heading, at the greatest practical rate of turn;
 - 2) if the turn is to be made to the left, the aircraft should attain a position 46 km (25 NM) to the right of the assigned track and then turn to the left into its reciprocal heading, at the greatest practical rate of turn;

- c) while executing the turnback, the aircraft should lose height so that it will be at least 1 850 m (6 000 ft) below the level at which turnback was started, by the time the turnback is completed;
- d) when turnback is completed, heading should be adjusted to maintain a lateral displacement of 46 km (25 NM) from the original track in the reverse direction, if possible maintaining the flight level attained on completion of the turn.

Note.- for multi-track systems where the route spacing is greater than 93 km (50 NM), the mid-point distance should be used instead of 46 km (25 NM).

4.5 Weather deviation procedures

4.5.1 General

4.5.1.1 The following procedures are intended to provide guidance. All possible circumstances cannot be covered. The pilot's judgement shall ultimately determine the sequence of actions to be taken. ATC shall render all possible assistance.

4.5.1.2 If the aircraft is required to deviate from track to avoid weather and prior clearance cannot be obtained, an ATC clearance shall be obtained at the earliest possible time. Until an ATC clearance is received, the aircraft shall follow the procedures detailed in 4.5.4 below.

4.5.1.3 The pilot shall advise ATC when weather deviation is no longer required, or when a weather deviation has been completed and the aircraft has returned to the center line of its cleared route.

4.5.2 Obtaining priority from ATC when weather deviation is required.

4.5.2.1 When the pilot initiates communications with ATC, rapid response may be obtained by stating "WEATHER DEVIATION REQUIRED" to indicate that priority is desired on the frequency and for ATC response.

4.5.2.2 The pilot still retains the option of initiating the communications using the urgency call "PAN PAN" (preferably spoken three times) to alert all listening parties to a special handling condition which will receive ATC priority for issuance of a clearance or assistance.

4.5.3 Actions to be taken when controller-pilot communications are established

4.5.3.1 The pilot notifies ATC and requests clearance to deviate from track, advising when possible, the extent of the deviation expected.

4.5.3.2 ATC takes one of the following actions:

- a) If there is no conflicting traffic in the horizontal plane, ATC will issue clearance to deviate from track; or
- b) If there is conflicting traffic in the horizontal plane, ATC separates aircraft by establishing appropriate separation; or
- c) If there is conflicting traffic in the horizontal plane and ATC is unable to establish appropriate separation, ATC shall:
 - 1) advise the pilot of inability to issue clearance for requested deviation;
 - 2) advise the pilot of confliction traffic; and
 - 3) request the pilot's intentions.

SAMPLE PHRASEOLOGY

“UNABLE (requested deviation), TRAFFIC IS (call sign, position, altitude, direction), ADVISE INTENTIONS”.

4.5.3.3 The pilot will take the following actions:

- a) advise ATC of intentions by the most expeditious means; and
- b) comply with the ATC clearance issued; or
- c) execute the procedures detailed in 4.5.4 below. ATC will issue essential traffic information to all aircraft and;
- d) if necessary, establish voice communications with ATC to expedite dialogue on the situation.

4.5.4 Actions to be taken if a revised ATC clearance cannot be obtained

4.5.4.1 The provisions of this section apply to situations where a pilot has the need to exercise the authority of a pilot-in-command under the provisions of Annex 2, 2.3.1.

4.5.4.2 If a revised ATC clearance cannot be obtained and deviation from track is required to avoid weather, the pilot shall take the following actions:

- a) if possible, deviate away from the organized track or route system;
- b) establish communications with and alert nearby aircraft broadcasting, at suitable intervals: flight level, aircraft identification, aircraft position (including ATS route designator or the track code) and intentions, on the frequency in use and on frequency 121.5 MHz (or, as a back-up, on the inter-pilot air-to-air frequency 123.45 MHz);

- c) watch for conflicting traffic both visually and by reference to ACAS (if equipped);

Note.- if, as a result of actions taken under the provisions of 4.5.4.2 b) and c) above, the pilot determines that there is another aircraft at or near the same flight level with which a conflict may occur, then the pilot is expected to adjust the path of the aircraft, as necessary to avoid conflict.

- d) turn on all aircraft exterior lights (commensurate with appropriate operating limitations);
- e) for deviations of less than 19 km (10 NM), aircraft should remain at a level assigned by ATC;
- f) for deviation of greater than 19 km (10 NM), when the aircraft is approximately 19 km (10 NM) from track, initiate a level change based on the following criteria in Table 1;

Table 1

Route center line track	Deviations >19 km (10 NM)	Level change
EAST 000 ⁰ – 179 ⁰ magnetic	LEFT	DESCEND 90 m (300 ft)
	RIGHT	CLIMB 90 m (300 ft)
WEST 180 ⁰ – 359 ⁰ magnetic	LEFT	CLIMB 90 m (300 ft)
	RIGHT	DESCEND 90 m (300 ft)

- g) when returning to track, be at its assigned level, when the aircraft is within approximately 19 km (10 NM) of the center line; and
- h) if contact was not established prior to deviating, continue to attempt to contact ATC to obtain a clearance. If contact was established, continue

to keep ATC advised of intentions and obtain essential traffic information.

4.6 Special Procedures for in-flight contingencies involving a loss of vertical navigation performance required for flight within the AFI RVSM airspace

4.6.1 General

4.6.1.1 An in-flight contingency affecting flight in the AFI RVSM airspace pertains to unforeseen circumstances that directly impact on the ability of one or more aircraft to operate in accordance with the vertical navigation performance requirements of the AFI RVSM airspace, as specified in 1.5.2 Such in-flight contingencies can result from degradation of aircraft equipment associated with height-keeping, and from turbulent atmospheric conditions.

4.6.1.2 The pilot shall inform air traffic control as soon as possible of any circumstances where the vertical navigation performance requirements for the AFI RVSM airspace cannot be maintained. In such cases, the pilot shall obtain a revised air traffic control clearance prior to initiating any deviation from the cleared route and/or flight level, whenever possible. Where a revised air traffic control clearance could not be obtained prior to such a deviation, the pilot shall obtain a revised clearance as soon as possible thereafter.

4.6.1.3 Air traffic control shall render all possible assistance to a pilot experiencing an in-flight contingency. Subsequent air traffic control actions will be based on the intentions of the pilot, the over-all air traffic situation, and the real-time dynamics of the contingency.

4.6.2 Degradation of aircraft equipment — pilot reported

4.6.2.1 When informed by the pilot of an RVSM approved aircraft operating in the AFI RVSM airspace that the aircraft's equipment no longer meets the RVSM MASPS, as specified in 18, air traffic control shall consider the aircraft as non-RVSM approved.

4.6.2.2 Air traffic control shall take action immediately to provide a minimum vertical separation of 600 m (2 000 ft) or an appropriate horizontal separation from all other aircraft concerned operating in the AFI RVSM airspace. An aircraft rendered non-RVSM approved shall normally be cleared out of the AFI RVSM airspace by air traffic control, when it is possible to do so.

4.6.2.3 Pilots shall inform air traffic control, as soon as practicable, of any restoration of the proper functioning of equipment required to meet the RVSM MASPS.

4.6.2.4 The first ACC/UAC to become aware of a change in an aircraft's RVSM status shall coordinate with adjacent ACCs/UACs, as appropriate.

4.6.3 Severe turbulence — not forecast

4.6.3.1 When an aircraft operating in the AFI RVSM airspace encounters severe turbulence due to weather or wake vortex that the pilot believes will impact the aircraft's capability to maintain its cleared flight level, the pilot shall inform ATC. Air traffic control shall establish either an appropriate horizontal separation or an increased minimum vertical separation.

4.6.3.2 Air traffic control shall, to the extent possible, accommodate pilot requests for flight level and/or route changes, and pass traffic information, as required.

4.6.3.3 Air traffic control shall solicit reports from other aircraft to determine whether RVSM should be suspended entirely or within a specific flight level band and/or area.

4.6.3.4 The ACC/UAC suspending RVSM shall coordinate any such suspension(s), and any required adjustments to sector capacities with adjacent ACCs/UACs, as appropriate, to ensure an orderly progression to the transfer of traffic.

4.6.4 Severe turbulence — forecast

4.6.4.1 Where a meteorological forecast is predicting severe turbulence within the AFI RVSM airspace, air traffic control shall determine whether RVSM should be suspended and, if so, the period of time, and specific flight level(s) and/or area.

4.6.4.2 In cases where RVSM will be suspended, the ACC/UAC suspending RVSM shall coordinate with adjacent ACCs/UACs with regard to the flight levels appropriate for the transfer of traffic, unless a contingency flight level allocation scheme has been determined by letter of agreement. The ACC/UAC suspending RVSM shall also coordinate applicable sector capacities with adjacent ACCs/UACs, as appropriate.

5.0 AIR TRAFFIC CONTROL CLEARANCES

5.1 Adherence to ATC-approved Mach number (A2 – 3.6.2)

5.1.1 Air Traffic Control clearances

5.1.1 Turbojet aircraft operating at or above FL 250 within the Canarias FIR shall adhere to the Mach number approved by ATC and shall request ATC approval before making any change thereto. If it is essential to make an immediate change in the Mach number (eg. due to turbulence), ATC shall be notified as soon as possible that such a change has been made.

5.1.2 If it is not feasible, due to aircraft performance, to maintain the last assigned Mach number during en-route climbs and descents, pilots of aircraft concerned shall advise ATC

at the time of the climb/descent request.

5.1.3 ATC clearance into the AFI RVSM airspace

5.1.3.1 Except for operations within the AFI RVSM transition airspace and within specifically designated airspace, only RVSM approved aircraft and non-RVSM approved State aircraft shall be issued an air traffic control clearance into the AFI RVSM airspace.

5.1.3.2 Air traffic control clearance into the AFI RVSM airspace shall not be issued to formation flights of aircraft.

6.0 SEPARATION OF AIRCRAFT

6.1 Lateral separation

(A11 – Attachment B; P-ATM, 5.4.1 and 5.11)

6.1.1 Minimum lateral separation shall be 185 km (100 NM) except as provided for in 6.1.2 and 6.1.3 below.

6.1.2 Where aircraft are transiting into an airspace with a larger lateral minimum than the airspace being exited, lateral separation will continue to exist provided that:

- a) the smaller separation minimum exists;
- b) flight paths diverge by 15 degrees or more until the larger minimum is established; and
- c) it is possible to ensure, by means approved by the appropriate ATS authority, that the aircraft have navigation capability necessary to ensure accurate track guidance.

6.1.3 For flights on designated controlled oceanic routes or areas within the Canarias FIR (southern sector), Dakar Oceanic, Recife and Sal Oceanic FIRs, the

minimum lateral separation that shall be applied between RNAV-equipped aircraft approved to RNP 10 or better shall be 93 km (50 NM).

6.1.3.1 The letter R shall be annotated in Item 10 (Equipment) of the flight plan to indicate that the aircraft meets the RNP type prescribed.

6.1.3.2 Operators shall establish programmes to mitigate the occurrence of large lateral track errors due to equipment malfunction or operational error, which:

- a) ensure that operating drills include mandatory navigation cross-checking procedures to identify navigation errors in sufficient time to prevent aircraft inadvertently deviating from an ATC-cleared route; and
- b) provide for the continued airworthiness of aircraft navigation systems necessary to navigate to the degree of accuracy required.

Note.- Detailed guidance material on RNP is contained in the Manual on Required Navigation Performance (RNP) (Doc 9613).

6.1.3.3 A target level of safety of 5×10^{-9} fatal accidents per flight hour per dimension shall be established for route systems operating a 93 km (50 NM) lateral separation minimum and the safety level of such airspace shall be determined by an appropriate safety assessment.

Note.- Detailed guidance on conducting safety assessments is contained in the Manual on Airspace Planning Methodology for the Determination of Separation Minima (Doc 9689).

6.1.3.4 The following criteria are used in the operational assessment of airspace system safety:

- a) the proportion of the total flight time spent by aircraft 46 km (25 NM) or more off the cleared track shall be less than 7.0×10^{-4} ; and
- b) the proportion of the total flight time spent by aircraft between 74 km and 111 km (40 NM and 60NM) off the cleared track shall be less than 4.1×10^{-5} .

6.1.3.5 Adequate monitoring of flight operations shall be conducted to provide data to assist in the assessment of continuing compliance of aircraft with the lateral navigation performance capabilities of RNP 10 and 6.1.3.3 above. Such data shall include operational errors due to all causes. A safety assessment shall be carried out periodically, based on the data collected, to confirm that the safety level continues to be met.

Note:- Detailed guidance on monitoring is contained in the Air Traffic Services Planning Manual (Doc 9426) and the Manual of Airspace Planning Methodology for the Determination of Separation Minima (Doc 9689).

6.2 Longitudinal separation (P-ATM, 5.4.2 and 5.11)

6.2.1 Except as provided for in 6.2.2, the minimum longitudinal separation between turbo-jet aircraft shall be:

- a) 20 minutes, except as specified below;
- b) 15 minutes at or above FL 250 within the Canarias, Dakar Oceanic, Recife and Sal Oceanic FIRs, provided that the Mach number technique is applied, and, whether in level, climbing or descending flight, the aircraft have reported over the

same entry point to the ATS routes or a common point into the oceanic-controlled airspace and follow the same track or continuously diverging tracks; or

- c) 10 minutes or 150 km (80 NM), derived by RNAV, when the Mach number technique is applied on designated controlled oceanic routes in the EUR/SAM corridor within the Dakar Oceanic, Recife and Sal Oceanic FIRs.

6.2.2 For flight in the EUR/SAM corridor (Canarias (southern sector), Dakar Oceanic, Recife and Sal Oceanic FIRs), the minimum longitudinal separation minima between RNAV-equipped aircraft approved to RNP 10 or better on the same track shall be 93 km (50 NM) provided that:

- a) the letter R shall be annotated in Item 10 (Equipment) of the flight plan to indicate that the aircraft meets the RNP type prescribed; and
- b) a target level of safety of 5×10^{-9} fatal accidents per flight hour per dimension shall be established and the safety level of such airspace shall be determined by an appropriate safety assessment.

6.2.2.1 Adequate monitoring of flight operations shall be conducted to provide data to assist in the assessment of continuing compliance of aircraft with the longitudinal navigation performance capabilities of RNP 10. Such data shall include operational errors due to all causes. A safety assessment shall be carried out periodically, based on the data collected, to confirm that the safety level continues to be met.

Note.- Detailed guidance on monitoring is contained in the Air Traffic Services Planning Manual (Doc 9426) and the Manual on Airspace Planning Methodology for the Determination of Separation Minima (Doc 9689).

6.3 Vertical separation Minimum

6.3.1. Between FL 290 and FL 410 inclusive within the AFI RVSM airspace, the vertical separation minimum shall be:

- a) 300 m (1 000 ft) between RVSM approved aircraft;
- b) 600 m (2 000 ft) between:
- non-RVSM approved State aircraft and any other aircraft operating within the AFI RVSM airspace; and
 - non-RVSM approved State aircraft and any other aircraft operating within the AFI RVSM transition airspace and within specifically designated airspace.

6.3.2 ATC shall provide a minimum vertical separation of 600 m (2 000 ft) between an aircraft experiencing a communications failure in flight and any other aircraft, where both aircraft are operating within the AFI RVSM airspace.

~~The minimum vertical separation that shall be applied between FL 290 and FL 410 inclusive is 300 m (1 000 ft).~~

~~6.3.1 Area of applicability~~

~~The reduced vertical separation minimum (RVSM) shall be applied for flights between FL 290 and FL 410 inclusive, within the Canarias (Southern sector), Dakar Oceanic, Recife (oceanic portion) and Sal Oceanic FIRs.~~

~~————— Note. ——— Implementation will be carried out in phases and will be promulgated by appropriate AIP Supplements and included in the respective AIPs.~~

~~6.3.2 Establishment of RVSM transition areas (A2 Appendix 3; A6, Parts I and II, 7.2.3; A11 3.3.4; P-ATM, 5.3.2)~~

6.3.2.1 In order to allow for the transition of flights to and from EUR/SAM airspace, the ATS authorities responsible for Canarias, Dakar Oceanic, Recife and Sal Oceanic FIRs may establish designated RVSM transition areas. A 300 m (1 000 ft) vertical separation minimum can be applied between RVSM-approved aircraft within these transition areas.

6.3.2.2 An RVSM transition area shall have a vertical extent of FL 290 to FL 410 inclusive, be contained within horizontal dimensions determined by the provider States, be overlapping with or contained within EUR/SAM RVSM airspace and should have direct controller-pilot communications.

6.3.3 RVSM approval

The minimum separation in 6.3 shall only be applied between aircraft and operators that have been approved by the State of Registry or the State of the Operator, as appropriate, to conduct flights in RVSM airspace and that are capable of meeting the minimum aircraft system performance specification (MASPS) height-keeping requirements (or equivalent).

6.3.4 MASPS

The MASPS height-keeping requirements are as follows:

- a) for all aircraft, the differences between cleared flight level and the pressure altitude actually flown shall be symmetric about a mean of 0 m (0 ft), shall have a standard deviation no greater than 13 m (43 ft) and shall be such that the error frequency decreases with increasing magnitude at a rate which is at least exponential;
- b) for groups of aircraft that are nominally of identical design and built with respect to all details that could influence the accuracy of height-keeping performance in the RVSM flight envelope (FL 290 to FL 410 inclusive):

4) the mean altimetry system error (ASE) of the group shall not exceed 25 m (80 ft) in magnitude; and

5) the sum of the absolute value of the mean ASE and of three standard deviations of ASE shall not exceed 75 m (245 ft);

e) for non-group aircraft for which the characteristics of the airframe and altimetry system fit are unique and so cannot be classified as belonging to a group of aircraft: the ASE shall not exceed 61 m (200 ft) in magnitude in the RVSM flight envelope (FL 290 to FL 410 inclusive); and

f) the following criteria shall be used in the operational assessment of airspace system safety: the total vertical error (TVE), which is the difference between the geometric height of the aircraft and the geometric height of the flight level to which it is assigned, is required to be such that:

1) the probability that TVE equal to or greater than 91 m (300 ft) in magnitude is equal to or less than 2.0×10^{-3} ;

2) the probability that TVE equal to or greater than 152 m (500 ft) in magnitude is equal to or less than 5.0×10^{-6} ;

3) the probability that TVE equal to or greater than 200 m (650 ft) in magnitude is equal to or less than 1.4×10^{-6} ;

4) the probability that TVE between 290 m and 320 m (950 ft and 1 050 ft), inclusive, in magnitude is equal to or less than 1.7×10^{-7} ; and

5) The proportion of time that aircraft spend at incorrect flight levels, 300 m (1 000 ft), or multiples thereof, away from assigned flight levels is equal to or less than 7.1×10^{-7} .

Note.— Guidance — material regarding — the — initial achievement — and — contained maintenance of the height-keeping performance in 6.3.4 is contained in the Guidance Material on the Implementation of a 300 m (1 000 ft) Vertical Separation Minimum (VSM) for Application in the EUR/SAM corridor.

6.3.5 — Target level of safety (TLS)

Application of RVSM in the airspace designated in 6.3.1 shall meet a TLS of 5×10^{-9} fatal accidents per aircraft flight hour due to all causes of risk in the vertical dimension.

6.3.6 — Approval status and aircraft registration

Item 10 of the flight plan (Equipment) shall be annotated with the letter W if the aircraft and operator have received RVSM State approval. Furthermore, the aircraft registration shall be indicated on Item 18 of the flight plan.

6.3.7 — Operation of aircraft not approved for RVSM

6.3.7.1 — Except for areas where transition areas have been established, aircraft not meeting the requirements of 6.3.4 shall not be allowed to operate in EUR/SAM RVSM airspace.

6.3.7.2 — Exceptionally, aircraft that have not received RVSM State approval may be cleared to operate in airspace where RVSM may be applied in accordance with policy and procedures established by the State provided that 5=600 m (2 000 ft) vertical separation is applied.

Note.— Transitions to and from EUR/SAM RVSM airspace will normally take place in the first FIR in EUR/SAM RVSM airspace.

6.3.8 — Monitoring

Adequate monitoring of flight operations in the EUR/SAM RVSM airspace shall be conducted to assist in the assessment of continuing compliance of aircraft with the height-keeping capabilities in 6.3.4. Monitoring shall include assessment of other sources of risk to ensure that the TLS specified in 6.3.5 is not exceeded.

Note.— Details of the policy and procedures for monitoring established by the South Atlantic Monitoring Agency (SATMA) are contained in the Guidance Material on the Implementation of a 300 m (1 000 ft) Vertical Separation Minimum (VSM) for Application in the EUR/SAM Corridor.

6.3.9 — Wake turbulence procedures

6.3.9.1 The following special procedures are applicable to mitigate wake turbulence encounters in the airspace where RVSM is applied.

6.3.9.2 An aircraft that encounters wake turbulence should notify ATC and request a revised clearance. However, in situations where a revised clearance is not possible or practicable:

- a) — the pilot should establish contact with other aircraft, if possible, on the air-to-air frequency 123.45 MHz; and
- b) — one (or both) aircraft may initiate lateral offset(s) not to exceed 3.7 km (2 NM) from the assigned route(s) or track(s), provided that:

- ~~1) as soon as it is practicable to do so, the offsetting aircraft notify ATC that temporary lateral offset action has been taken and specify the reason for doing so; and~~
- ~~2) the offsetting aircraft notify ATC when re-established on assigned routes(s) or track(s).~~

Note. In the contingency circumstances above, ATC will not issue clearances for lateral offsets and will not normally respond to action taken by pilots.

6.4 Information on application of separation minima

(A11 – 3.4; P-ATM, 5.4.1, 5.4.2 and 5.11)

6.4.1 Where, circumstances permitting, separation minima lower than those specified in 6.1 and 6.2 will be applied in accordance with the PANS-ATM, ~~appropriate information should be published in Aeronautical Information Publications so that users of the airspace are fully aware of the portions of airspace where the reduced separation minima will be applied and of the navigation aids on the use of which those minima are based.~~

7.0 ALTIMETER SETTING PROCEDURES APPLICABLE TO AIR TRAFFIC SERVICES AND MINIMUM LEVELS
(P-ATM, 4.10 AND 4.10.3)

7.1 The lowest usable flight level for holding and approach manoeuvres shall be calculated from actual QNH, unless the pressure variation is so small that reference to climatological data is acceptable.

Note 1.- The lowest usable flight will provide a terrain clearance of at least 300 m (1 000 ft) and, for operation in the vicinity of an aerodrome will not be established below 450 m (1 500 ft) above aerodrome elevation.

Note 2.- MET Offices will inform ATS units when, in abnormal conditions, pressure goes below the minimum climatological value, in order that appropriate steps can be taken to cancel temporarily the use of the lowest flight level or levels that would not ensure the minimum terrain clearance.

7.2 Based on current and anticipated atmospheric pressure distribution, area control centers shall coordinate, where required, the lowest flight level to be used.

7.3 In determining the transition level, the table at Appendix A should be used when necessary. This table shows the transition level directly as a function of the transition altitude of the aerodrome and of the current QNH altimeter setting value.

8.0 FLIGHT INFORMATION SERVICE

8.1 Information on runway conditions

(A11 – 4.2.1; P-ATM, 6.6)

8.1.1 Unless otherwise provided, area control centers shall have available for transmission to aircraft on request immediately prior to descent, information on the prevailing runway conditions at the aerodrome of intended landing.

8.2 Transmission of SIGMET information

(P-ATM, 9.1.3.2)

8.2.1 Transmission of SIGMET information to aircraft shall be at the initiative of the appropriate ATS unit, by the preferred method of directed transmission followed by acknowledgement, or by a general call when the number of aircraft would render the preferred method impracticable.

8.2.2 SIGMET information passed to aircraft shall cover a portion of the route up to two hours' flying time ahead of the aircraft.

8.3 Transmission of amended aerodrome forecast (P-ATM, 9.1.3.5)

8.3.1 Amended aerodrome forecasts shall be passed to aircraft within 60 minutes from the aerodrome of destination, unless the information would have been made available through other means.

8.4 Transmission of trend forecasts (A11 – 4.2.2)

8.4.1 The latest trend forecasts available to the ATS unit, provided it is no more than one hour old, shall always be transmitted to an aircraft together with the latest report of routine or special observation, when the aircraft requests the latter information.

9.0 AIR TRAFFIC SERVICES COORDINATION

9.1 Coordination between units providing area control service (P-ATM, 10.3)

9.1.1 If a flight should enter an adjacent area information concerning any review of estimate of three minutes or more shall be forwarded to the adjacent area control center.

10. AIR TRAFFIC SERVICES MESSAGES

10.1 Flight plan and departure messages (P-ATM, 11.3.3 and 11.4.2.2)

10.1.1 The procedures applicable for the AFI RVSM airspace are contained in the PANS-ATM Doc.4444 paragraphs 11.3.3 and 11.4.2.

~~10.1.1 Filed flight plan messages for flights intending to operate within the NAT Region at a distance of 60 NM or less from the northern and southern boundaries of Gander Oceanic and Shanwick Oceanic flight information regions shall be addressed to the area control centers in charge of the NAT flight information regions along the route and, in addition, to the area~~

~~control centers in charge of the nearest adjacent NAT flight information regions.~~

~~10.1.2 For flights departing from points within the adjacent regions and entering the NAT Region without intermediate stops, filed flight plan message shall be transmitted to the appropriate area control centers immediately after the flight plan has been submitted.~~

10.1 Computer-assisted coordination process

10.1.1 Procedures

10.1.1.1 *Operational procedure*

10.1.1.1.1 The following basic rules shall apply for the use of EST and ACT messages:

- a) These messages shall be automatically generated, exchanged and processed to obviate human intervention to the extent practicable.
- b) A single message shall be sent in respect of each flight due to be transferred and any subsequent revision shall be the subject of verbal coordination.
- c) The message shall provide the most recent information available on all transfer conditions at the time of transmission.
- d) Acceptance by the receiving unit of the transfer conditions implied in the message shall be assumed, unless the receiving unit initiates verbal coordination to amend the transfer conditions.

Note.— Bilateral arrangement may be required to cover the event of failure of the ATS direct speech circuit.

- e) There shall be bilateral agreement as to the boundary point and transmission times for each route. The normal transmission time shall be 15 minutes before the flight concerned is expected to cross the boundary.
- f) In the event of data not being correlated by the receiving computer with an appropriate entry in its flight plan database, the computer shall originate a warning to the appropriate air traffic control sector to take necessary action for the acquisition of missing flight plan details. This shall normally involve a telephone inquiry.
- g) In the event of incomprehensible or illogical data being detected within the message, the computer shall initiate an appropriate warning to the air traffic control sector involved, if this can be determined, for further action.
- Note.— Any system-initiated warning shall require reversion to verbal coordination.*
- h) If the receiving unit has not received a flight plan, the sending air traffic control unit shall verbally inform the receiving unit of whether or not the aircraft is RVSM approved.
- i) When an automated message does not contain the information filed in Item 18 of the ICAO flight plan form relevant to RVSM operations, the sending air traffic control unit shall inform the receiving unit of that information by supplementing the ACT message verbally, using the term “NEGATIVE RVSM” or “NEGATIVE RVSM STATE AIRCRAFT”, as applicable.
- j) When a verbal coordination process is being used, the sending air traffic control unit shall include the information filed in Item 18 of the ICAO flight plan form relevant to RVSM operations at the end of the verbal estimate message, using the term

“NEGATIVE RVSM” or “NEGATIVE RVSM STATE AIRCRAFT”, as applicable.

- k) When a single aircraft is experiencing an in-flight contingency which impacts on RVSM operations, the associated coordination message(s) shall be supplemented verbally by a description of the cause of the contingency.

11.0 ALERTING AND SEARCH AND RESCUE SERVICES

11.1 Routes and equipment of private aircraft (P-ATM, 11.3.3 and 11.4.2.2)

11.1.1 General aviation aircraft operating over designated areas, land or sea, where search and rescue operations would be difficult, should:

- a) carry appropriate survival equipment:
- b) follow the route or specified procedures if not equipped with two-way radio, except that under special circumstances, the appropriate authority may grant specific exemptions from this requirement.

11.2 Alerting services (P-ATM, 9.2)

11.2.1 The procedures for “Alerting Service” detailed in the PANS-ATM, 9.2, are applicable to all flights except those conducted wholly in the vicinity of an aerodrome when exempted by the appropriate air traffic control unit.

12.0 IDENTIFICATION OF ATS ROUTES (A11, Appendix 1 – 2.4)

12.1 Composition of designators

12.1.1 The letter D to indicate that on a route or portion thereof advisory service only is provided and the letter F to indicate that on a route or portion thereof flight information service only is provided shall be added after the basic designators of the ATS route in question.

13.0 USE OF SECONDARY SURVEILLANCE RADAR (SSR) (P-ATM, Chapter 8)

13.1 Secondary surveillance radar information may be used alone for the provision of horizontal separation between properly equipped aircraft in the circumstances and under the conditions specified below:

- a) Within the coverage area of the associated primary radar, in order to overcome known deficiencies of that radar, eg. the fact that primary radar echoes of certain aircraft are not, or not continuously, presented on the radar display due to the reflecting characteristics of such aircraft, clutter, etc. In this case, SSR responses may be used for the separation of transponder-equipped aircraft and, additionally, for the separation of transponder-equipped aircraft from other known aircraft not using SSR but displayed clearly on the primary radar display, provided that the SSR responses from any aircraft (not necessarily the one being provided separation) coincide with the primary radar echo of the same aircraft.

Note.-Where SSR accuracy cannot be verified by means of monitor equipment or by visual correlation of the SSR response with the primary radar echo from a given aircraft, SSR

responses alone may be use only to provide identification.

- b) Outside the coverage area of the associated primary radar, or in certain areas (which shall be defined horizontally as well as vertically) and under circumstances specified by the appropriate authority in consultation with the operators, provided:
- 1) reliable SSR coverage exists within the area;
 - 2) the area is designated as controlled airspace;
 - 3) the control of the air traffic in the area is vested in one ATC unit unless adequate means of coordination exists between all ATC units concerned;
 - 4) actual operating experience has shown that loss of SSR responses is not occurring at a rate affecting the safety of operations and adequate measures for earliest possible detection of such losses have been developed;
 - 5) density and/or complexity of air traffic in the area and provision of navigational guidance allow a safe reversion to other forms of separation in case of SSR failure;
 - 6) the aircraft concerned have previously been identified and identification has been maintained;
 - 7) procedural separation is applied between aircraft with

functioning transponders and other aircraft; and

- 8) when primary radar fails and until procedural separation is established:
 - i) the positional accuracy of the SSR responses has been verified (see 13.1 a) and Note): and
 - ii) the pilots of the aircraft concerned have been advised.
- c) In the case of aircraft emergency.

13.2 — Carriage and operation of pressure-altitude reporting SSR transponders

13.2.1 With effect from 1 January 2000, all aircraft operating as IFR flights in the AFI Region shall be equipped with a pressure-altitude reporting SSR transponder.

13.2.2 Unless otherwise directed by air traffic control, the last assigned identity (Mode A) code shall be retained. If no identity code has been assigned, Mode A code 2000 shall be selected and retained.

14.0 USE OF AIRBORNE COLLISION AVOIDANCE SYSTEMS (ACAS)
(A2 3.2; A6, Part I 6.18; A10 Vol. IV; A11 2.4.2; P-OPS, Vol. I, Part VIII; P-ATM, Chapter 4)

14.1 — Carriage and operation of ACAS II

14.1.1 ACAS II shall be carried and operated in the AFI Region by all aircraft that meet the following criteria:

- a) With effect from 1 January 2000 all civil fixed-wing turbine-engined aircraft having a maximum take-off mass exceeding 15 000 kg or maximum approved passenger seating configuration of more than 30.

- b) With effect from 1 January 2005, all civil fixed-wing turbine-engined aircraft having a maximum take-off mass exceeding 5 700 kg or a maximum approved passenger seating configuration of more than 19.

14.2 — Responsibility for separation of aircraft during manoeuvres in compliance with a resolution advisory (RA)

14.2.1 The use of ACAS II does not alter the respective responsibilities of pilots and controllers for the safe operation of aircraft.

14.2.2 On being notified that an aircraft, under air traffic control, is manoeuvres in accordance with a resolution advisory (RA), a controller should not issue instructions to that aircraft which are contrary to the RA as communicated by the pilot. Once an aircraft departs from the current ATC clearance compliance with an RA, the controllers cease to be responsible for providing separation between that aircraft and other aircrafts affected as a direct consequence of the manoeuvre induced by the RA. However, when circumstances permit, the controller should endeavour to provide traffic information to aircraft affected by the manoeuvre. The controller's responsibility for providing separation for all the affected aircraft resumes when:

- a) the controller acknowledges a report from the pilot that the aircraft has resumed the current clearance; or
- b) the controller acknowledges a report from the pilot that the aircraft is resuming the current clearance and issues an alternative clearance which is acknowledged by the flight crew.

14.3 — ACAS

14.3.1 ACAS can have a significant effect on air traffic control. Therefore there is a continuing need to monitor the performance of

~~ACAS in the developing air traffic management environment.~~

~~14.3.2 Following an RA event, or other significant ACAS event, pilots and controllers should complete an ACAS RA report; aircraft operators and ATS authorities should forward the completed reports through established channels.~~

14. Special procedures applicable to designated airspaces

14.1 RVSM approved aircraft and non-RVSM approved State aircraft entering the AFI RVSM airspace from a non-RVSM environment

14.2 RVSM approved aircraft and non-RVSM approved State aircraft entering the AFI RVSM airspace from a non-RVSM environment shall be established at a flight level in accordance with:

- a) the Tables of Cruising Levels, as published in ICAO Annex 2, Appendix 3, a); and/or
- b) a flight level allocation scheme, if applicable; and/or
- c) as specified in an inter area control centre (ACC) letter of agreement.

14.3 Any changes from non-RVSM levels to RVSM flight levels shall be initiated by the first ACC/upper area control centre (UAC) providing air traffic control service to the aircraft within the AFI RVSM airspace, and shall be achieved before the aircraft passes the transfer of control point to the adjacent ACC/UAC, unless otherwise specified in an inter ACC letter of agreement.

14.4 Aircraft entering a non-RVSM environment from the AFI RVSM airspace

14.4.1 Aircraft entering a non-RVSM environment from the AFI RVSM airspace shall be established with the applicable vertical separation minimum.

14.4.2 The applicable vertical separation minimum shall be established by the last ACC/UAC providing air traffic control service to the aircraft within the AFI RVSM airspace, and before the aircraft passes the transfer of control point to the adjacent ACC/UAC.

14.4.3 Such aircraft shall be established at a flight level in accordance with:

- a) the Tables of Cruising Levels, as published in ICAO Annex 2, Appendix 3, b); and/or
- b) a flight level allocation scheme, if applicable; and/or
- c) as specified in an inter ACC letter of agreement.

14.5 Non-RVSM approved civil operations

14.5.1 Non-RVSM approved State aircraft operating from a departure aerodrome outside the lateral limits of the AFI RVSM airspace with a destination aerodrome within the lateral limits of the AFI RVSM airspace:

- a) shall be cleared to a flight level below FL 290; and
- b) any such flight level changes shall be initiated by the first ACC/UAC providing air traffic control service to the aircraft within the AFI RVSM airspace, and shall be achieved before the aircraft passes the transfer of control point to the adjacent ACC/UAC.

14.5.2 Non-RVSM approved aircraft operating from a departure aerodrome to a destination aerodrome which are both within the lateral limits of the AFI RVSM airspace shall be cleared to a flight level below FL 290.

14.5.3 Non-RVSM approved aircraft operating from a departure aerodrome within the lateral limits of the AFI RVSM airspace to a destination aerodrome outside the lateral limits of the AFI RVSM airspace:

- a) shall be cleared to a flight level below FL 290; and
- b) may be cleared to FL 290 or above by the last ACC/UAC providing air traffic control service to the aircraft within the AFI RVSM airspace, and any such flight level changes shall be achieved before the aircraft passes the transfer of control point to the adjacent ACC/UAC.

14.5.4 Non-RVSM approved aircraft operating from a departure aerodrome to a destination aerodrome which are both outside the lateral limits of the AFI RVSM airspace, with a portion of the route within the lateral limits of the AFI RVSM airspace:

- a) shall be cleared to a flight level below FL 290 or above FL 410 by the first ACC/UAC providing air traffic control service to the aircraft within the AFI RVSM airspace, and any such flight level changes shall be achieved before the aircraft passes the transfer of control point to the adjacent ACC/UAC, in accordance with the flight level allocation system (FLAS), if applicable, and/or as specified in an inter ACC letter of agreement; and
- b) may subsequently be cleared to a requested flight level within, or through, the AFI RVSM airspace by the last ACC/UAC providing air traffic control service to the aircraft within the AFI RVSM airspace, and any such flight level changes shall be achieved before the aircraft passes the transfer of control point to the adjacent ACC/UAC.

15 Phraseology related to RVSM Operations in the AFI RVSM AIRSPACE

15.1 Controller/pilot RTF phraseology

Phrase Meaning	Phrase Meaning
(<i>call sign</i>) CONFIRM RVSM APPROVED	For a controller to ascertain the RVSM approval status of an aircraft.
NEGATIVE RVSM*	For a pilot to report non-RVSM approval status: a) on the initial call on any frequency within the AFI RVSM airspace (controllers shall provide read back with this same phrase); and b) in all requests for flight level changes pertaining to flight levels within the AFI RVSM airspace; and
	c) in all read backs to flight level clearances pertaining to flight levels within the AFI RVSM airspace. Additionally, except for State aircraft, pilots shall include this RTF phrase to read back flight level clearances involving the vertical transit through FL 290 or FL 410.
AFFIRM RVSM*	For a pilot to report RVSM approval status.
NEGATIVE RVSM STATE AIRCRAFT*	For a pilot of a non-RVSM approved State aircraft to report non-RVSM approval status, in response to the RTF phrase (<i>call sign</i>) CONFIRM RVSM APPROVED.

UNABLE RVSM DUE TURBULENCE*	Denial of air traffic control clearance into the AFI RVSM airspace.
UNABLE RVSM DUE EQUIPMENT*	For a pilot to report that the aircraft's equipment has degraded below the MASPS required for flight within the AFI RVSM airspace. This phrase is to be used to convey both the initial indication of the non-MASPS compliance, and henceforth, on initial contact on all frequencies within the lateral limits of the AFI RVSM airspace until such time as the problem ceases to exist, or the aircraft has exited RVSM airspace.
READY TO RESUME RVSM*	For a pilot to report the ability to resume operation within the AFI RVSM airspace after an equipment or weather-related contingency.

Phrase Meaning	Phrase Meaning
REPORT ABLE TO RESUME RVSM	For a controller to confirm that an aircraft has regained its RVSM approval status, or to confirm that the pilot is ready to resume RVSM operations.

*Note.-*indicates a pilot transmission*

15.2 Phraseology between ATS units

NEGATIVE RVSM or NEGATIVE RVSM STATE AIRCRAFT [as applicable]	To verbally supplement an automated estimate message exchange that does not automatically transfer Item 18 information. Also used to verbally supplement estimate messages of non-
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	RVSM approved aircraft.
UNABLE RVSM DUE TURBULENCE [or EQUIPMENT, as applicable]	To communicate the cause of a contingency relating to an aircraft that is unable to conduct RVSM operations due to severe turbulence or other severe weather-related phenomenon [or equipment failure, as applicable]. End of new text.

16. RVSM Approval

16.1 Except for State aircraft, operators intending to conduct flights within the volume of airspace specified in 14.1.2 where RVSM is applied shall require an RVSM approval either from the State in which the operator is based or from the State in which the aircraft is registered. To obtain RVSM approval, operators shall satisfy the said State that:

- a) aircraft for which the RVSM approval is sought have the vertical navigation performance capability required for RVSM operations through compliance with criteria of the RVSM minimum aircraft systems performance specifications (MASPS);
- b) they have instituted procedures in respect of continued airworthiness (maintenance and repair) practices and programmes; and they have instituted flight crew procedures for operations in AFI RVSM airspace specified in 14.1.2

Note 1.— An RVSM approval is not restricted to a specific region. Instead, it is valid globally on the understanding that any operating procedures specific to a given region, in this case the AFI Region, should be stated in the operations manual or appropriate crew guidance.

Note 2.— Aircraft that have received State approval for RVSM operations will be referred to as “RVSM approved aircraft”.

Note 3.— Aircraft that have not received State approval for RVSM operations will be referred to as “non-RVSM approved aircraft”.

17. Minimum Aircraft Systems Performance (MASPS)

17.1 The characteristics of total vertical error (TVE) distribution form the basis of the MASPS which were developed to support the introduction of RVSM operations in accordance with agreed global safety standards. The MASPS were designed to ensure that:

a) in respect of groups of aircraft that with respect to all details that could influence the accuracy of height-keeping performance, height-keeping capability shall be such that TVE for the group of aircraft shall have a mean no greater than 25 m (80ft) in magnitude and shall have standard deviation no greater than $92 - 0.004z$ for $0 < z < 0$ where z is the magnitude of the mean TVE in feet or $28 - 0.013z$ for $0 < z < 25$ when z is in metres. In addition, the components of TVE must have the following characteristics:

- 1) the mean altimetry system error (ASE) of the group shall not exceed 25 m (80ft) in magnitude;
- 2) the sum of the absolute value of the mean ASE and of three standard

deviations of ASE shall not exceed 75 m (245 ft); and

3) the differences between cleared flight levels and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with standard deviation no greater than 13.3 m (43.7 ft), and in addition, the decrease in frequency of differences with increasing difference magnitude shall be at least exponential.

b) in respect of a non-group aircraft for which the characteristics of the airframe and altimetry system fit are unique and so cannot be classified as belonging to a group of aircraft, height-keeping performance capability shall be such that the components of the TVE of the aircraft have the following characteristics:

- 1) the ASE of non-group aircraft shall not exceed 60 m (200 ft) in magnitude under all flight conditions; and
- 2) the differences between the cleared flight level and the indicated pressure altitude actually flown shall be symmetric about a mean of 0 m, with a standard deviation no greater than 13.3 m (43.7 ft), and in addition, the decrease in frequency of differences with increasing difference magnitude shall be at least exponential.

17.2 Guidance material of use to those involved in the initial achievement and continued maintenance of the height-keeping performance capability has been issued by ICAO under the title Manual on the Implementation of a 300 m (1,000 ft) Vertical Separation Minimum (VSM) between FL290 and FL410 Inclusive. Detailed technical guidance material on the airworthiness, continued airworthiness, and the operational practices and procedures for AFI airspace is

provided in the Joint Aviation Authorities Administrative and Guidance Material, Section one: General, part 3: Leaflet No. 6

18. RVSM Monitoring

18.1 Adequate monitoring of flight operations in the AFI RVSM airspace shall be conducted to assist in the assessment of continuing compliance of aircraft with the height-keeping capabilities in 17. Monitoring shall include assessment of other sources of risk to ensure that the TLS specified in 19 is not exceeded.

Note.— Details of the policy and procedures for monitoring established by the AFI Monitoring Agency (South Africa) are contained in the Guidance Material on the Implementation of a 300 m (1000 ft) Vertical Separation Minimum (VSM) for Application in the AFI Region are contained in ICAO Doc 9574 and other appropriate documentations on the subject.

19. Target level of safety (TLS)

19.1 Application of RVSM in the airspace designated in 6.3.1.1 shall meet a TLS of 5×10^{-9} fatal accidents per aircraft flight hour due to all causes of risk in the vertical dimension.

21. ~~Wake turbulence procedures~~

~~21.1 The following special procedures are applicable to mitigate wake turbulence encounters in the airspace where RVSM is applied.~~

~~21.2 An aircraft that encounters wake turbulence should notify air traffic control (ATC) and request a revised clearance. However, in situations where a revised clearance is not possible or practicable:~~

- ~~a) the pilot should establish contact with other aircraft, if possible, on the~~

~~appropriate VHF inter-pilot air to air frequency; and~~

- ~~b) one (or both) aircraft may initiate lateral offset(s) not to exceed 2 NM from the assigned route(s) or track(s), provided that:~~

~~as soon as it is practicable to do so, the offsetting aircraft notify ATC that temporary lateral offset action has been taken and specify the reason for doing so; an the offsetting aircraft notify ATC when re-established on assigned route(s) or track(s).~~

~~*Note.— In the contingency circumstances above, ATC will not issue clearances for lateral offsets and will not normally respond to action taken by pilots.*~~

20. Special procedures for strategic lateral offsets in Oceanic Controlled Area (OCA) and remote continental airspace within AFI Region

Note. — The following incorporates lateral offset procedures for both the mitigation of the increasing lateral overlap probability due to increased navigation accuracy, and wake turbulence encounters.

20.1 The use of highly accurate navigation systems (such as the global navigation satellite system (GNSS)) by an increasing proportion of the aircraft population has had the effect of reducing the magnitude of lateral deviations from the route centre line and consequently increasing the probability of a collision should a loss of vertical separation between aircraft on the same route occur.

20.2 The application of lateral offsets to provide lateral spacing between aircraft, in accordance with the procedures specified in 20.3 and 20.4, can be used to mitigate the effect of this reduction in random lateral deviations, thereby improving overall system safety.

Implementation considerations for ATS authorities

20.3 The application of lateral offsets requires authorization from the ATS authority responsible for the airspace concerned. The following considerations shall be taken into account by the ATS authority when planning authorization of the use of strategic lateral offsets in a particular airspace:

- a) Strategic lateral offsets shall only be authorized in en-route oceanic or remote continental airspace. Where part of the airspace in question is within radar coverage, transiting aircraft should normally be allowed to initiate or continue offset tracking.
- b) Strategic lateral offsets may be authorized for the following types of routes (including where routes or route systems intersect):
 - 1) uni-directional and bi-directional routes; and
 - 2) parallel route systems where the spacing between route centre lines is not less than 55.5km (30 NM).
- c) In some instances it may be necessary to impose restrictions on the use of strategic lateral offsets, e.g. where their application may be inappropriate for reasons related to obstacle clearance.
- d) These offset procedures should be implemented

on a regional basis after coordination between all States involved.

- e) The routes or airspace where application of strategic lateral offsets is authorized, and the procedures to be followed by pilots, shall be promulgated in aeronautical information publications (AIPs).
- f) Air traffic controllers shall be made aware of the airspace within which strategic lateral offsets are authorized.

Lateral offset procedures to be applied by pilots

20.4 In the application of strategic lateral offsets, pilots should take the following points into consideration:

- a) Offsets shall only be applied in airspace where this has been approved by the appropriate ATS authority.
- b) Offsets shall be applied only by aircraft with automatic offset tracking capability.
- c) The decision to apply a strategic lateral offset is the responsibility of the flight crew.
- d) The offset shall be established at a distance of one or two nautical miles to the right of the

centre line relative to the direction of flight.

- e) The strategic lateral offset procedure has been designed to include offsets to mitigate the effects of wake turbulence of preceding aircraft. If wake turbulence needs to be avoided, one of the three available options (centreline, 1 NM or 2 NM right offset) shall be used.
- f) In airspace where the use of lateral offsets has been authorized, pilots are not required to inform air traffic control (ATC) that an offset is being applied.
- g) Aircraft transiting areas of radar coverage in airspace where offset tracking is permitted may initiate or continue an offset.

20.5 Pilots may, if necessary, contact other aircraft on the air-to-air frequency 123.45 MHz to coordinate offsets.

c) Proposer's reason for amendment:

Implementation of Reduced Vertical Separation Minimum (RVSM) in the AFI Region. The reduction in vertical separation will improve the provision of air traffic services in the areas concerned and is in line with the implementation strategy adopted in the AFI CNS/ATM implementation plan. This will improve ATC efficiency and airspace capacity.

d) Proposed implementation date of the amendment:

Upon approval by Council.

e) Proposal has been circulated to the following States and International Organizations:

Afghanistan	Cape Verde	Ethiopia	Japan
Algeria	Central African Republic	Finland	Jordan
Angola	Chad	France	Kenya
Argentina	Chile	Gabon	Kuwait
Armenia	China	Gambia	Lebanon
Australia	Colombia	Germany	Lesotho
Austria	Congo	Ghana	Libyan Arab Jamahiriya
Bahrain	Comoros	Greece	Liberia
Bangladesh	Cote d'Ivoire	Guinea	Luxembourg
Belarus	Croatia	Guinea Bissau	Madagascar
Belgium	Cuba	Hungary	Malawi
Benin	Cyprus	Iceland	Malaysia
Bosnia and Herzegovina	Czech Republic	India	Maldives
Botswana	Democratic Republic of Congo	Indonesia	Mali
Brazil	Democratic Peoples' Republic of Korea	Iran, Islamic Republic of	Malta
Bulgaria	Denmark	Iraq	Mauritania
Burkina Faso	Djibouti	Ireland	Mauritius
Burundi	Egypt	Israel	Mexico
Cameroon	Equatorial Guinea	Italy	Morocco
Canada	Eritrea	Jamaica	Mozambique

Namibia	Sweden
Netherlands	Switzerland
New Zealand	Syrian Arab Republic
Niger	Thailand
Nigeria	The former Yugoslav Republic of Macedonia
Norway	Togo
Oman	Tunisia
Pakistan	Turkey
Philippines	Uganda
Poland	United Arab Emirates
Portugal	United Kingdom
Qatar	United Republic of Tanzania
Republic of Korea	United States
Romania	Uruguay
Rwanda	Viet Nam
Russian Federation	Yemen
Sao Tome and Principe	Zambia
Saudi Arabia	Zimbabwe
Senegal	ASECNA
Seychelles	IATA
Sierra Leone	IFALPA
Singapore	
Slovakia	
Slovenia	
Somalia	
South Africa	
Spain	
Sri Lanka	
Sudan	
Swaziland	

f) Secretariat comments

- a) This amendment proposal has been developed within the framework of the APIRG/12, 13 and 14 Meetings Conclusions/Decisions 12/66, 13/58 and 14/21 respectively concerning the planning and evolutionary implementation of RVSM in the AFI Region.
 - b) Implementation of RVSM in the AFI Region would enable aircraft operating in the AFI RVSM airspace to continue under RVSM in EUR/NAT, MID/ASIA, CAR/SAM and ASIA/PAC RVSM airspaces, thereby enhancing the efficiency of seamless flight operations.
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Table AIS 3 – Tableau AIS 3 – Tabla AIS 3

**DESIGNATED INTERNATIONAL NOTAM OFFICES (NOF)
IN THE AFI REGION**

**BUREAU NOTAM INTERNATIONAUX (NOF) DESIGNES
POUR LA REGION AFI**

**OFICINAS NOTAM INTERNACIONALES (NOF) DESIGNADAS
PARA LA REGIONE AFI**

NOF	Areas of responsibility by FIR Zones de responsabilité par FIR Zonas de responsabilidad por FIR	Remarks Rémarques observaciones
Accra	Accra	
Addis Ababa	Addis Ababa	
Alger	Alger	
Antananarivo	Antananarivo	
Asmara	Asmara	
Brazzaville	Brazzaville	
Bujumbura	Bujumbura	
Cairo	Cairo	
Casablanca	Casablanca	
Dakar	Dakar, Dakar Oceanic, Niamey	
Dar-es-Salaam	Dar-es-Salaam	
Entebbe	Entebbe	
Freetown	Roberts	
Gaborone	Gaborone	
Harare	Harare	
Johannesburg	Bloemfontein, Capetown, Durban, Johannesburg, Johannesburg Oceanic, Port Elizabeth, Windhoek	
Khartoum	Khartoum	
Kigali	Kigali	
Kinshasa	Kinshasa	
Lagos	Kano	
Lilongwe	Lilongwe	
Luanda	Luanda	

NOF	Areas of responsibility by FIR Zones de responsabilité par FIR Zonas de responsabilidad por FIR	Remarks Rémarques observaciones
Lusaka	Lusaka	
Madrid	Canarias	
Mahe	Seychelles	
Manzini	Swaziland (within Johannesburg FIR)	
Maputo	Beira	
Maseru	Lesotho (within Bloemfontein FIR)	
Mogadishu	Mogadishu	
Nairobi	Nairobi	
Plaisance	Mauritius	
Sal	Sal Oceanic	
Tripoli	Tripoli	
Tunis	Tunis	
Windhoek	Windhoek	

STATUS OF IMPLEMENTATION – AIP (ANNEX 15, 4.1.1)						
	EDITION	GEN	ENR	AD	LAST AMENDMENT (NO/YEAR)	REMARKS
Angola	2001	√	√	√	-	AIP NEW FORMAT
Botswana	1998	√	√	√	2/99	“
Burundi	2001	√	√	√	-	“
Comoros	-	X	X	X	-	AIP NOT PUBLISHED
Djibouti	1996	X	X	X	2/87	OUTDATED AIP
Eritrea	1996	√	√	√	2/00	AIP NEW FORMAT
Ethiopia	1996	√	√	√	1/00	“
Kenya	2002	√	√	√	-	“
Lesotho	1987	X	X	X	3/88	OUTDATED AIP
Madagascar	-	√	√	√	-	AIP NEW FORMAT
Malawi	1977	X	X	X	69/89	OUTDATED AIP
Mauritius	1997	√	√	√	2/00	AIP NEW FORMAT
Mozambique	1987	X	X	X	104/88	OUTDATED AIP
Namibia	1999	√	√	√	-	AIP NEW FORMAT
Réunion (France)	-	√	√	√	-	AIP NEW FORMAT
Rwanda	1982	X	X	X	5/89	OUTDATED AIP

STATUS OF IMPLEMENTATION – AIP (ANNEX 15, 4.1.1)						
	EDITION	GEN	ENR	AD	LAST AMENDMENT (NO/YEAR)	REMARKS
Seychelles	1996	√	√	√	1/00	AIP NEW FORMAT
Somalia	1978	X	X	X	3/86	OUTDATED AIP
South Africa	-	√	√	√	-	AIP NEW FORMAT
Swaziland	2000	√	√	√	-	“
Tanzania	2002	√	√	√	7/02	“
Uganda	1997	√	√	√	2/00	“
Zambia	1996	X	X	X	41/86	OUTDATED AIP
Zimbabwe	1999	√	√	√	1/02	AIP NEW FORMAT

Note: √ means available
X means not available

State/Territory Etat/ Territoire	AIP	AIP AMENDMENT			AIP SUPPLEMENT			AIC	NOTAM				AIRAC		REMARKS OBSERVACIONES
		REG	AIRAC	NIL	REG	AIRAC	NIL		REG	TRIGGER DECLENCHEU R	CHKLIST LISTE DE CONTRÔLE	SUMMARY SOMMAIRE	REG	NIL	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BURKINA FASO	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
CAMEROON	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
CAPE VERDE	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
CENTRAL AFRICAN REPUBLIC	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
CHAD	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
COMOROS	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
CONGO	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
CONGO (RDC)	X	N	N	N	N	N	N	X	X	X	X	X	X	X	
COTE D'IVOIRE	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
EQUATORIAL GUINEA	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
GABON	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
GAMBIA	X	X	X	N	X	N	N	X	X	X	X	X	X	X	
GHANA	X	N	X	N	X	N	N	X	X	X	X	X	X	X	
GUINEA	X	N	X	N	X	N	N	X	X	X	X	X	X	X	
GUINEA-BISSAU	N	N	N	N	X	N	N	X	X	X	X	X	X	X	
LIBERIA	X	N	N	N	X	N	N	X	X	X	X	X	X	X	
MALI	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
MAURITANIA	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
NIGER	X	X	X	N	X	X	N	X	X	X	X	X	X	X	
NIGERIA	X	N	N	X	X	X	X	X	X	X	X	X	X	X	
SAO TOME & PRINCIPE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
SENEGAL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
SIERRA LEONE	X	N	N	X	X	X	X	X	X	X	X	X	X	X	
TOGO	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

Principles Governing Introduction of AIS Automation in AFI Region

- a) each participating State, in developing its National AIS System Centre (NASC), should closely co-operate in adopting the different elements that will make up an integrated AFI region automated AIS system while taking into account its current and planned degree of development;
- b) States, which have not yet done so, should initially automate NOTAM service within their own AIS while taking into account the users requirements;
- c) optimum use should be made of available communication and public networks as well as of new communication technology for the dissemination, exchange and retrieval of aeronautical information, particularly NOTAM;
- d) ICAO NOTAM Format which contains necessary qualifiers needed to facilitate storing, sorting and retrieval of NOTAM information should be exclusively used;
- e) common, "user friendly", query procedures for the interrogation of AIS or NOTAM databases should be used. These procedures should be in accordance with the different levels of users requirements;
- f) States must establish quality system and procedures which will ensure that the available aeronautical information is of appropriate quality (accuracy, resolution, integrity and timeliness);
- g) Any State, which decides not to automate its AIS may arrange, in the interest of improved efficiency, on the basis of bi- or multi-lateral agreements between States or other non-governmental organization, for the provision of automated services on its behalf. The arrangement must take into account the non-transferable responsibility of States for the provision of aeronautical information as well as other technical and administrative aspects associated with such arrangement.



**INTERNATIONAL CIVIL AVIATION ORGANIZATION
WESTERN AND CENTRAL AFRICAN OFFICE**

**QUESTIONNAIRE DE MESURE DE
SATISFACTION CLIENT**

Dans le cadre de la mise en place d'un système de management de la qualité conformément à la norme internationale (ISO 9001/Version 2000) et pour être à l'écoute de ses clients, le SIA (**ETAT**) sollicite les usagers de l'air de bien vouloir répondre au questionnaire ci-joint.

A la lumière de vos réponses, le SIA (**ETAT**) entreprendra les actions d'amélioration qui s'imposent pour satisfaire ses clients.

N.B : Les réponses peuvent parvenir au SIA par :

**QUESTIONNAIRE OF MEASURING
CUSTOMER SATISFACTION**

As part of setting up a quality management system in compliance with the international standard (ISO 9001/version 2000), and in order to attentive to the needs of its customers, Air users are kindly requested by (**STATE**) AIS to answer the herewith attached questionnaire.

According to your answers, (**STATE**) AIS will undertake improvement actions that are essential to satisfy its customers.

N.B : Answers are to be forwarded to AIS by :

FIN/END

cette circulaire comporte 1 page+ 1 annexe /
This AIC includes 1 page+1 annex



INTERNATIONAL CIVIL AVIATION ORGANIZATION
WESTERN AND CENTRAL AFRICAN OFFICE

QUESTIONNAIRE DE MESURE DE SATISFACTION CLIENT /

QUESTIONNAIRE OF MEASURING CUSTOMER SATISFACTION

Date : / /2005

Organisme / Organism :

Personne de contact / Person of contact :

Prière de mettre une croix dans la case appropriée / Please to put a cross in the puts fitting.

	1	2	3	4
Degré d'importance/ Degree of importance	Peu important / Not very important	Moyennement important / Fairly important	Important / important	Très important / Very important
Degré de satisfaction/ Degree of satisfaction	Peu satisfaisant/ Not very satisfactory	Moyennement satisfaisant/ Fairly satisfactory	Satisfaisant/ Satisfactory	Très satisfaisant/ Very satisfactory

Service d'Information Aéronautique/Aeronautical Information Service

1/ AIP, SUP AIP et/and AIC :

Degré d'importance / Degree of importance				CRITERES / CRITERIONS	Degré de satisfaction/ Degree of satisfaction			
1	2	3	4		1	2	3	4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Degré de conformité de l'AIP (STATE) avec les SARP de l'OACI / Degree of (STATE) AIP compliance with ICAO SARP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Suffisance de l'information aéronautique publiée par AIP, SUP AIP et AIC / Sufficiency of the published aeronautical information (AIP, SUP AIP and AIC).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Exactitude de l'information aéronautique publiée par AIP, SUP AIP et AIC / Accuracy of the published aeronautical information AIP, SUP AIP and AIC).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	La fréquence de publication d'amendement d'AIP / Frequency of AIP amendment publication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Nombre de corrections manuscrites figurant dans l'AIP (ETAT) Number of handwritten corrections appearing in (STATE) AIP.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Degré de compréhension du texte de l'AIP (ETAT) Degree of comprehension of (STATE) AIP text.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualité des cartes aéronautiques / Quality of the aeronautical Charts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2/ Publication sur support papier / Publication on paper support :

Degré d'importance / Degree of importance				CRITERES / CRITERIONS	Degré de satisfaction/ Degree of satisfaction			
1 	2 	3 	4 		1 	2 	3 	4 
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	La qualité du papier utilisé pour l'impression des amendements d'AIP, suppléments d'AIP, AIC et listes des NOTAM valides / <i>Quality of paper used for AIP AMDT, SUP AIP, AIC and list of valid NOTAM.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Délais de réception des amendements AIP, SUP AIP, AIC par courrier / <i>Receiving delay of AIP AMDT, SUP AIP and AIC by mail.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualité de l'emballage / <i>Package quality.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prix des publications d'information aéronautique / <i>Price of the aeronautical information publications.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Modalités de règlement des factures d'achat des publications / <i>Regulation terms of buying invoices of publication.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3/ Publication sur CD ROM / Publication on CD ROM :

Degré d'importance / Degree of importance				CRITERES / CRITERIONS	Degré de satisfaction/ Degree of satisfaction			
1 	2 	3 	4 		1 	2 	3 	4 
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fréquence de la mise à jour du CD-ROM renfermant les éléments du système intégré d'information aéronautique / <i>Frequency of up-dating of CD-ROM including Integrated Aeronautical Information Package.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Facilité de l'usage du CD ROM / <i>Easiness of the use of CD-ROM.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Prix du CD ROM / <i>Price of CD-ROM.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Modalités de règlement / <i>Regulation terms.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4/ NOTAM :

Degré d'importance / Degree of importance				CRITERES / CRITERIONS	Degré de satisfaction/ Degree of satisfaction			
1 	2 	3 	4 		1 	2 	3 	4 
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Degré de conformité des NOTAM (ETAT) avec les SARP de l'OACI/ <i>Degree of (STATE)n NOTAM compliance with ICAO SARP.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Annulation ou remplacement à temps des NOTAM "EST" / <i>Cancelling or replacement in time of NOTAM "EST".</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Degré de compréhension des textes des NOTAM (ETAT) / <i>Comprehension of (STATE) NOTAM language.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Suffisance de l'information aéronautique publiée par NOTAM / <i>Sufficiency of the aeronautical information published by NOTAM.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Exactitude de l'information aéronautique publiée par NOTAM / <i>Accuracy of the aeronautical information published by NOTAM.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Utilisation des codes et abréviations de l'OACI pour la diffusion des NOTAM /	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

				<i>Use of ICAO Codes and Abbreviations for NOTAM distribution.</i>				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Délais de réception des NOTAM pour être exploités/ <i>Delay of reception of NOTAM to be exploited.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Délais d'incorporation par amendement des informations publiées par NOTAM dans l'AIP / <i>Delay of incorporation by amendment of information published by NOTAM in the AIP.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	La production de PIB par le SIA en cas de nécessité / <i>The production of PIB published by (STATE)n AIS in case of necessity.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5/ Information diffusée sur Internet / Information broadcast on Internet :

Degré d'importance / <i>Degree of importance</i>				CRITERES / <i>CRITERIONS</i>	Degré de satisfaction/ <i>Degree of satisfaction</i>			
1 	2 	3 	4 		1 	2 	3 	4 
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualité de la rubrique Service de l'Information Aéronautique du Site Web de l'Office de l'Aviation Civile et des Aéroports (OACA) www.oaca.----- / <i>Quality of Item Aeronautical Information Service within the "Office de l'Aviation Civile et des Aéroports" OACA) Web Site (www.oaca.-----).</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L'information diffusée par le SIA (ETAT) via le Forum AGORA AIS / <i>Information published by (STATE) AIS through the AGORA AIS Forum.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Facilité de l'usage de la rubrique Service de l'Information Aéronautique du Site Web / <i>Easiness of the use of the Item Aeronautical Information Service in the Web-Site.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L'élément NOTAM sous la rubrique Service de l'Information Aéronautique du Site Web de l'Office de l'Aviation Civile et des Aéroports (OACA) / <i>The NOTAM element under item Aeronautical Information Service within the "Office de l'Aviation Civile et des Aéroports" OACA) Web-Site.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3/ Generalités / Generalities:

Degré d'importance / <i>Degree of importance</i>				CRITERES / <i>CRITERIONS</i>	Degré de satisfaction/ <i>Degree of satisfaction</i>			
1 	2 	3 	4 		1 	2 	3 	4 
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gestions des réclamations et suggestions des clients / <i>Managements of claims and customers' suggestions.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualité de l'affichage mural des informations/ <i>Quality of the wall billing of information.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communication avec les clients / <i>Communication with the customers.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Vos commentaries / Your comments:

Vos suggestions : Your suggestions

Bureau d'Information Aéronautique (BIA)/AIS Briefing Office

1/ AIP, SUP AIP et AIC de (STATE) et de l'étranger : (STATE)n and foreign AIP, SUP AIP and AIC :

Degré d'importance / Degree of importance				CRITERES / CRITERIONS	Degré de satisfaction/ Degree of satisfaction			
1 	2 	3 	4 		1 	2 	3 	4 
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disponibilité des documents dans les BIA/ Availability of documents in Aerodrome AIS Office	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Etat des documents/ Keeping of documents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Présentation des documents/ Presentation of documents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mise à jour des documents/ Up-dating of documents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2/ PIB :

Degré d'importance / Degree of importance				CRITERES / CRITERIONS	Degré de satisfaction/ Degree of satisfaction			
1 	2 	3 	4 		1 	2 	3 	4 
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temps de réponse aux demandes d'établissement de Time of answer to requests of establishment of PIB.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conformité du PIB à la demande Conformity of the PIB with request.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Présentation du PIB/ Presentation of PIB.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	La qualité du papier utilisé pour l'impression du PIB/ The quality of the paper used for the impression of the PIB.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6/ Generalités / Generalities:

Degré d'importance / Degree of importance				CRITERES / CRITERIONS	Degré de satisfaction/ Degree of satisfaction			
1 	2 	3 	4 		1 	2 	3 	4 
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Gestions des réclamations et suggestions des clients / Managements of claims and customers' suggestions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Temps de réponse SIA aux demandes des clients / Time of answer of the AIS to requests of customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Communication avec les clients / Communication with the customers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Vos commentaries / Your comments:

Vos suggestions : Your suggestions

The AIS/MAP Task Force Terms of Reference and Composition

1. Terms of Reference

1.1 The AIS/MAP Task Force was established within the framework of the ATS/AIS/SAR Sub-Group (AFI/7 Rec.12/39) in order to develop a cohesive Air Navigation plan concerning AIS/MAP for the AFI Region, taking into account the following principles:

- a) each participating State, in developing its National AIS System Centre (NASC), should closely co-operate in adopting the different elements that will make up an integrated AFI region automated AIS system while taking into account its current and planned degree of development;
- b) States, which have not yet done so, should initially automate NOTAM service within their own AIS while taking into account the users requirements;
- c) Optimum use should be made of available communication and public networks as well as of new communication technology for the dissemination, exchange and retrieval of aeronautical information, particularly NOTAM;
- d) ICAO NOTAM Format which contains necessary qualifiers needed to facilitate storing, sorting and retrieval of NOTAM information should be exclusively used;
- e) common, "user friendly", query procedures for the interrogation of AIS or NOTAM databases should be used. These procedures should be in accordance with the different levels of users requirements;
- f) States must establish quality system and procedures which will ensure that the available aeronautical information is of appropriate quality (accuracy, resolution, integrity and timeliness);
- g) Any State, unable to meet the AIS/MAP requirements, may arrange, in the interest of improved efficiency, on the basis of bi- or multi-lateral agreements between States or other non-governmental organization, for the provision of automated services on its behalf. The arrangement must take into account the non-transferable responsibility of States for the provision of aeronautical information as well as other technical and administrative aspects associated with such arrangement.

Composition of The Task Force

1. Algeria
2. ASECNA
3. Egypt
4. Kenya
5. IATA
6. Morocco
7. Nigeria
8. South Africa
9. Tanzania
10. Tunisia
11. Zimbabwe

**TABLE CNS 1B - ATS DIRECT SPEECH CIRCUITS PLAN/Status of implementation
EXPLANATION OF THE TABLE**

Column 1:	Terminal I:	State and ATS centres to be considered are sequenced in alphabetical order.
Column 2:	Terminal II:	Stations to be connected in alphabetical order.
Column 3:	Type: “A”	indicates a requirement for direct-speech communications capable of establishment in less than 15 seconds (to be used principally for the exchange of updated flight plan data with adjacent units and for co-ordination between air traffic controllers).
	“d”	indicates a requirement for communications which effectively provide for immediate access between controllers (to be used principally for transfer of control between radar controllers).
Column 4:	Status of implementation:	
	NI:	Not implemented
	D:	Implemented with deficiency
	OP:	Implemented and operates satisfactorily

Column 5: Remarks

TABLEAU CNS 1B DES CIRCUITS ATS EN PHONIE DIRECTE/Etat de mise en oeuvre

EXPLICATION DU TABLEAU

Colonne 1 :	Terminal I	États et centres ATS à prendre en considération énumérés par ordre alphabétique.
Colonne 2 :	Terminal II:	Les stations qui doivent être reliées sont classées par ordre alphabétique.
Colonne 3 :	Type : “A”	Indique un besoin de communications en phonie directe pouvant être établies en moins de 15 secondes (ces communications servent principalement à l’échange de données actualisées de plan de vol avec les organes voisins ainsi qu’à la coordination entre contrôleurs de la circulation aérienne).
	“d”	indique un besoin de communications instantanées, assurant un accès immédiat entre contrôleurs (principalement pour le transfert de contrôle entre contrôleurs radar).
Colonne 4 :	État de mise en oeuvre:	
	NI:	Non mis en oeuvre
	D:	Mis en oeuvre mais déficient
	OP:	Mis en oeuvre et fonctionne correctement
Colonne 5:	Remarques	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
ALGERIA ALGER ACC-FIC	BARCELONA	A	OP	VSAT implemented. VSAT implemented. To implement LTF circuit
	CASABLANCA	A	OP	
	DAKAR	A	OP	
	MARSEILLE	A	OP	
	NIAMEY	A	OP	
	TRIPOLI	A	NI	
	TUNIS	A	OP	
ANGOLA LUANDA APP-FIC	<u>ABIDJAN</u> ACCRA	A	NI	<u>NEW Circuit</u>
	ATLANTICO	A	NI	
	BRAZZAVILLE	A	NI	
	GABORONE	A	OP	
	JOHANNESBURG	A	OP	
	KINSHASA	A	OP	
	LUSAKA	A	OP	
	WINDHOEK	A	OP	
BENIN COTONOU	ACCRA	A	OP	NEW VSAT implemented NEW VSAT implemented
	LAGOS	A	OP	
	LOME	A	OP	
BOTSWANA GABORONE ACC FRANCISTOWN TWR	FRANCISTOWN HARARE	A A	OP OP	
	JOHANNESBURG	A	OP	
	LUANDA	A	OP	
	LUSAKA	A	OP	
	WINDHOEK	A	OP	
	BULAWAYO	A	NI	
	GABORONE	A	OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
BURKINA FASO BOBO DIOULASSO APP	ABIDJAN	A	OP	VSAT being considered
	ACCRA	A	NI	
BAMAKO	A	OP		
OUAGADOUGOU	A	OP		
OUAGADOUGOU APP	ABIDJAN	A	OP	VSAT being considered
	ACCRA	A	NI	
	BAMAKO	A	OP	
	BOBO DIOULASSO	A	OP	
	NIAMEY	A	OP	
	NIAMTOUGOU	A	NI	
BURUNDI BUJUMBURA APP	DAR-ES-SALAAM	A	OP	
	GOMA	A	NI	
	KIGALI	A	OP	
	KINSHASA	A	NI	
CAMEROON DOUALA APP	BATA	A	NI	To improve maintenance To improve maintenance To improve maintenance
	BRAZZAVILLE	A	OP	
	KANO	A	D	
	LAGOS	A	D	
	LIBREVILLE	A	OP	
	MALABO	A	D	
	N'DJAMENA	A	OP	
CAPE VERDE SAL ACC	DAKAR	A	OP	
	LAS PALMAS	A	OP	
	SANTA MARIA	A	OP	
CENTRAL AFRICAN REPUBLIC BANGUI APP	BRAZZAVILLE	A	OP	
	GBADOLITE	A	NI	
	N'DJAMENA	A	OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
CHAD N'DJAMENA APP/FIC	BANGUI BRAZZAVILLE DOUALA GAROUA KANO KHARTOUM MAIDUGURI NIAMEY TRIPOLI	A A A A A A A A A	OP OP OP OP D NI D OP NI	To improve maintenance To improve maintenance
COMOROS DZAOUDZI APP	ANTANANARIVO	A	OP	
MORONI APP	ANTANANARIVO	A	OP	
CONGO BRAZZAVILLE APP-FIC	ACCRA BANGUI DOUALA KANO KHARTOUM KINSHASA LIBREVILLE LUANDA N'DJAMENA SAO TOME	A A A A A d A A A A	D OP OP D NI OP OP NI OP NI	To improve maintenance To improve maintenance
COTE D'IVOIRE ABIDJAN APP	ACCRA BAMAKO BOBO DILOUSSO DAKAR <u>LUANDA</u> NIAMEY OUAGADOUGOU ROBERTSFIELD	d A A A A A A A	D OP OP D OP OP OP	To improve maintenance To improve maintenance <u>New Circuit</u>

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
DJIBOUTI DJIBOUTI APP	ADDIS ABABA	A	OP	Via Addis Ababa
	ASMARA	A	OP	
	DIRE DAWA	A	OP	
	HARGHEISA	A	NI	
	MOGADISHU	A	OP	
	SANA'A	A	OP	
D.R of CONGO BUKAVU GBADOLITE GOMA LUBUMBASHI APP KINSHASA APP/FIC	KIGALI	A	NI	
	BANGUI	A	NI	
	BUJUMBURA	A	NI	
	KIGALI	A	NI	
	NDOLA	A	NI	
	BRAZZAVILLE	d	OP	
	BUJUMBURA	A	NI	
	DAR-ES-SALAAM	A	OP	
	ENTEBBE	A	NI	
	KHARTOUM	A	NI	
KIGALI	A	NI		
LUANDA	A	OP		
LUSAKA	A	OP		
EGYPT CAIRO ACC	AMMAN	A	OP	
	ATHENS	A	OP	
	BEIRUT	A	OP	
	JEDDAH	A	OP	
	KHARTOUM	A	NI	
	NICOSIA	A	OP	
	TEL AVIV	A	OP	
	TRIPOLI	A	OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
EQUATORIAL GUINEA				
BATA	DOUALA	A	NI	
APP	LIBREVILLE	A	NI	
	MALABO	A	NI	
MALABO	BATA	A	NI	
APP	DOUALA	A	OP	
	LIBREVILLE	A	OP	Implemented via Douala
ERITREA				
ASMARA	ADDIS ABABA	A	NI	
ACC/FIC	DJIBOUTI	A	OP	
	JEDDAH	A	OP	
	KHARTOUM	A	OP	
	SANA'A	A	OP	
ETHIOPIA				
ADDIS ABABA	ASMARA	A	NI	
ACC/FIC	DJIBOUTI	A	OP	
	JEDDAH	A	OP	
	KHARTOUM	A	OP	
	MOGADISHU	A	OP	
	NAIROBI	A	OP	
	SANA'A	A	OP	
DIRE DAWA TWR	DJIBOUTI	A	OP	Via Addis Ababa
FRANCE (REUNION)				
SAINT-DENIS	ANTANANARIVO	A	OP	
APP	MAURITIUS	A	OP	
GABON				
LIBREVILLE	ACCRA	A	OP	
ACC	BATA	A	NI	
	BRAZZAVILLE	A	OP	
	DOUALA	A	D	To improve maintenance
	KANO	A	OP	
	LAGOS	A	D	To improve maintenance
	MALABO	A	OP	Implemented via Douala
	SAO TOME	A	NI	VSAT being considered

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
GAMBIA BANJUL APP	BISSAU DAKAR	A A	NI OP	VSAT being considered
GHANA ACCRA APP/FIC	ABIDJAN BOBO DIOULASSO BRAZZAVILLE COTONOU KANO LAGOS LIBREVILLE LOME LUANDA NIAMEY NIAMTOUGOU OUAGADOUGOU SAO TOME	d A A A A d A A A A A A A	D NI D OP OP OP D OP NI OP OP NI	To improve maintenance To improve maintenance New VSAT implemented To improve maintenance New VSAT implemented New VSAT implemented VSAT being considered New VSAT being installed
GUINEA CONAKRY APP/FIC	<u>ABIDJAN</u> <u>BAMAKO</u> BISSAU DAKAR FREETOWN ROBERTSFIELD	A A A A	NI OP OP OP	<u>New Circuit</u> <u>New Circuit</u> Amendment for addition
GUINEA-BISSAU BISSAU APP	BANJUL CONAKRY DAKAR	A A A	NI NI NI	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
KENYA MOMBASA APP NAIROBI ACC/FIC	DAR-ES-SALAAM	d	OP	
	KILIMANJARO	A	OP	
	NAIROBI	A	OP	
	ADDIS ABABA	A	OP	
	DAR-ES-SALAAM	A	OP	
	ENTEBBE	A	OP	
	KHARTOUM	A	OP	
	KILIMANJARO	d	OP	
	MOGADISHU	A	OP	
	MOMBASA	A	OP	
SEYCHELLES	A	OP		
LESOTHO MASERU APP	BLOEMFONTEIN	A	OP	
LIBERIA ROBERTSFIELD APP	ABIDJAN	A	OP	Operated from Conakry
	BAMAKO	A	OP	Operated from Conakry
	CONAKRY	A	OP	
	DAKAR	A	NI	Amendment for deletion
	FREETOWN	A	OP	
LIBYAN ARAB JAMAHIRIA BENGHAZI APP TRIPOLI ACC/FIC	ATHENS	A	OP	
	MALTA	A	OP	
	ALGIERS	A	NI	
	CAIRO	A	OP	
	KHARTOUM	A	NI	
	MALTA	A	OP	
	N'DJAMENA	A	NI	
	NIAMEY	A	NI	
	TUNIS	A	OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
MADAGASCAR ANTANANARIVO ACC/FIC	BEIRA	A	OP	
	DAR-ES-SALAAM	A	OP	
	DZAOUZU	A	OP	
	JOHANNESBURG	A	OP	
	MAURITIUS	A	OP	
	MORONI	A	OP	
	SAINT-DENIS	A	OP	
	SEYCHELLES	A	OP	
MALAWI LILONGWE ACC/FIC	BEIRA	A	OP	
	DAR-ES-SALAAM	A	OP	
	HARARE	A	OP	
	LUSAKA	A	OP	
MALI BAMAKO APP	ABIDJAN	A	OP	To implement LTF circuit
	BOBO DIULASSO	A	OP	
	DAKAR	A	OP	
	GAO	A	NI	
	MOPTI	A	NI	
	OUAGADOUGOU	A	OP	
	ROBERTSFIELD	A	NI	
	BAMAKO	A	NI	
	MOPTI	A	NI	
	NIAMEY	A	NI	
GAO APP	BAMAKO	A	NI	
	MOPTI	A	NI	
MOPTI TWR	GAO	A	NI	
	BAMAKO	A	NI	
MAURITANIA NOUADHIBOU APP	DAKAR	A	OP	Via Nouakchott/Dakar
	LAS PALMAS	A	OP	
	NOUAKCHOTT	A	OP	
NOUAKCHOTT APP	DAKAR	A	OP	
	NOUADHIBOU	A	OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
MAURITIUS MAURITIUS ACC/FIC	ANTANANARIVO BOMBAY COCOS JOHANNESBURG PERTH SAINT-DENIS SEYCHELLES	A A A A A A A	OP OP OP OP OP OP OP	
MOROCCO CASABLANCA ACC/FIC	ALGER DAKAR LAS PALMAS LISBOA SEVILLA VILLA CISNEROS	A A A A A A	OP OP OP OP OP OP	
MOZAMBIQUE BEIRA ACC/FIC	ANTANANARIVO DAR-ES-SALAAM HARARE LILONGWE LUSAKA MAPUTO	A A A A A A	OP OP OP OP OP OP	
MAPUTO APP	BEIRA DURBAN JOHANNESBURG MANZINI	A A A A	OP OP OP OP	
NAMIBIA WINDHOEK ACC/FIC	BLOEMFONTEIN CAPETOWN GABORONE JOHANNESBURG LUANDA	A A A A A	OP OP OP OP OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
NIGER NIAMEY ACC/FIC	ABIDJAN ACCRA ALGER DAKAR GAO KANO N'DJAMENA OUAGADOUGOU TRIPOLI	A A A A A A A A A	OP OP OP OP NI OP OP OP NI	VSAT implemented
NIGERIA KANO ACC/FIC	ACCRA BRAZZAVILLE DOUALA LAGOS LIBREVILLE MAIDUGURI N'DJAMENA NIAMEY	A A A A A A A A	OP OP OP OP OP OP OP OP	
LAGOS ACC	ACCRA COTONOU DOUALA KANO LIBREVILLE NIAMEY	A A A A A A	OP OP OP OP D OP	Newly implemented
MAIDUGURI APP	KANO N'DJAMENA	A A	D D	To improve maintenance To improve maintenance
RWANDA KIGALI APP	BUJUMBURA BUKAVU DAR-ES-SALAAM ENTEBBE GOMA KINSHASA	A A A A A A	OP NI OP OP NI NI	
SAO TOME AND PRINCIPE SAO TOME TWR	ACCRA BRAZZAVILLE LIBREVILLE	A A A	OP NI NI	VSAT installed VSAT planned VSAT planned

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
PORT ELIZABETH	DURBAN JOHANNESBURG	A A	OP OP	
SPAIN LAS PALMAS ACC/FIC	CASABLANCA DAKAR LISBOA NOUADHIBOU SAL SANTA MARIA	A A A A A A	OP OP OP OP OP OP	Via Dakar/Nouakchott
SUDAN KHARTOUM ACC/FIC	ADDIS ABABA ASMARA BRAZZAVILLE CAIRO ENTEBBE JEDDAH KINSHASA NAIROBI N'DJAMENA TRIPOLI	A A A A A A A A A A	OP OP NI NI OP NI NI OP NI NI	
SWAZILAND MANZINI APP	DURBAN JOHANNESBURG MAPUTO	A A A	OP OP OP	
TOGO LOME APP	ACCRA COTONOU NIAMTOUGOU	A A A	OP OP OP	New VSAT implemented
NIAMTOUGOU TWR	ACCRA LOME OUAGADOUGOU	A A A	OP OP NI	New VSAT implemented
TUNISIA TUNIS ACC/FIC	ALGER MALTA MARSEILLE ROMA TRIPOLI	A A A A A	OP OP OP OP OP	

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
UGANDA ENTEBBE ACC/FIC	DAR-ES-SALAAM	A	OP	
	KHARTOUM	A	OP	
	KIGALI	A	OP	
	KINSHASA	A	NI	
	NAIROBI	A	OP	
UNITED REPUBLIC OF TANZANIA DAR-ES-SALAAM ACC/FIC	ANTANANARIVO	A	OP	
	BEIRA	A	OP	
	BUJUMBURA	A	OP	
	ENTEBBE	A	OP	
	KIGALI	A	OP	
	KILIMANJARO	A	OP	
	KINSHASA	A	OP	
	LILONGWE	d	OP	
	LUSAKA	A	OP	
	MOMBASA	A	OP	
	NAIROBI	A	OP	
	SEYCHELLES		OP	
	ZANZIBAR	A	OP	
		A		
KILIMANJARO APP	DAR-ES-SALAAM	A	OP	
	MOMBASA		OP	
	NAIROBI	A	OP	
ZANZIBAR	DAR-ES-SALAAM		OP	
WESTERN SAHARA EL AIOUN	LAS PALMAS	A	NI	
	NOUADHIBOU	A	NI	
DAKHLA				

ATS requirements for speech communications Besoins en communications vocales			Status of implementation/ Etat de mise en oeuvre	Remarks Observations
Terminal I Terminal I	Terminal II Terminal II	Type Type		
1	2	3	4	5
ZAMBIA LUSAKA ACC/FIC NDOLA	BEIRA	A	OP	
	DAR-ES-SALAAM	A	OP	
	GABORONE	A	OP	
	HARARE	A	OP	
	KINSHASA	A	OP	
	LILONGWE	A	OP	
	LUANDA	A	OP	
	NDOLA	A	OP	
	LUBUMBASHI	A	NI	
	LUSAKA	A	OP	
ZIMBABWE BULAWAYO APP HARARE ACC/FIC	FRANCISTOWN	A	NI	
	HARARE	A	OP	
	BEIRA	A	OP	
	BULAWAYO	A	OP	
	GABORONE	A	OP	
	JOHANNESBURG	A	OP	
	LILONGWE	A	OP	
	LUSAKA	A	OP	

AMENDMENT TO THE AFI ATS ROUTE NETWORK
LIST OF NEW ATS ROUTES INCLUDING RNAV ROUTES TO BE ADDED TO
THE ICAO AFI ANP (Doc. 7474)

Serial No;	ROUTE DESIGNATOR	SEGMENT(S)	WEEKLY TRAFFIC	REMARKS
1.	G/UG 745	Johannesburg Nelspruit Maputo		
2.	A/UG 404	Casablanca Niamey	10 flights a week	
3.	A/UG 615	Nouakchott Mopti	to be forwarded	KLM, No objection AF, No objection BA, No objection SA, No objection
4.	A/UG 616	Ripol Kano	to be forwarded -	KLM, No objection AF, No objection BA, No objection SA, No objection -
5.	A/UG 622	Ripol Zinder	to be forwarded -	One way Ripol to Zinder
6.	A/UG 622	Khartoum Ripol	to be forwarded -	One way Khartoum to Ripol to Niamey
7.	A/UG 617	Gamus Ndjamena	to be forwarded -	One way Gamus to Ndjamena
8.	A/UG 619	URSUT Maiduguri	to be forwarded -	One way Ursut to Maiduguri
9.	A/UG 620	Bosso Ndjamena	to be forwarded -	KLM, No objection AF, No objection BA, No objection SA, No objection
10.	A/UG 624	Bangui Garoua	to be forwarded -	KLM, No objection AF, No objection BA, No objection SA, No objection
11.	A/UG 625	Libreville Moros Bangui	to be forwarded -	KLM, No objection AF, No objection BA, No objection SA, No objection -
12.	A/UG 626	Jos Maiduguri	to be forwarded -	One way to Maiduguri

**ATSG8 Report
Appendix K**

Serial No;	ROUTE DESIGNATOR	SEGMENT(S)	WEEKLY TRAFFIC	REMARKS
13.	UG 660	Niamey Gulen Kano Maiduguri Kelak	Ndjamena Geriena El Fasher El Obeid Khartoum Port Sudan	One way Niamey to El - Obeid
14.	UG 660	El Fasher El Obeid	to be forwarded -	One way El Fisher to El Obeid
15.	AF/UG 622	Khartoum RIPOL Niamey	to be forwarded -	One way Khartoum to RIPOL to Niamey
16.	A/UG 627	Ruaca Namibe (VMO) BOSNI	22	Hosea Kutako Int. Airport/Johannesburg Lunda / Accra
17.	A/UG628	ANVAG Lubango (VUB)	16	Hosea Kutako Int. Airport to Johannesburg / Luanda /Accra
18.	A/UG 629	CBA OZT E040.0.WOO4M.O E02200.0 W002 30 Oct GAO Lagos	To be forwarded	
19.	A/UG 402	Gao dct Tye dct Tamanrasset	To be forwarded	
20.	UF 981 (NY)	Gao dct Pot dct Lv	To be forwarded	
21.	A/UG 403	MNA dct Hogar dct Tobouk dct Edara dct FL	To be forwarded	

**ATS ROUTES/SEGMENTS TO BE DELETED FROM THE ICAO AFI
ANP (Doc. 7474)**

ROUTE DESIGNATER	SEGMENT(S)	STATES	REMARKS
UG 852	Bamako/Elgolea	Algeria Mali Niger	a) Low traffic density b) Not strategically separated with UM 108/UB 735 c) All traffic will use UM 108/ UB 735
UG 853	TITOR / AMDIB	Algeria Senegal	Request from IATA
UB 726	Insalah / Niamey	Algeria Niger	a) Algeria, ASECNA, IATA to coordinate and report to ICAO. b) Low density traffic, not strategically separated with UM 608. All traffic will use UM 608
UA 615	Tamanraset / Kano	Algeria Niger Nigeria	a) Usually closed during Haj period. b) Not separated with UM 604 c) Low traffic density d) All traffic to use UA 604 e) Algeria agreed, Nigeria to report to ICAO within a week
UR 986	Kano / Tobuk	Niger Nigeria	a) No traffic b) Usually closed during Haj c) Major airlines have no objection
UA 605	Djanet/Inisa	Algeria Chad Niger	Due to : a) Implementation RNAV routes UM 998 and UM 731 b) UA605 usually closed during Haj To be coordinated by Algeria, ASECNA & IATA
UW 500	Maiduguri / Bangui	Nigeria Cameroon Congo	a) Low Traffic density b) Traffic to and from Bangui will use UW 400
UA 620	Ndjamena / KIMTA	Chad	Low density of traffic

Routes in the ICAO AFI ANP (DOC 7474) to be realigned

ATS Route	SEGMENT(S)	PROPOSED REALIGNMENT	JUSTIFICATION/ REMARKS
UM731	Johannesburg	Johannesburg	More Direct RNAV Route
	Saurimo	Saurimo	
	Berberati		
	Ndjamena	Ndjamena	
UM998	Gaborone	Gaborone	More direct RNAV route.
	Maun	Maun	
	Luena	Luena	
	Kinshasa		
	Garoua		
	Maiduguri	Maiduguri	

ATS Routes in the ICAO AFI ANP (Doc. 7474)
requiring implementation

Route Designator	Segment(s)	States	Observations/Remarks
UA145	(Paleohora) SALUN Sidi Barrani (31636N 02556E)	Egypt Greece	Implemented by Egypt for northbound traffic only (3400N 024276)
UA293	Ibiza Tiaret	Algeria	Required northbound
UA411	Jerba Tripoli Benina	Libya	Implemented at variance with the Plan via: A411 - Jerba/Zawia/Tripoli/Misurata A411N - Jerba/TANLI/Mitiga/Misurata
UA618	Lubumbashi Bukavu SAGBU Malakal	DRC Sudan	
UA748	(GOZO) Tripoli Mizda Cairo Sharm Sheileh	Libya Egypt	
UA861	Lagos Garoua	Nigeria	
UB525	Addis Ababa Luxor	Ethiopia Sudan	
UB527	Malakal Kenana	Sudan	Implemented at variance with AFI Plan via Kenana
UB528	Livingstone Luena	Angola	
UB607	El Obeid Dongola Abu Simbel	Sudan	Not implemented in Khartoum FIR (due to military reasons)
UG207	Mogadishu Karachi	Somalia	
UG623	Annaba Tebessa Ghadames	Algeria Libya	Segment of the route suspended since 1980 by Libya.
UG855	Tripoli Ghadames B. Omar Driss	Libya	
UG864	Tunis Ghardaia Timimoun	Libya	

Route Designator	Segment(s)	States	Observations/Remarks
UG979	Bordj Omar Driss Bou Saada Zemmouri	Algeria	
UL612	Goma El Dhaba	Zaire DR. Congo Sudan Egypt	Egypt can accept implementation via ATMUL New Valley/KATAB/DBA
UM220	Lodwar Abu Simbel	Sudan	RNAV
UM731	Cabonara	Angola OSNAR	
Tunis	Jerba FARES DEKIL MOLOM Sauramo Johannesburg	Congo DRC Libya Botswana	Implemented in Tunis FIR between Tunis and FARES
UM994	Beni Walid ORNAT	Libya	RNAV
UM998	(Martigues) BALEN Constantine B. O. Driss Tobuk ENBUT Maiduguri EBIMU Kinshasa Luena Maun Gaborone	Nigeria Congo DRC Angola Botswana	RNAV Congo DRC Not implemented as RNAV between Kinshasa Luena-Maun-Gaborone implemented as UB733 Kinshasa - Gaborone)
UR400	Abu Simbel Kassala	Sudan	
UR613	Pantelleria Lampedusa Tripoli	Libya	Implemented in Malta FIR via SARKI. Not implemented in Tripoli FIR Sahara.
UR780	Mogadishu Dire Dawa Asmara	Somalia	
UR981	Casablanca Marraketch BULIS Gao	Morocco	i) Implemented ii) Not implemented segment Casablanca Gao
UR986	Tunis Ghadames In Amenas	Algeria Libya	Not implemented due to restriction by Libya

English ATM Deficiencies

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Algeria</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UR981	Casablanca-Marrakech-BULIS-Gao-Niamey-Lagos.	1995	Aircraft subjected to fly non-economical routes	States concerned to coordinate common implementation date (Route segment implemented in Algeria).	Mali-Mauritania-Morocco-Niger-Nigeria	31/12/04	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UR986	Tunis-Ghadames-In Amenas-Djanet-Kano-Foumban-Yaoundé-France Ville	1995	Aircraft subjected to fly non-economical routes	States concerned to coordinate common implementation date.	Algeria	31/12/04	A
	Annex 11 Appendix 2	Five-letter name code	Route crossings not identified	1998	Difficulties for pilots identifying potential traffic conflicts.	ICAO Regional Office concerned allocate the 5-letter name codes.	Algeria	31/12/04	A
	APIRG/13 Conc.13/43	FIR Algiers	Non-implementation of 10 minutes longitudinal separation.					31/12/04	U
	AFI/7 Rec.5/21	FIR Algiers	Non-implementation of ATC in the upper airspace.					31/12/04	U
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UA293	(Ibiza) (KIRLA) Tiaret.	1995	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation date.	Algeria	31/12/04	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UM999	Casablanca-Errachidia-El Golea-Zarzaitine-Sebha-Sarir-New Valley-Luxor-Jeddah.	1995	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation date.	Algeria-Egypt-Libya-Morocco-Saudi Arabia.	31/12/04	A

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UG623	(BALEN) Annaba-Tebessa-Ghardaia.	1995	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Algeria.	31/12/04	A
<i>Angola</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UM731	Carbonara-OSMAR- Tunis-Jerba-FARES-Dirkou-N'Djamena-Berberati-Saurimo-Johannesburg	1996	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Angola-Botswana-Central African Republic-Congo(DRC)-Chad-Libya-Niger –South Africa-Zambia	31/12/04	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UM998	Gaborone-Maun-Luena-Kinshasa	1996	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Angola-Botswana-DR. Congo.	31/12/04	A
	AFI/7 Rec.5/21.	Provision of ATC 150 NM concept.	Non-provision of ATC Service 150 NM of Huambo	1998	Steep descent for arrival and steep climb for departure.	Implement as required.	Angola	31/12/04	U
<i>Benin</i>	This State has no deficiency in this field.								
<i>Botswana</i>	AFI/7 Rec.5/21	RNAV UM731	Johannesburg-Saurimo	1990	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Angola-Botswana-South Africa-Zambia	31/12/04	A
<i>Burkina Faso</i>	This State has no deficiency in this field.								
<i>Burundi</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Cameroon</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UA861	Lagos-Garoua	1994	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Cameroon	31/12/04	A
<i>Cape Verde</i>	This State has no deficiency in this field.								
<i>Central African Republic</i>	This State has no deficiency in this field.								
<i>Chad</i>	This State has no deficiency in this field.								
<i>Comoros</i>	This State has no deficiency in this field.								
<i>Congo</i>	LIM AFI Rec.10/38	SSR Provision of effective surveillance.	Need for SSR surveillance in extended TMA as expressed in the AFI CNS/ATM Plan.	1998	Traffic density/complexity contributing to frequent ATS incidents	Implement SSR at Brazzaville	Congo	31/12/04	U
<i>Côte d'Ivoire</i>	This State has no deficiency in this field.								
<i>Dem. Rep. of Congo</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	UM731	Johannesburg-Saurimo-Berberati	1995	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates. (Need of VHF coverage before implementation)	Angola-Botswana-Congo (DRC)	31/12/04	A
	AFI/7 Rec.5/21	FIR Kinshasa	Non-provision of ATC service.	-	-	-	-	31/12/04	U

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	APIRG/13 Conc.13/43	FIR Kinshasa	Non-implementation of 10 minute longitudinal separation.	-	-	-	-	31/12/04	U
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UA617	Kinshasa-Windhoek	1995	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation date. (Coordination Meeting with Military Authorities ongoing).	Congo (DRC)	31/12/04	U
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UL612	Goma-El Dhaba(Paleohora)	1995	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Congo (DRC)-Egypt-Sudan	31/12/04	A
<i>Djibouti</i>	This State has no deficiency in this field.								
<i>Egypt</i>	This State has no deficiency in this field.								
<i>Equatorial Guinea</i>	This State has no deficiency in this field.								
<i>Eritrea</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UB525	Addis Ababa-ALEBA-Luxor	1996	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Eritrea	1/9/2005	A
<i>Ethiopia</i>	This State has no deficiency in this field.								
<i>France (Réunion)</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Gabon</i>	This State has no deficiency in this field.								
<i>Gambia</i>	This State has no deficiency in this field.								
<i>Ghana</i>	This State has no deficiency in this field.								
<i>Guinea</i>	This State has no deficiency in this field.								
<i>Guinea Bissau</i>	This State has no deficiency in this field.								
<i>Kenya</i>	AFI/7 Rec.5/1 - Airspace management	P2, R10, D20	Prohibited area, restricted area, danger area.	1990	Non-availability of direct routing.	Withdraw these areas.	Kenya	31/12/04	A
<i>Lesotho</i>	This State has no deficiency in this field.								
<i>Liberia</i>	This State has no deficiency in this field.								
<i>Libya</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UM999	Zarzaitine-Sebha-Sarir-New Valley	1994	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Libya	31/12/04	A
	AFI/7 Rec.5/21	Provision of ATC 150 NM concept	Non-provision of ATC 150 NM of Tripoli.	1990	Delayed descent for arrival and steep climb for departure.	Implement as required.	Libya	31/12/04	U

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UA748	(Gozo)-Tripoli-Mizda- Cairo-Sharm Sheikh	1994	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Libya and adjacent States	31/12/04	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UG623	BALEN-Annaba-Tebessa-Ghadames	1994	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Libya	31/12/04	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UG855	Tripoli-Ghadames-B. Omar Driss	1994	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Libya	31/12/04	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UG864	Tunis-Tebessa-Ghardaia-Timmimoun	1994	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Libya	31/12/04	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UM994	Monastir-Mitiga-Beni- Walid-ORNAT	1994	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Libya	31/12/04	A
	AFI/7 Rec.5/1	Airspace Management	Inadequate airspace management between ATS units leading to frequent traffic incidents in the FIR boundaries between Alger, N'djamena, Tripoli and Niamey not responding to existing route structure flows.	1998	Frequent ATS incidents in the area attributed to airspace management.	Need for urgent meeting of the States concerned to address the problem of airspace management and prevalent ATS incidents in the area.	Libya and adjacent States	31/12/04	A

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UA411	Jerba-Tripoli-Beni-Walid-Benina-GERFA-Mersa Matruh-Cairo	1994	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Libya	31/12/04	A
	AFI/7 Rec.5/1	P21-R23-Airspace Management	Prohibited area-Restricted area	1990	Non-availability of direct routing.	State concerned to withdraw these areas.	Libya	31/12/04	A
<i>Madagascar</i>	This State has no deficiency in this field.								
<i>Malawi</i>	This State has no deficiency in this field.								
<i>Mali</i>	This State has no deficiency in this field.								
<i>Mauritania</i>	This State has no deficiency in this field.								
<i>Mauritius</i>	This State has no deficiency in this field.								
<i>Morocco</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UR981	Casablanca-Marrakech-BULIS.	1995	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Morocco	31/12/04	A

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Airspace Management	Problems associated with non flight level allocations on ATS routes.	1998	Non-standard flight level allocations contributed to ATS incidents	States concerned to meet and address issues under column 3.	Morocco-Portugal	31/12/04	U
<i>Mozambique</i>	This State has no deficiency in this field.								
<i>Namibia</i>	AFI/7 Rec.5/21	Provision of ATC 150 NM concept	Non-provision of ATC service 150 NM Windhoek	1994	Delayed descent for arrival and steep climb for departure.	To Implement as required.	Namibia	31/12/04	U
<i>Niger</i>	This State has no deficiency in this field.								
<i>Nigeria</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UA861	Lagos-Garoua	1995	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation dates.	Nigeria	31/12/04	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UM998	Ngaoundere-Maiduguri-Djanet	1995	Aircraft subjected to fly non-economical routes.	-	Nigeria	31/12/04	A
<i>Rwanda</i>	This State has no deficiency in this field.								
<i>Sao Tome & Principe</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Senegal</i>	This State has no deficiency in this field.								
<i>Seychelles</i>	This State has no deficiency in this field.								
<i>Sierra Leone</i>	This State has no deficiency in this field.								
<i>Somalia</i>	AFI/7 Rec.5/21	Provision of ATC 150 NM concept.	Non-provision of ATC service 150 NM of Mogadishu.	1994	Delayed descent for arrival and steep climb for departure.	No action due to the present situation	Somalia	31/12/04	U
	AFI/7 Rec.5/21	Route UG207	Mogadishu-Karachi	1990	Aircraft subjected to fly non-economical routes.	States concerned to coordinate common implementation date.	Somalia	31/12/04	A
<i>South Africa</i>	This State has no deficiency in this field.								
<i>Spain (Canary Is.)</i>	This State has no deficiency in this field.								
<i>Sudan</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UR400	A. Simbel-Kassala	1994	Aircraft subjected to fly non-economical routes.	Not acceptable now within Khartoum FIR.	Sudan	17/02/05	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UR995	Merowe-Addis Ababa	1994	Aircraft subjected to fly non-economical routes.	To be deleted and replaced by UM665.	Sudan	17/02/05	A

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UM665	Addis Ababa-Merowe	1994	Aircraft subjected to fly non-economical routes.	Not acceptable in Khartoum FIR due to military reasons.	Sudan	17/02/05	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UM220	Lodwar-A.Simbel	1994	Aircraft subjected to fly non	States concerned to coordinate common implementation dates.	Sudan	17/02/05	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	RNAV UL612	Goma-El Dhaba	1994	Aircraft subjected to fly non	Overlaps UB607 need to review alignment at appropriate forum.	Sudan	17/02/05	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UB607	Goma-El Obeid-New Valley-El Dabha	1994	Aircraft subjected to fly non	States concerned to coordinate common implementation dates.	Sudan	17/02/05	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UB525	Addis Ababa-Luxor	1994	Aircraft subjected to fly non	Not acceptable now in Khartoum FIR.	Sudan	17/02/05	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Route UA618	Bukavu-Malakal	1994	Aircraft subjected to fly non	Not available now in Khartoum FIR.	Sudan	17/02/05	A
	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	Provision of ATS	Area control service not provided to most ATS routes in the upper airspace.	1998	Aircraft subjected to fly non	State to expedite implementation process.	Sudan	17/02/05	A
<i>Swaziland</i>	AFI/7 Rec.5/1	P4 - Airspace Management	Prohibited area	1990	Non-availability of direct routings.	Withdraw this area - P4.	Swaziland	31/12/04	A

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Tanzania</i>	AFI/7 Rec.5/8 and Table ATS 1 AFI ANP Doc.7474.	UB527	Lubumbashi - Dar-es-Salaam	2001	Aircraft subjected to fly non-economical routes.	Tanzania is coordinating with the States for a common implementation date.	D. R. Congo - Tanzania	31/12/04	A
<i>Togo</i>	This State has no deficiency in this field.								
<i>Tunisia</i>	This State has no deficiency in this field.								
<i>Uganda</i>	This State has no deficiency in this field.								
<i>Western Sahara</i>	This State has no deficiency in this field.								
<i>Zambia</i>	This State has no deficiency in this field.								
<i>Zimbabwe</i>	This State has no deficiency in this field.								

SAR English Deficiencies

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Algeria</i>	This State has no deficiency in this field.								
<i>Angola</i>	This State has no deficiency in this field.								
<i>Benin</i>	This State has no deficiency in this field.								
<i>Botswana</i>	This State has no deficiency in this field.								
<i>Burkina Faso</i>	This State has no deficiency in this field.								
<i>Burundi</i>	Annexe 12, 3.1.6, 3.1.7	SAR legislation	Provide legal framework for the SAR authority	1995	Lack of legal authority could delay SAR	Establish SAR legislation	Burundi	31/12/04	A
	Annex 12, 2.4, Annex 12, 3.2.4: AFI/7 Rec.6/1 and 6/2	SARSAT ELT	406 MHz	1993	Delay to conduct SAR OPS	Coordinate with States concerned.	Burundi and Adjacent States.		
<i>Cameroon</i>	This State has no deficiency in this field.								
<i>Cape Verde</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Central African Republic</i>	This State has no deficiency in this field.								
<i>Chad</i>	This State has no deficiency in this field.								
<i>Comoros</i>	Annex 12, 3.1.5, AFI/7 Conc.6/3	SAR Agreements	-	1991	Delay to conduct SAR OPS	Coordinate with States concerned	Comoros and adjacent States	31/12/04	A
	Annexe 12, 2.4, Annexe 12, 3.2.4, AFI/7 Rec.6/1 and 6/2	SARSAT ELT	406 MHz	1993	Delay to conduct SAR OPS	Implement 406 MHz in acft. – Provide SPOC to ICAO	Comoros	31/12/04	A
	Annexe 12, 3.1.6, 3.1.7	SAR legislation	Provide legal framework for the SAR authority	1995	Lack of legal authority could delay SAR efficiency.	Establish SAR legislation	Comoros	31/12/04	A
<i>Congo</i>	This State has no deficiency in this field.								
<i>Côte d'Ivoire</i>	This State has no deficiency in this field.								
<i>Dem. Rep. of Congo</i>	This State has no deficiency in this field.								
<i>Djibouti</i>	Annex 12, 3.1.5, AFI/7 Conc.6/3	SAR Agreements	-	1991	Delay to conduct SAR OPS	Coordinate with States concerned	Djibouti and adjacent States	31/12/04	A
	Annex 12, 2.4, Annex 12, 3.2.4, AFI/7 Rec. 6/1 and 6/2	SARSAT ELT	406 MHz	1993	Delay to conduct SAR OPS	i) Provide SPOC to ICAO: ii) Implement 406	Djibouti	31/12/04	A

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
	Annex 12, 3.1.6, 3.1.7	SAR legislation	Provide legal framework for the SAR authority	1995	Lack of legal authority could delay SAR efficiency.	MHz acft. Establish SAR legislation	Djibouti	31/12/04	A
<i>Egypt</i>	This State has no deficiency in this field.								
<i>Equatorial Guinea</i>	This State has no deficiency in this field.								
<i>Eritrea</i>	Annex 12, 3.1.5, AFI/7 Conc.6/3	SAR Agreements	Establish SAR agreements	1995	Delay to conduct SAR OPS	Coordination with States concerned	Eritrea and adjacent States	1/3/2005	A
	Annex 12, 3.1.6, 3.1.7	SAR Legislation	Provide legal framework for the SAR authority	1995	Lack of legal authority could delay SAR	Establish SAR Agreements	Eritrea	1/3/2005	A
<i>Ethiopia</i>	Annex 12, 3.1.5, AFI/7 Conc.6/3.	SAR Agreements	-	1995	Delay to conduct SAR/OPS	Coordinate with States concerned.	Ethiopia and adjacent States	31/12/04	A
<i>France (Réunion)</i>	This State has no deficiency in this field.								
<i>Gabon</i>	This State has no deficiency in this field.								
<i>Gambia</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Ghana</i>	This State has no deficiency in this field.								
<i>Guinea</i>	This State has no deficiency in this field.								
<i>Guinea Bissau</i>	This State has no deficiency in this field.								
<i>Kenya</i>	Annex 12, 2.4, Annex 12, 3.2.4, AFI/7 Rec. 6/1 and 6/2	SARSAT ELT	406 MHz	1993	Delay to conduct SAR OPS	Implement 406 MHz in acft.	Kenya	31/12/04	A
	Annex 12, 3.1.6, 3.1.7	SAR legislation	Provide legal framework for the SAR Authority	1995	Lack of legal authority could delay SAR efficiency.	Establish SAR legislation	Kenya	31/12/04	A
	Annex 12, 3.1.5, AFI/7 Conc.6/3	SAR Agreements	-	1996	Delay to conduct SAR OPS	Signed with EAC States only. To coordinate with other neighbouring States concerned outside EAC.	Kenya and adjacent States	31/12/04	A
<i>Lesotho</i>	This State has no deficiency in this field.								
<i>Liberia</i>	This State has no deficiency in this field.								
<i>Libya</i>	This State has no deficiency in this field.								
<i>Madagascar</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Malawi</i>			This State has no deficiency in this field.						
<i>Mali</i>			This State has no deficiency in this field.						
<i>Mauritania</i>			This State has no deficiency in this field.						
<i>Mauritius</i>			This State has no deficiency in this field.						
<i>Morocco</i>			This State has no deficiency in this field.						
<i>Mozambique</i>			This State has no deficiency in this field.						
<i>Namibia</i>			This State has no deficiency in this field.						
<i>Niger</i>			This State has no deficiency in this field.						
<i>Nigeria</i>			This State has no deficiency in this field.						
<i>Rwanda</i>			This State has no deficiency in this field.						
<i>Sao Tome & Principe</i>			This State has no deficiency in this field.						
<i>Senegal</i>			This State has no deficiency in this field.						

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Seychelles</i>	This State has no deficiency in this field.								
<i>Sierra Leone</i>	This State has no deficiency in this field.								
<i>Somalia</i>	AFI/7 Rec.5/21	Route UG207	Mogadishu-Karachi	1990	Aircraft subjected to fly non-economical routes	States concerned to coordinate common implementation date	Somalia	31/12/04	A
	AFI/7 Rec.5/21	Provision of ATC 150 NM concept	Non-provision of ATC service 150 NM of Mogadishu	1994	Delayed descent for arrival and steep climb for departure	No action due to the present situation	Somalia	31/12/04	U
<i>South Africa</i>	This State has no deficiency in this field.								
<i>Spain (Canary Is.)</i>	This State has no deficiency in this field.								
<i>Sudan</i>	This State has no deficiency in this field.								
<i>Swaziland</i>	This State has no deficiency in this field.								
<i>Tanzania</i>	This State has no deficiency in this field.								
<i>Togo</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Tunisia</i>			This State has no deficiency in this field.						
<i>Uganda</i>			This State has no deficiency in this field.						
<i>Western Sahara</i>			This State has no deficiency in this field.						
<i>Zambia</i>			This State has no deficiency in this field.						
<i>Zimbabwe</i>			This State has no deficiency in this field.						

AIS English Deficiencies

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Algeria</i>	This State has no deficiency in this field.								
<i>Angola</i>	Annex 4, 3.2 and 13.2 AFI/7 Rec. 12/31	ICAO Mandatory Charts	Non-availability of the ICAO Aerodrome Chart and the ICAO Aerodrome Obstacle Chart - Type A for Huambo and Luanda.	1990	Lack of charts affects safety	Publish these Charts for Luanda and Huambo	Angola	31/12/04	U
<i>Benin</i>	This State has no deficiency in this field.								
<i>Botswana</i>	This State has no deficiency in this field.								
<i>Burkina Faso</i>	This State has no deficiency in this field.								
<i>Burundi</i>	This State has no deficiency in this field.								
<i>Cameroon</i>	Annex 4, 3.2 and 13.2 AFI/7 Rec.12/31 and 12/32 AFI/7	ICAO Mandatory Charts	Non-availability of the ICAO Aerodrome Chart and the ICAO Aerodrome Obstacle Chart - Type A for Yaoundé.	1990	Lack of charts affects safety	Publish these charts for Yaounde	Cameroon	31/12/04	U
<i>Cape Verde</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Central African Republic</i>	This State has no deficiency in this field.								
<i>Chad</i>	This State has no deficiency in this field.								
<i>Comoros</i>	Annex 4, 3.2 and AFI/7 Rec.12/31	ICAO Mandatory Charts	Non-availability of the ICAO Aerodrome Obstacle Chart - Type A for Dzaoudzi and Moroni	1990	Lack of this chart affects safety	Publish this Chart for Moroni and Dzaoudzi	Comoros	31/12/04	U
<i>Congo</i>	This State has no deficiency in this field.								
<i>Côte d'Ivoire</i>	This State has no deficiency in this field.								
<i>Dem. Rep. of Congo</i>	Annex 4, 13.2 and AFI/7, Rec.12/31	ICAO Mandatory Charts	Aerodrome Charts outdated	1990	Non-updated charts affects safety	Publish new charts. IAC and VAC charts published.	Congo (DRC)	31/12/04	U
<i>Djibouti</i>	Annex 15, 3.3	Integrated AIS package	Irregular distribution of AIS package	01/01/98	Non-availability of latest status of information affects safety	Distribute regularly	Djibouti	31/12/04	U
	Annex 15, 3.6.4	Coordinates WGS84	Accuracy of coordinates in accordance with Annexes 11 and 14	01/01/98	Delay in introduction of GNSS	Implement WGS-84 coordinates	Djibouti	31/12/04	U
<i>Egypt</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Equatorial Guinea</i>	This State has no deficiency in this field.								
<i>Eritrea</i>	This State has no deficiency in this field.								
<i>Ethiopia</i>	This State has no deficiency in this field.								
<i>France (Réunion)</i>	This State has no deficiency in this field.								
<i>Gabon</i>	This State has no deficiency in this field.								
<i>Ghana</i>	Annex 15, 3.3	Integrated AIS package		01/01/98	Non-availability of latest status of information.	Distribute regularly	Gambia	31/12/04	U
<i>Gambia</i>	This State has no deficiency in this field.								
<i>Guinea</i>	Annex 15, 3.3	Integrated AIS package.	Irregular distribution of AIS package	01/01/98	Non-availability of latest status of information.	Distribute regularly	Guinea	31/12/04	U
<i>Guinea Bissau</i>	Annex 15, 3.6.4	Coordinates WGS-84	Accuracy of coordinates in accordance with Annexes 11 and 14.	01/01/98	Delay in introduction of GNSS	Implementation of WGS-84 coordinates	Guinea-Bissau	31/12/04	U
<i>Kenya</i>	This State has no deficiency in this field.								
<i>Lesotho</i>	Annex 15, 4.1	Lack of new AIP format	Irregular distribution of AIS package	01/01/96	Non-availability of AIP affects safety	Implement and publish new AIP	Lesotho	31/12/04	U

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Liberia</i>	Situation unknown	Robertsfield							
<i>Libya</i>	This State has no deficiency in this field.								
<i>Madagascar</i>	This State has no deficiency in this field.								
<i>Malawi</i>	This State has no deficiency in this field.								
<i>Mali</i>	This State has no deficiency in this field.								
<i>Mauritania</i>	This State has no deficiency in this field.								
<i>Mauritius</i>	This State has no deficiency in this field.								
<i>Morocco</i>	Annex 15, 4.1	New AIP format	Irregular distribution of AIS package.	1/1/96	Non-availability of AIP affects safety	Implement and publish new AIP	Morocco	31/12/04	U
<i>Mozambique</i>	Annex 15, 4.1	AIP in new format	Non-availability of up-to-date information	01/01/96	Use of outdated information may affect safety	Implement and publish new AIP format.	Mozambique	31/12/04	U
<i>Namibia</i>	Annex 4, 13.2 and AFI/7 Rec.12/31	ICAO Mandatory Charts	Non-availability of ICAO Aerodrome Chart for Keetmanshoop and Windhoek/Hosea Kotako.	1979	Lack of these charts affects	Publish the required charts	Namibia	31/12/04	U
<i>Niger</i>	This State has no deficiency in this field.								
<i>Nigeria</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Rwanda</i>	Annex 4, 3.2 and 13.2 Rec.12/31 AFI/7.	ICAO Mandatory Charts.	Non-availability of ICAO Aerodrome Chart and Aerodrome Obstacle Chart - Type A for Kigali.	1979	Lack of these charts affects safety.	Publish the two charts for Kigali.	Rwanda	31/12/04	U
<i>Sao Tome & Principe</i>	Annex 15, 5.1	NOTAM	Irregular Publication of NOTAM.	1991	Lack of NOTAM affects safety.	Publish regularly.	Sao Tome (Brazzaville FIR)	31/12/04	U
<i>Senegal</i>	This State has no deficiency in this field.								
<i>Seychelles</i>	This State has no deficiency in this field.								
<i>Sierra Leone</i>	Annex 15, 5.1	NOTAM	Irregular Publication of NOTAM Publication of reported points.	1991	Lack of NOTAM affects safety	Publish regularly	Sierra Leone (Roberts FIR)	31/12/04	U
<i>Somalia</i>	Annex 4, 3.2, 11.2 and 13.2, AFI/7 Rec.12/31	ICAO Aerodrome Chart and the ICAO Aerodrome Obstacle Chart - Type A.	Non-availability of ICAO Aerodrome Chart, ICAO Aerodrome Obstacle Chart type A and ICAO Instrument Approach Chart for Hargeisa, Kismayu, Mogadishu.	1990	Lack of these charts affects safety.	Publish the three Charts as required	Somalia	31/12/04	U
	Annex 15, 3.6.4	Coordinates WGS84	Accuracy of coordinates to be established in accordance with Annexes 11 and 14.	01/01/98	Delay in introduction of GNSS	Implementation of WGS-84 coordinates	Somalia	31/12/04	U
<i>South Africa</i>	This State has no deficiency in this field.								
<i>Spain (Canary Is.)</i>	This State has no deficiency in this field.								

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of corrective action</i>	<i>Executing Body</i>	<i>Target date for implementation</i>	<i>Priority</i>
<i>Sudan</i>	Annex 4, 13.2 15, 8.1	ICAO Mandatory Charts.	Non-availability of ICAO Aerodrome Chart for Khartoum.	1990	Lack of this chart affects safety.	Publish the required chart	Sudan	31/12/04	U
<i>Swaziland</i>	Annex 4, para 3.2 and Rec.12/31 AFI/7	Non-availability of ICAO Aerodrome Chart and the ICAO Aerodrome Obstacle Chart - Type A.	Non-availability of ICAO Aerodrome Obstacle Chart type A for Matsapha.	1991	Lack of this chart affects safety.	Publish the required chart.	Swaziland	31/12/04	U
<i>Tanzania</i>	This State has no deficiency in this field.								
<i>Togo</i>	This State has no deficiency in this field.								
<i>Tunisia</i>	This State has no deficiency in this field.								
<i>Uganda</i>	This State has no deficiency in this field.								
<i>Western Sahara</i>	This State has no deficiency in this field.								
<i>Zambia</i>	This State has no deficiency in this field.								
<i>Zimbabwe</i>	This State has no deficiency in this field.								

List of ATS/DS deficiencies

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implement</i>	<i>Priority</i>
<i>Algeria</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Algiers ACC-FIC	Circuit Algiers/Tripoli			Implement LTF circuit	Algeria, Libya		U
<i>Angola</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Luanda FIC	Circuit Luanda/Accra	1998	Inmarsat phone used from Luanda. Inmarsat Phone also available in Accra	VSAT under consideration	Angola, Ghana		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Luanda FIC	Circuit Luanda/Atlantico	1998	Not implemented	Implement circuit	Angola, Brazil		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Luanda FIC	Circuit Luanda/Brazzaville	1998	PSTN used via Inmarsat	To implement LTF circuit	Angola, ASECNA		A
<i>Botswana</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Francistown TWR	Circuit Francistown/Bulawayo	2002	Not implemented	Implement facility	Botswana, Zimbabwe		A
<i>Burkina Faso</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bobo Dioulasso	Circuit Bobo Dioulasso/Accra	1998	PSTN in use	VSAT planned by ASECNA	ASECNA, Ghana		A
<i>Burundi</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bujumbura APP	Circuit Bujumbura/Goma	1998	Not implemented		Burundi, DR Congo		U

<i>State Name Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implement</i>	<i>Priority</i>	
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bujumbura APP	Circuit Bujumbura/Kinshasa	1998	Not implemented	VSAT implemented at Bujumbura and Kinshasa	Burundi, DR Congo	U	
<i>Cameroon</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Douala APP	Circuit Douala/Bata	1998	Not implemented	VSAT planned at Bata	ASECNA	A	
<i>Chad</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Khartoum	1998	Not implemented	VSAT NAFISAT. PSTN proposed by ASECNA.	ASECNA, Sudan	2007	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	N'Djamena APP/FIC	Circuit N'Djamena/Tripoli	1998	Not implemented	VSAT NAFISAT. PSTN and Satphone proposed by ASECNA	ASECNA, Libya	2007	U
<i>Congo</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Brazzaville APP/FIC	Circuit Brazzaville/Khartoum	1998	Not implemented	VSAT AFISNET proposed by ASECNA	ASECNA, Sudan	2007	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Brazzaville APP/FIC	Circuit Brazzaville/Luanda	1998	PSTN used via Inmarsat phone	To implement VSAT	Angola, ASECNA	U	
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Brazzaville APP/FIC	Circuit Brazzaville/Sao Tome	1998	Not implemented	VSAT to be installed at Sao Tome	ASECNA, Sao Tome & Principe	2005	U
<i>Dem. Rep. of Congo</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Goma APP	Circuit Goma/Bujumbura	1998	Not implemented		DR Congo, Burundi	U	
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Goma APP	Circuit Goma/Kigali	1998	Not implemented		DR Congo, Rwanda	U	

<i>State Name Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implement</i>	<i>Priority</i>
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kinshasa FIC	Circuit Kinshasa/Bujumbura	2002	Not implemented	VSAT implemented both centres	DR Congo, Burundi		A
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kinshasa FIC	Circuit Kinshasa/Entebbe	1996	Not implemented	VSAT SADC2 and NAFISAT in project	DR Congo, Uganda	2007	U
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kinshasa FIC	Circuit Kinshasa/Khartoum	1996	Inmarsat phone available at	VSAT NAFISAT in project	DR Congo, Sudan	2007	U
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kinshasa FIC	Circuit Kinshasa/Kigali	1996	Not implemented	VSAT operational in Kinshasa and in Kigali	DR Congo, Rwanda		U
<i>Egypt</i>								
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Cairo ACC	Circuit Cairo/Khartoum	1996	Not implemented	LTF circuit via PTTs proposed by Egypt until VSAT NAFISAT implemented.	Egypt, Sudan	2007	U
<i>Equatorial Guinea</i>								
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bata & Malabo APP	Circuit Bata/Malabo	2002	Not implemented	VSAT planned	ASECNA		U
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bata APP	Circuit Bata/Douala	1996	Not implemented	VSAT planned	ASECNA		A
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bata APP	Circuit Bata/Libreville	1996	Not implemented	VSAT planned	ASECNA		U
<i>Eritrea</i>								
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Asmara ACC	Circuit Asmara/AddisAbaba	1998	This circuit has been disconnected	To be restored. NAFISAT	Eritrea, Ethiopia	2007	U

<i>State Name</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implement</i>	<i>Priority</i>
<i>Ethiopia</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Addis Ababa ACC/FIC	Circuit Addis Ababa/Asmara	1998	This circuit has been disconnected	To be restored. NAFISAT	Ethiopia, Eritrea	2007	U
<i>Gabon</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Libreville ACC	Circuit Libreville/Bata	1996	Not implemented	VSAT planned at Bata	ASECNA		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Libreville ACC	Circuit Libreville/Sao Tome	1996	Not implemented	VSAT to be installed by Sao Tome	ASECNA, Sao Tome & Principe	2005	U
<i>Gambia</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Banjul APP	Circuit Banjul/Bissau	1996	Not implemented	VSAT being considered	Gambia/Guinea Bissau		A
<i>Ghana</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Bobo Dioulasso	1998	PSTN in use	VSAT planned at Bobo Dioulasso	Ghana, ASECNA		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Accra APP/FIC	Circuit Accra/Luanda	1998	Inmarsat phone used from Luanda. Inmarsat also available in Accra	VSAT under consideration	Ghana, Angola		U
<i>Guinea</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Conakry APP	Circuit Conakry/Bissau	1996	Not implemented	Implement LTF circuit	Guinea, Guinea Bissau		U
<i>Guinea Bissau</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bissau APP	Circuit Bissau/Banjul	1996	Not implemented	VSAT being considered	Gambia, Guinea Bissau		A

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<i>State Name Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implement</i>	<i>Priority</i>
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bissau APP	1996	Not implemented	Implement LTF circuit	Guinea, Guinea Bissau		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bissau APP	1996	Not implemented	VSAT being considered	ASECNA, Guinea Bissau		U
<i>Libya</i>	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Tripoli ACC/FIC	1998	Not implemented	Implement LTF circuit. Algiers to contact PTT Libya.	Libya, Algeria		U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Tripoli ACC/FIC	1998	Not implemented	VSAT NAFISAT in project.	Libya, Sudan	2007	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Tripoli ACC/FIC	1998	Not implemented	VSAT NAFISAT in project	Libya, ASECNA	2007	U
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Tripoli ACC/FIC	1998	Not implemented	VSAT NAFISAT in project. PSTN and Satphone proposed by ASECNA	Libya, ASECNA	2007	U
<i>Niger</i>	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Niamey ACC/FIC	1998	Not implemented	VSAT NAFISAT in project	ASECNA, Libya	2007	U
<i>Rwanda</i>	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kigali APP	1996	Not implemented		Rwanda, DR Congo		A
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Kigali APP	1996	Not implemented	VSAT operational in Kinshasa and in Kigali	Rwanda, DR Congo		U

<i>State Name Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implement</i>	<i>Priority</i>
<i>Sao Tome & Principe</i>								
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Sao Tome TWR	Circuit Sao Tome/Brazzaville	1998	Not implemented	VSAT to be installed at Sao Tome	Sao Tome & Principe, ASECNA	2005	U
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Sao Tome TWR	Circuit Sao Tome/Libreville	1998	Not implemented	VSAT to be installed at Sao Tome	Sao Tome & Principe, ASECNA	2005	U
<i>Senegal</i>								
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Dakar ACC/FIC	Circuit Dakar/Bissau	1998	Not implemented	VSAT being considered	ASECNA, Guinea Bissau		U
<i>South Africa</i>								
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Johannesburg ACC/FIC	Circuit Johannesburg/Ezeiza	1998	Not implemented	CAFSAT VSAT implemented in Johannesburg.	South Africa, Argentina	2005	U
<i>Sudan</i>								
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Brazzaville	1996	Not implemented	VSAT AFISNET proposed by ASECNA	Sudan, ASECNA	2007	U
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Cairo	1996	Not implemented	LTF circuit via PTTs proposed by Egypt until implementation of VSAT NAFISAT	Egypt, Sudan	2007	U
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Jeddah	1996	Not implemented	VSAT NAFISAT in project	Sudan, Saudi Arabia	2007	U
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Kinshasa	1996	Not implemented	VSAT NAFISAT in project	Sudan, DR Congo	2007	U
ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/N'djamena	1996	Not implemented	VSAT NAFISAT in project. PSTN proposed by ASECNA	Sudan, ASECNA	2007	U

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<i>State Name</i>	<i>Requirements</i>	<i>Facilities or Services</i>	<i>Description of Deficiency</i>	<i>Date first reported</i>	<i>Comments on Deficiency</i>	<i>Description of Corrective action</i>	<i>Executing Body</i>	<i>Target date for implement</i>	<i>Priority</i>
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Khartoum FIC	Circuit Khartoum/Tripoli	1996	Not implemented	VSAT NAFISAT in project	Sudan, Libya	2007	U
<i>Uganda</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Entebbe FIC	Circuit Entebbe/Kinshasa	1996	Not implemented	VSAT SADC2 and NAFISAT in project	DR Congo, Uganda	2007	U
<i>Zimbabwe</i>									
	ATS Direct Speech Circuits Plan, AFI/7 Rec. 9/9	Bulawayo TWR	Circuit Bulawayo/Francistown	2002	Not implemented	Implement facility	Zimbabwe, Botswana		A
