



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

Agenda Item 3.4: Air Traffic Management (ATM)

Outcome of the Fifteenth Informal Coordination Meeting on the Improvement of Air Traffic Services over the South Atlantic (SAT/15) and related follow up activities

(Presented by the Secretariat)

<p style="text-align: center;">SUMMARY</p> <p>This paper presents the outcome of the Fifteenth Informal Coordination Meeting on the Improvement of Air Traffic Services over the South Atlantic for review by APIRG.</p> <p>Action by the meeting is at paragraph 3.</p>
<p>References :</p> <p>[1] – SAT/FIT/5 Report [2] – SAT/15 Report.</p>
<p>Related ICAO Strategic Objectives: A, D</p>

1. INTRODUCTION

1.1 The Fifteenth Informal Coordination Meeting on the improvement of air traffic services over the South Atlantic (SAT/15) was held in Lisbon, Portugal from 19 to 21 May 2010. The meeting was hosted Nav Portugal and was held at the Hotel Tivoli Oriente. The meeting was preceded by the Fifth Meeting of the SAT FANS 1/A Interoperability Team (SAT/FIT/5) held at the same venue, from 17th to 18th May 2010

1.2 This paper provides APIRG/17 with the outcome of SAT/15 meeting. **Appendix A** hereto contains the SAT/15 conclusions and decisions and Appendix B show the conclusions and decisions of the SAT/FIT/5 meeting as endorsed by the SAT15 meeting.

2. DISCUSSIONS

Air Traffic Management (ATM)

2.1 Follow up of the AORRA airspace implementation

2.1.1 The meeting recalled the benefit expected by users from the random routing system and the history of the process which must soon lead to the full implementation of the AORRA. In this regard, the meeting was reminded that Conclusion SAT 14TF1/05 called for the implementation of AORRA phases 3 and 4 by April 2010.

2.1.2 As this target date could not be met, the meeting was of the view that States concerned should agree to the earliest AIRAC date for the implementation of the last part of

the AORRA. Taking into account preparatory actions to be carried out prior to the implementation itself, the meeting agreed to the implementation date on the 26 August 2010 (**Conclusion SAT 1/01**)

2.1.3 The meeting's attention was then drawn to the following key issues related to AORRA implementation and acknowledged by successive SAT meetings:

- All routes within AORRA should be suspended in order to allow full random routing operations and remove any misunderstanding of the application. These routes may be reactivated in case of an emergency situation.
- Direct route transitions are required from Waypoints on the existing Airway structure to discrete Latitude/Longitude Waypoints on the AORRA boundaries, in order to optimize random routing benefits.

2.1.4 In this regard, IATA submitted to the meeting a working paper proposing additional Entry/Exit waypoints on the AORRA boundary along with suitable transitions from the existing Domestic airway structure.

2.1.5 The meeting recognized the need for SAT States and concerned ACCs to define Entry/Exit Waypoints on the AORRA boundary and efficient hook-ups to the existing conventional fixed routes outside of the AORRA area. However, the meeting was of the view that ANSPs should take time to consider the proposal and assess the safety aspect before implementation. Furthermore, in some cases, there is a need for dialogue and agreement between adjacent FIRs.

2.1.6 The meeting therefore decided that a coordination meeting be held between IATA and concerned ACCs to discuss the direct transitions to/from AORRA airspace (**Conclusion SAT15/02**). **This meeting was successfully held in Accra (Ghana) from 29 to 30 June 2010.**

2.2 Proposed amendment to doc 7030, regional supplementary Procedures

2.2.1 The meeting was presented with a need identified for amendment to the Regional Supplementary Procedures (DOC 7030), in particular with regards to operations within the Random Routing Areas.

2.2.2 The identified requirement to amend sections of the AFI Regional Supplementary Procedures amendments was presented to the ATS/AIS/SAR Sub Group meeting which was convened recently in Nairobi, Kenya, for consideration. The proposed amendments were accepted, conditional to the amendments being presented to the SAT Group for review taking into account the effect the proposed amendments may have on neighboring airspaces.

2.2.3 The meeting reviewed the amendments proposed and agreed that SAT members forward to the secretariat their comments on the proposed amendments by the end of June 2010 (**Conclusion SAT15/03**)

2.3 SATMA report on Traffic Statistics, Safety procedures and operational procedures in the EUR/SAM corridor.

2.3.1 SATMA presented global information on SAT States and detailed information about the air traffic statistics of the EUR-SAM Corridor during the year 2009 as well as the evolution of these figures since 2004; main figures are as follows:

- 2009/2008: 16% decrease
- Traffic on main ATS routes: UN741 22%, UN866 24%, UN873 38%
- EUR-SAM Corridor: 5 years period 2004- 2009 shows a global positive increase of 10,6%.
- January- March 2010: a descent of air traffic of 5% is detected.

2.3.2 SATMA presented its work on the 2009 collision risk assessment for the EURSAM Corridor. Due to the delay in the reception of the required data, SATMA could not finalize the collision risk assessment itself, and only a preliminary analysis of some parameters was presented to the meeting.

2.3.3 The report emphasized the importance of the evolution of the operational risk in the estimation of the total vertical risk, in particular the LHDs, the status of which is shown in the following tables:

Locations	N° LHDs	Time spent wrong level	N° levels crossed	Reasons
Canaries UIR	2	0.333 h.	0	Coordination errors
Sal UIR	1	1.162 h.	1	Coordination errors
Dakar UIR	8	2.379 h.	0	Coordination errors
Atlantic-Recife UIR	15	1.200 h.	0	Coordination errors

Table 1: LHDs reported from January 2009 to June 2009

Locations	N° LHDs	Time spent wrong level	N° levels crossed	Reasons
Canaries UIR	2	0.333 h.	0	Coordination errors
Sal UIR	7	1.167 h.	0	Coordination errors
Dakar UIR	19	6.908 h.	0	Coordination errors
Atlantic-Recife UIR	6	1.551 h.	0	Coordination errors

Table 2 : LHDs reported from July 2009 to December 2009

2.3.4 With these data, total time spent at a wrong level in the Corridor has been 15.033 hours. As the main contribution to the operational risk will be the one due to the time spent at an incorrect flight level, it is expected that the operational collision risk will still be higher than the TLS.

2.3.5 SATMA will make the final collision risk assessment available as soon as feasible, and in any case before the next SAT Meeting.

2.3.6 The meeting noted that, although detailed and exact calculations need to be performed, it can be anticipated that the problems relating to coordination errors and total vertical collision risk presented in the previous safety assessment are not yet solved and that adequate corrective actions should be taken to reduce this type of errors.

2.3.7 In this regard, the meeting noted that the main cause of the LHD's reported to SATMA for the period June 2009- March 2010 has been "operational error in the ATC unit to unit coordination". Therefore, after coordination between the ACCs concerned, the meeting agreed to the operational procedures based on ADS-C/CPDLC to be implemented in the EURSAM Corridor as corrective measures (**Conclusion SAT15/04**)

2.3.8 In addition to the operational procedures based on the use of ADS-C and CPDLC mentioned before, and as not all aircraft are FANS1/A equipped or not all ADS-C/CPDLC connections are always successful, some complementary safety coordination procedures between adjacent ACC's to prevent LHD's were also recommended by the meeting.

2.3.9 In this regard, the meeting was of the view that these complementary procedures should be reflected in Doc 7030. Therefore the following amendment is proposed to be included in Doc 7030 (**Conclusion SAT15/05**)

"Supplementary safety procedures for aircraft in cases of air/ground communications problems (radio or CPDLC) and relay with other aircraft is not available.

Procedures for aircraft flying along the EUR-SAM Corridor, aircraft will perform a lateral right offset up to 2 NM in cases where:

- a) Impossible, difficult or incomprehensive radio or CPDLC communications with the relevant ACC after trying to establish the communications at least during 10 minutes;*
- b) Doubts and impossible confirmation of a clearance issued by ATC; and*
- c) When performing an ATC clearance with additional restriction (time to reach the cleared flight level, Mach number, etc.) and the position of the aircraft is 10 minutes or less to the next boundary.*

In all cases, aircraft will inform the ATC about this lateral offset as soon as suitable communications are re- established."

2.3.10 The meeting was apprised of the improvement recorded with regards to the reporting of LHD occurrences. In all ACCs, the culture of reporting is increasing and the good work of the LHD Monitoring Team, sending monthly reports, is also noted.

Nevertheless, the meeting recognized that, in order to have a more precise picture of the situation and to determine corrective actions to reduce the number of LHDs, LHD reports should be shared with all ACCs involved for thorough analysis (**Decision SAT 15 01**)

2.4 ATS Contingency planning

2.4.1 The meeting recalled that in accordance with Conclusion SAT/14-5, the SAT 14 TF1 Meeting, through conclusion SAT14TF1/12, agreed to a Contingency Plan for the EUR/SAM Corridor and called on Brazil, Cape Verde, Senegal and Spain to implement it according to the following timeframe:

- i. AIC publication: 27 August 2009
- ii. AIC effectiveness: 22 October 2009
- iii. NOTAM Publication: 8 October 2009

2.4.2 All ACCs concerned, confirmed before the meeting that the agreed Contingency plan has been published and enforced.

2.4.3 In view of this achievement, it was argued that, as far as contingency planning is concerned, there is a need for coordination between EURSAM Corridor States which have already implemented the common contingency plan mentioned above and the remaining SAT members. Furthermore, if feasible, it would be better to develop and agree on a comprehensive contingency plan for the whole SAT area (**Conclusion SAT15/06**)

2.5 Any other ATM business

2.5.1 Unknown traffic in the South Atlantic

2.5.1.1 The meeting was seized with the worrying situation created by the great number of unknown aircraft flying through Atlantico, Montevideo and Ezeiza FIRs without any coordination. ACCs concerned reported that, in most of the cases, these flights operate to and from Malvinas/Falklands Island and Ascension Island. Dakar and Abidjan also confirmed the existence of such flights in their airspace.

2.5.1.2 The meeting expressed its concern about this situation which seriously jeopardizes the safety of flight operations in the area. As the issue seems to present political considerations, the meeting particularly called for the intervention of ICAO at the regional level as well as at the headquarter level to solve the problem (**Conclusion SAT15/07**).

2.5.2 ATS deficiencies in the SAT area

2.5.2.1 Under this item, the meeting considered reports from IATA expressing airline concerns regarding persisting deficiencies which affect flight operations and safety in the SAT area. The deficiencies include air traffic services (ATS), aeronautical information services (AIS), meteorology (MET), and communications (COM).

2.5.2.2 The following few examples of the deficiencies that impact airline operations and are predominant in several States in the region were given:

- Operational errors leading to a large number of LHD incidents
- Difficulties to communicate with ATC
- Limited ATS routes/flight levels in the EURSAM Corridor
- Need for RNP4 (30/30NMs) to maximize airspace efficiency

2.5.2.3 Corrective action measures must be implemented. In addition to that, IATA called on State Civil Aviation Authorities to take necessary measures aimed at improving the treatment of ATS incidents reports and to determine more precisely the main causes thereof.

2.5.2.4 The meeting took due note of these reports. However it was recognized that IATA and its member airlines are working closely with ICAO and several Civil Aviation Authorities in a positive and constructive framework, to establish formal review, analysis and resolution of all deficiencies. The meeting agreed that SAT members pursue in that sense by developing an airspace infrastructure plan in line with the Global PBN Plan (**Conclusion SAT15/08**)

Communications, Navigation and Surveillance (CNS)

2.6 Follow up of SAT/14 Conclusions pertaining to the CNS field

Follow up of conclusion SAT14/06: Implementation of ATS/DS circuit for Luanda/Atlantico

2.6.1 The meeting discussed the issue of an ATS/DS direct link between Recife and Luanda and concluded that the reliable and definitive solution is to implement a CAFSAT node in Luanda.

2.6.2 The meeting was informed by Angola and Brazil of their common commitment to organize a technical coordination meeting in order to study the process to implement a CAFSAT node in Luanda to ensure direct ATS/DS link with Recife. ASECNA as team leader of Task 2 of CNS/WG Work Programme was requested to assist, if necessary, Angola and Brazil.

2.6.3 The meeting therefore agreed to the coordination meeting to be held and called ICAO to support States concerned in the implementation process (**Conclusion SAT/15/09**)

Follow up of conclusion SAT14/08: ATS-Voice Numbering Plan for AFI

2.6.4 The meeting discussed the status of implementation of conclusion SAT 14/08 pertaining to ATS-voice Numbering Plan for the AFI region and recognized that no study has been conducted to develop a comprehensive numbering plan in this respect. The meeting noted that, due to the lack of such comprehensive numbering plan, some AFI States are currently using the EUR ATS voice numbering Plan.

2.6.5 The meeting recalled also that a successful implementation of such an ATS voice numbering plan as defined by the recommendation contained within the ICAO Manual on ATS Ground-Ground Voice Switching and Signalling (Doc 9804, Chapter 2 Section 2.3) requires an AFI technical coordinating body to develop the technical study and planning arrangements. The meeting encouraged the States that have already undertaken studies and have been conducting trials to pursue their efforts (**Conclusion SAT/15/10**)

Follow up of conclusion SAT14/09: Trials for extension of ATS-N5 Voice switching protocol

2.6.7 The meeting was reminded that Spain has been successfully conducting the ATS-N5 voice switching protocol for years. It was noted that the implementation of such protocol is strongly linked to the availability of ACCs' VCSS capability to support the technical requirements.

2.6.8 In reviewing the VCSS implementation status, the meeting was provided with information from the ongoing projects currently conducted or planned by Portugal, Brazil and Cape Verde to upgrade their VCSS and participate in the trials with Spain.

2.6.9 The meeting then recommended States to foster the extension of ATS-N5 voice switching protocol (**Conclusion SAT/15/11**)

Follow up of conclusion SAT14/12: ADS Data Sharing

2.6.10 The meeting examined at length this conclusion and focused its attention on the concerns of SAT States in relation to the implementation of ADS Data sharing. It was recognized that most SAT ADS systems are currently being installed and the development of operational procedures is not yet complete. The communication service provision agreements signed between ANSPs and ACCARs service providers to support ADS-C do not include the ADS data sharing mechanism. In addition, the experience learnt from a neighbouring region where ADS is fully operating (NAT) tends to confirm that ADS data sharing is not implemented yet.

2.6.11 Taking into account these concerns, the meeting concluded that it is necessary to let the system meet its maturity status in order to gain enough experience in Data sharing and requested the ATM/WG to provide the CNS/WG with the necessary operational ADS data to be shared (**Decision SAT/15/02**)

Follow up of conclusion SAT14/15: Trials for the interconnection of AMHS systems

2.6.12 Under this agenda item, the meeting reviewed the status of planning and implementation of AMHS in SAT regions. Some SAT States (Argentina, Cape Verde, Portugal and Spain) have already implemented AMHS systems and intend to carry out trials for their interconnection. Other States/Organizations (Brazil and ASECNA) are planning to purchase and install the system.

2.6.13 The secretariat provided the meeting with the statement of the draft conclusion formulated by the CNS/SG/3 meeting (Nairobi, Kenya, 26-30 May 2010) that will be reported to APIRG/17 for the creation of an AFI AMHS Implementation Task Force to conduct and coordinate AMHS implementation in the AFI region.

2.6.14 The meeting agreed to encourage States in their efforts for the implementation of AMHS and systems interconnection thereof (**Conclusion SAT/15/12**)

Follow up of conclusion SAT14TF1/01: Establishment of a CAFSAT Management Committee

2.1.18 The secretariat of the meeting presented the draft Terms of Reference of the CAFSAT Network Management Committee. This draft was developed on the basis of the existing network management committee (SNMC) and supervisory body (NAFISAT). The draft was discussed at length, amended as appropriate and adopted (**Decision SAT/15/03**). The meeting decided that reports of the CAFSAT Committee will be addressed to SAT CNS/WG.

Follow up of conclusion SAT14TF1/02: Flight plans availability in the South Atlantic

2.1.22 The meeting discussed the issue regarding missing Flight Plans in SAT States and noted that with the automation of the systems, the availability of valid flight Plans has become critical to ensure the continuity and the efficiency of ATM sensitive operations.

2.1.23 It was recalled that previous investigation exercises pointed out the Addressing errors as the main cause of missing Flight Plan messages. However, the meeting pointed out the necessity to tackle the issue by conducting a joint in-depth internal and end to end technical and operational investigation (**Conclusion SAT/15/13**)

2.7 Review of AFS performance

2.7.1 Under this agenda, the meeting was provided with the performance results of a portion of SAT AFS (ATS/DS, AFTN). The missing statistical data was due to the lack of a formal AFS performance reporting process in SAT. The secretariat informed the meeting of the draft conclusion of CNS/SG/3 calling for the set up of a secured data base or website to facilitate AFS performance statistics data collection and analysis.

2.7.2 Reviewing the data presented, the meeting agreed that SAT AFS performance was globally satisfactory except for some dysfunctions experienced between Dakar and Sal ACCs for about 4 months during the year 2009. Difficulties due to maintenance personnel coordination was pointed out and the meeting recognized the need to harmonize maintenance operations methodologies in terms of organization, maintenance procedures, and personnel exchange (**Conclusion SAT/15/14**)

2.8 Modernization of CAFSAT Network

2.8.1 The meeting was provided with the status of the ongoing project related to the modernization of Networks in the SAT and its neighbouring regions.

2.8.2 The meeting recognized that the CAFSAT Networks needed to be modernized considering the existing network which may be interconnected to the upgraded CAFSAT (REDDIG, AFISNET, and SADC 2). The meeting also noted that the CAFSAT Network Management Committee (CNMC) gives the opportunity to conduct a comprehensive modernization scheme (**Conclusion SAT/15/15**).

2.9 Implementation of AIDC and OLDI in SAT

2.9.1 The meeting was informed that SAT ACCs have implemented or are implementing the surveillance system with AIDC/OLDI capability. It was noted that one of the advantages of the automation of ATM components is the reduction of human errors in coordination operations. The meeting encouraged SAT States to implement AIDC messages interchange where possible (**Conclusion SAT/15/16**)

Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) Systems

2.10 Harmonization of ADS/CPDLC programmes

- **Review of the Report of the Second SAT FANS 1/A Interoperability Team (SAT/FIT/5)**

2.10.1 The report of the SAT/FIT/5 meeting which was held from 17 to 18 May 2010 in Lisbon, just before the SAT 15 meeting was presented by its Rapporteur. The present meeting reviewed the list of conclusions and decisions thereof and endorsed them (**Conclusion SAT/15/17**). The list of SATFIT/5 conclusions and decisions is shown at **Appendix B** to this paper.

3. Action by APIRG

3.1 The meeting is invited to:

- a) Note the information contained in this paper;
- b) Note the work carried out by the SAT Informal Group as a key interregional mechanism between AFI, EUR, NAM and SAM Regions;
- c) Encourage States and Organizations concerned to provided continued support to SAT
- d) implementation activities; and
- e) Provide the SAT Group with any appropriate guidance for the implementation of ICAO provisions. Ex: conclusion **SATFIT5/5**.

APPENDIX A
LIST OF CONCLUSIONS AND DECISIONS OF THE SAT15 MEETING

Conclusion SAT 1/01: Implementation of Phases 3 and 4 of AORRA Airspace

That States concerned publish by the AIRAC date of 05 July, 2010 a common AIP Supplement for implementing phases 3 and 4 of AORRA airspace by 26 August, 2010.

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Conclusion SAT15/02: Direct Transitions to/from AORRA Airspace

*That a coordination meeting be held by the end of June 2010 between Angola, Brazil, Côte d'Ivoire, Ghana, Sao Tome and Principe, Senegal, ASECNA, Roberts FIR and IATA to discuss the direct transitions to/from AORRA airspace as proposed by IATA in **Appendix D** to this report.*

Note: Ghana accepted the request to host the meeting; date and venue to be confirmed

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Conclusion SAT15/03: Proposed Amendment to doc 7030

*That SAT members forward to the secretariat their comments on the proposed amendment to doc 7030 as shown in **Appendix E** to this report, by the end of June 2010.*

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Conclusion SAT15/04: Operational Procedure

*That Brazil, Cape Verde, Senegal and Spain will implement on AIRAC date 12 January 2011 the operational procedure based on ADS-C/CPDLC reflected in **Appendix F** to this SAT 15 report.*

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Conclusion SAT15/05: Common additional procedures to prevent LHDs

That: SAT/15 Meeting having expressed its concern about the LHDs due to operational errors in ATC unit to unit coordination, implores ACCs to apply the coordination procedures for flight level changes near the common boundaries reflected on their respective LoAs, and decided to propose the modification to ICAO Doc.7030 as follows:

“Supplementary safety procedures for aircraft in cases of air/ground communications problems (radio or CPDLC) and relay with other aircraft is not available.

Procedures for aircraft flying along the EUR-SAM Corridor, aircraft will perform a lateral right offset up to 2 NM in cases where:

- a) Impossible, difficult or incomprehensive radio or CPDLC communications with the relevant ACC after trying to establish the communications at least during 10 minutes;*
- b) Doubts and impossible confirmation of a clearance issued by ATC; and*
- c) When performing an ATC clearance with additional restriction (time to reach the cleared flight level, Mach number, etc.) and the position of the aircraft is 10 minutes or less to the next boundary.*

In all cases, aircraft will inform the ATC about this lateral offset as soon as suitable communications are re-established.”

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Decision SAT 15 01: LHD reporting

That SATMA, as coordinator of LHD Monitoring Team, will send to ACCs involved in one specific deviation the LHD report received, for its investigation.

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Conclusion SAT15/06: Contingency plan for the SAT Area

That South Africa coordinates with other SAT members the development of a comprehensive ATS contingency plan for the SAT airspace based on the existing EUR-SAM corridor contingency plan and in accordance with ICAO Annex 11 provisions, and presents the final draft to the next SAT/16 Meeting.

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Conclusion SAT15/07: Unknown traffic in the South Atlantic

That

- 1) *the SAT Group expresses its concern about the unknown traffic coming to/from Malvinas Islands, Ascension Island and other uncontrolled flights in the South Atlantic, and calls for the involvement of ICAO to find a solution.*
- 2) *Argentina, Brazil and Uruguay agree to hold a coordination meeting to improve operational procedures in order to enhance safety in the area concerned.*

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Conclusion SAT15/08: ATS deficiencies in the SAT Area

That, based on the projected increase in traffic provided by IATA and the deficiencies reported, the SAT group agrees to develop an airspace infrastructure plan along the lines of the Global PBN Plan.

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Conclusion SAT/15/09: Implementation of ATS/DS circuit for Luanda/Atlantico

That:

- 1) *Angola and Brazil hold a technical coordination meeting to conduct the Implementation process of a CAFSAT node in Luanda in order to clear, before the forthcoming SAT meeting, the pending Luanda/Recife ATS/DS circuit deficiency;*
- 2) *ASECNA as team leader of Task 2 of the CNS/WG Work Programme assist, if necessary, Angola and Brazil for the technical study; and*
- 3) *ICAO to continue to support Angola and Brazil by coordinating the implementation process.*

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Conclusion SAT/15/10: ATS-Voice Numbering Plan for AFI

That:

- 1) *APIRG creates an AFI Working Group to conduct the technical study for the development of a global ATS voice numbering plan for the AFI Region and harmonize its implementation frame;*
- 2) *Meanwhile, SAT States be encouraged to pursue their efforts on bilateral ATS voice numbering trials and provide the AFI working group with available relevant material;*
- 3) *ICAO continue to support the development of an ATS voice numbering plan for the AFI Region as stated in the recommendation contained within the ICAO Manual on ATS Ground-Ground Voice Switching and Signaling (Doc 9804, Chapter 2 Section 2.3).*

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Conclusion SAT/15/11: Trials for extension of ATS-N5 Voice switching protocol

That:

SAT States continue their collaborative technical arrangements to conduct trials for extension of ATS-N5 voice switching protocol by adopting the following steps:

- 1) *Spain to provide an updated form containing the technical requirements for VCSSs capability to support ATS-N5 voice switching protocol;*

- 2) *Other SAT States to assess their current VCSSs capability in line with the technical requirements provided by Spain and take into account these requirements when updating their VCSSs and report the assessment results to ICAO; and*
- 3) *ICAO to coordinate the process by compiling the available information to be forwarded to all stakeholders.*

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Decision SAT/15/02: ADS Data Sharing

That:

- 1) *SAT States delay ADS data sharing as stated in conclusion SAT 14/12 and conduct, if necessary, comprehensive complementary studies taking into account the ATM requirements and involving various technical, financial and legal aspects;*
- 2) *The SAT ATM/WG conducts a study and provides the SAT CNS/WG with the operational requirements for ADS data sharing.*

Conclusion SAT/15/12: Implementation and Interconnection of AMHS systems

That:

- 1) *SAT States that have already implemented AMHS systems conduct trials for their interconnection and report to the other stakeholders;*
- 2) *SAT States that have not implemented AMHS systems pursue their effort in modernizing their systems to support AMHS capability taking into account the experience gained by their neighbouring States;*
- 3) *In the framework of regional collaboration, SAT States to report when requested, the results of the trials of interconnection of AMHS systems to AFI AMHS Implementation Task force in order to support AMHS implementation process in the AFI region.*

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Decision SAT/15/03: Adoption of the Terms of Reference of CAFSAT Network Management Committee

That the CAFSAT Network Management Committee (CNMC) Terms of Reference be adopted as presented in [Appendix G](#) to the present report.

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Conclusion SAT/15/13: Investigation of missing Flight Plans

That SAT States set up a consolidated investigation form involving both technical and operational aspects to conduct periodic assessment of missing flight plans.

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Conclusion SAT/15/14: Harmonization of AFS maintenance procedures and AFS statistics data collection

That:

- 1) *SAT States endeavour to agree to minimize the Mean Time Between Failure (MTBF) of AFS systems by harmonizing their maintenance methodologies in terms of maintenance organization, procedures and maintenance personnel exchange;*
- 2) *The statistics of AFS performance be collected and shared among SAT States with copy to ICAO for compilation and analysis.*

Conclusion SAT/15/15: Modernization of CAFSAT Network

That:

- 1) *In the framework of the Terms of Reference of the CAFSAT Management Committee, SAT States develop a joint technical evaluation for a comprehensive modernization and re-engineering of the CAFSAT Network.*
- 2) *The modernization process should ensure a balanced interconnection with existing networks and guarantee end to end operations interoperability.*

Conclusion SAT/15/16: Implementation of AIDC /OLDI in SAT

That SAT States be encouraged to implement AIDC messages interchange where possible, as technical action to reduce human errors in coordination operations between neighbouring ACCs.

Conclusion SAT/15/17: SAT/FIT/5 Report

The SAT/15 Meeting approved the SAT/FIT/5 Report and its conclusions.

APPENDIX B : SAT FIT5 LIST OF CONCLUSIONS

Number	Title
Conclusion SAT FIT 5/1	ADS/CPDLC implementation in the SAT Area That SAT/FIT members provide the Secretariat with ADS-C/CPDLC implementation and interoperability status in order to complete a table by the end of July 2010.
Conclusion SAT FIT 5/2	Participation at SAT FIT meetings That IFATCA and NAT FANS Team be invited to future SAT/FIT meetings
Conclusion SAT FIT 5/3	ADS-CPDLC operations That IATA and ACC units encourage Airlines to increase their level of participation in ADS-C/CPDLC operations in order to enhance safety and efficiency of operations within the SAT and specially the EUR/SAM corridor
Conclusion SAT FIT5/4	FANS1/A CFRA monthly report: That SAT members forward to SATMA the necessary FANS1/A CFRA report on a monthly basis in order to perform the monitoring process as required.
Conclusion SAT FIT 5/5	CFRA That: 1) The requirement for CFRA within the SAT be referred to APIRG for advise; 2) ICAO provides SAT members with guidance to support the cost recovery funding process in terms of global harmonization of the ATM system and improvement of operating efficiency.
Conclusion SAT FIT 5/6	CPDLC message set That: a) In order to minimize the use of free text messages ATS Units ensure that controllers use the preformatted uplink message elements when a specific report is required and; b) Aircraft operators should ensure that flight crew procedures and training includes information concerning the arming and transmission of CPDLC reports
Conclusion SAT FIT 5/7	GOLD That: 1. SAT/FIT members support the introduction of GOLD; 2. PIRGs approve the GOLD.
Decision SAT FIT 5/1	Missing Flight Plans That SAT/15 takes actions to ensure that the issue regarding the missing Flight Plans within the SAT is addressed appropriately
Decision SAT FIT 5/2	CPDLC Harmonization/Standardization Action plan That the Rapporteur forwards to SAT members a draft action plan to be completed by the end of July 2010