

SAT/19 Meeting – Draft Conclusions and Decisions

Conclusions and Decisions

Agenda Item 2: *Air traffic management (ATM)*

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

Conclusion SAT19/01: EUR/SAM Corridor Traffic Data Collection

That:

- Taking into account the necessary traffic data for airspace planning, safety assessment and statistics in the EUR/SAM Corridor, Brazil, Cape Verde, Spain and Senegal will collect the Air Traffic Movement data in a period of six months (Jan-Jun), in accordance with form provided in SATMA website.
- This data shall be sent to SATMA (aariasf@aena.es and satma@aena.es) up to 30th September each year.
- SATMA will use the mentioned Air Traffic Movement data to perform the corresponding Safety Assessment, to be presented in the following year to the SAT Meetings.

Conclusion SAT19/02: LHD

That:

- EUR/SAM Corridor States shall continue to send LHD reports to SATMA on a monthly basis, from 1st to 15th of each month to the following emails: aariasf@aena.es and satma@aena.es.
- SATMA shall provide a feedback about the data sent by EUR/SAM States to the nominated focal points until the last working day of the corresponding month.

Taking into consideration the significant decrease in the number of LHD reports sent to SATMA since SAT/16 meeting, EUR/SAM Corridor States shall make an investigation about a possible deficiency on ACC's LHD Reporting.

Conclusion SAT19/03: Amendment no. 6 to the Procedures for Air Navigation Services Air Traffic Management (Doc 4444)

That:

- a) SAT states analyze and apply, as far as possible, the Amendment no. 6 to the Procedures for Air Navigation Services Air Traffic Management (Doc 4444), in order to:
 - Amend the national regulations.
 - Amend the Aeronautical Information Publications.
 - Amend the ATS Units Procedures.
 - Amend the Air Crew Procedures.
 - Amend the ANS Safety Oversight Protocols.
 - Train the Air Crew, Air Traffic Controller and Aeronautical Information Operators.
 - Evaluate and change, if necessary, the ATC Systems.
- b) SAM and WACAF Offices coordinate the presentation of detailed information regarding the application of the Amendment no. 6 to the Procedures for Air Navigation Services Air Traffic Management (Doc 4444) to the SAT/20 Meeting.
- c) SAM and WACAF Office analyze the feasibility of holding a specific training on the application of the more complex portions of the Amendment no. 6 to the Procedures for Air Navigation Services Air Traffic Management (Doc 4444) and present the results to the next SAT 20 Meeting.

Conclusion SAT19/04: AF 447 Accident Final Report

That:

Taking into consideration the Safety Recommendations from AF 447 Accident Final Report:

- a) **SAM and WACAF Offices coordinate the development of a Doc 7030 (Regional Supplementary Procedures) amendment proposal in order to mandate the use of ADS-C/CPDLC in the South Atlantic for Aircraft already equipped with FANS 1/A systems.**
- b) **Brazil and Senegal have already agreed in the content of the letter of agreement between DAKAR/SENEGAL RCC AND ATLÂNTICO/BRAZIL RCC. The means to sign the final version of the letter of agreement have been also established.**
- c) **Brazil and South Africa finalize and sign the draft letter of agreement between JOHANNESBURG/SOUTH AFRICA RCC AND ATLÂNTICO/BRAZIL RCC, proposed by Brazil;**
- d) **Brazil and French Guyana finalize and sign the draft letter of agreement between CAYENNE/FRENCH GUIANA RCC AND ATLÂNTICO/BRAZIL RCC, proposed by Brazil;**
- e) **Brazil and Angola finalize and sign the draft letter of agreement between LUANDA/ANGOLA RCC AND ATLÂNTICO/BRAZIL RCC, proposed by Brazil;**
- f) **SAT States are encouraged to consider the draft letter of agreements developed by Brazil, in order to develop and sign similar letter of agreements between all South Atlantic RCCs.**

Conclusion SAT19/05: Memorandum of Understanding on Cooperation in Search and Rescue in the EUR/SAM Corridor

That:

- a) **EUR/SAM Corridor States provide comments about draft Memorandum of Understanding on Cooperation in Search and Rescue in the EUR/SAM Corridor to Senegal and to SAM and WACAF Offices, by October 2014.**
- b) **Senegal send the draft Memorandum of Understanding on Cooperation in Search and Rescue in the EUR/SAM Corridor to the corresponding States, through the appropriate mechanisms, taking into consideration the comments received, in order to be formalized.**

2.3 Follow up on operations in the AORRA airspace

Conclusion SAT19/06: Implementation of new waypoints onto Dakar and SAL ACCs' border and its mixture with the use of geographical coordinates

That:

- a) IATA encourage the airlines to use the additional entry/exit waypoints to facilitate crossing Dakar and Sal FIRs border for aircraft operating random routing, on west of UN741, implemented on February the 5th, 2014.
- b) Dakar and SAL ACCs' develop and publish procedures on using the mentioned additional entry/exit waypoints in random routing area on west of UN741, taking into consideration the following:
 - Mandate the use of published entry/exit waypoints for non-equipped ADS-C/CPDLC aircraft;
 - Allow the use of any entry/exit waypoints, based on geographical coordinates, for equipped ADS-C/CPDLC aircraft.
- c) Brazil, French Guyana and Senegal analyze the feasibility of solving the issue regarding the operations passing through a common waypoint border of Dakar, Atlantico and Cayenne FIRs (MOVGA - 07°40'N 037°30W).
- d) Cape Verde, Portugal, Senegal and Trinidad Tobago analyze the feasibility of solving the issue regarding the operations passing through a common waypoint border of Dakar, Piarco, Sal and Santa Maria FIRs (TUTLO -17°40'N 035°00'W)

Conclusion SAT19/07: Large Height Deviation and unknown traffic in the South Atlantic

That:

- The SAT Group expresses its concern about the unknown traffic and the increasing number of Large Height Deviation in the South Atlantic airspace, due to the lack of coordination and information of the flights coming from and going to Falkland Islands (Malvinas)*.
- The SAT Group recalls the need that all ATS Units involved in the South Atlantic airspace provide information to their respective ACCs in accordance with the international arrangements in force (among them, the Letters of Operational Agreements) and with the applicable ICAO rules and procedures, in order to enhance the coordination among the FIRs involved.

Conclusion SAT19/08: Additional Waypoints to increase flexibility between West Africa and North America.

That:

French Guyana, Senegal and Trinidad Tobago implement the proposed new waypoints from IATA (Appendix C, part I SAT 18 Meeting), on the following AIRAC effective date: 05 February 2015.

2.4 ATS Contingency planning

Conclusion SAT19/09: Contingency Planning

That:

SAT States review the Contingency Plan, presented in SAT17 by South Africa, and send comments to Martinc@atns.co.za by 30th November 2014. To this regard, States also shall notify if there is no comments to be provided.

Conclusion SAT19/10: Ascension Island FHAW/ASI and its criticality to airline operations**That:**

SAM and WACAF Offices coordinate the analysis of the feasibility of using FHAW/ASI to ETOPS operations, including, among others aspects:

- **Publication of the 30 hours TAFs for FHAW/ASI.**
- **Determine how operationally important data concerning FHAW/ASI can be provided to all stakeholders to ensure safe operations.**

Conclusion SAT19/11: New Airspace Concept in the EUR/SAM Corridor**That:**

An EUR/SAM corridor Airspace Concept Task Force be formed with representatives of Brazil, Cape Verde, Senegal, Spain, IATA, WACAF ICAO Office and SAM ICAO Office, in order to:

- **Analyze the Roadmap for EUR/SAM Corridor proposed by Spain (WP 10 - SAT/19);**
- **Develop an Airspace Concept to EUR/SAM Corridor, based on application of RNP 4, ADS-C and CPDLC;**
- **Analyze the feasibility of proposing a DOC 7030 Amendment to mandate the use of RNP 4, ADS-C and/or CPDLC;**
- **Work through Electronic Correspondence and Teleconferences;**
- **Present the results to the SAT 20 meeting.**

Agenda Item 3: *Communications, navigation and surveillance (CNS)*

3.1 Follow up of SAT/18 Conclusions pertaining to the CNS field

Conclusion 19/12: Implementation of the ATS/DS Circuit between Luanda and Atlántico ACCs

That;

Angola (ENANA) expedite the completion of the ongoing installation of the CAFSAT VSAT project and establish the ATS/DS voice coordination circuit between Luanda and Atlántico ACCs no later than 31 December 2014.

Conclusion 19/13: Implementation of ATS voice switching and signaling systems

That;

SAT States/Organizations who have not done so:

- a) Update in the attached Table 1 the information on their VCCs' capability to support ATS voice switching and signaling protocols (N-5 and VoIP) no later than 15 September 2014;**
- b) Conduct studies and bilateral trials in order to ensure an efficient and cost effective implementation of ATS voice switching and signaling systems;**

Report quaternary to Argentina Team Leader of Task 8 of the work programme of the SAT CNS/WG

Conclusion 19/14: Mitigation of the loss of Flight Plans

That;

As a matter of urgency, SAT members who have not done so (Table 2 refers):

- a) Establish no later than 31 October 2014, local Missing Flight Plan Investigation Working Groups involving all stakeholders: ATCs, AIM, COM, Maintenance personnel..., as called upon by SAT/18 (Decision 18/03) and nominate Focal Points responsible of the coordination of the Group activities;**
- b) Implement the procedure for the investigation on missing Flight Plans adopted by SAT/18 (Decision 18/02) (Appendix XX refers) and;**
- c) Report quaternary to ASECNA, Team leader of Task 3 of the Work Programme of the SAT CNS/WG on the results of the mitigation action taken to minimize the loss of Flight Plans.**

3.2 Review of the Conclusions/Decisions of CNMC/4 meeting

Decision 19/15: Adoption of the Conclusions and Decisions of CNMC/4 meeting.

That:

The Conclusions and Decisions of the 4th Meeting of the CAFSAT Network Management Committee (CNMC/4) are adopted as attached in Appendix XXXX.

3.2 Improvement of CNS systems in the SAT Region (AMHS,AIDC)**Conclusion 19/16: Implementation of AMHS in the SAT ACCs**

That;

Considering the level of implementation of AMHS as attached in Table 3, SAT ACCs establish Memoranda of Understanding to conduct trials and implement AMHS in line with the regional EUR/NAT/SAM/AFI ANPs and report to SAT 20 meeting.

Conclusion 19/17: Implementation of AIDC in the SAT ACCs

That;

Taking into consideration the capability of ATM automated systems for AIDC functionality attached in Table 4, SAT ACCs carry out studies on ATS automated coordination requirements and on potential expected benefit in order to conduct trials and implement when justified, AIDC operation.

Agenda Item 6: Future work programme**Conclusion 19/18: Terms of reference and work programme of the SAT ATM & CNS/WGs**

That;

The Term of reference and Work Programme of the SAT ATM & CNS/WGs is adopted as attached at Appendix XXXX.

Table 1**Table of VCCs capability to support N-5 and/or VoIP**

ACC	ATS N-5 Capable	VoIP Capable	Comments
Abidjan	No	?	
Accra	No	Yes	To be confirmed
Canarias	Yes	?	
Casablanca	?	Yes	
Cayenne	?	?	
Dakar	No	Yes	
Ezeiza	No	No	Project to purchase a new VCC with N-5 & VoIP
Johannesburg	?	?	
Lisbon	Yes	End of June 2015	
Luanda	Yes	Yes	
Montevideo	yes	Yes	
Nouakchott	No	No	Project to purchase a new VCCs with VoIP
Piarco	No	Yes	To be confirmed
Atlántico	No	Yes (31 December 2014)	
Sal	Yes	No	
Santa Maria	End of December 2015	End of December 2015	

Table 2**Table of Establishment of Local investigation Groups**

ACC	Working Groups Missing Flight Plans Investigation	Comments
Abidjan	Implemented	Coordination with adjacent ATCs. Monthly reporting
Accra	Implemented	Coordination with ASECNA
Canarias	?	
Casablanca	?	
Cayenne	?	
Dakar	Implemented	
Ezeiza	Implemented	Coordination with adjacent centres by ANSP (DGCTA)
Johannesburg	implemented	
Lisbon	Not implemented	Trials conducted years ago. Non-technical causes
Luanda	Not implemented	
Montevideo	Informal Group	
Nouakchott	Implemented	
Piarco	Implemented	Implementation of a centralized FPLs investigation system
Atlántico	Informal Group	Coordination with Dakar. Wrong addresses
Sal	Implemented	
Santa Maria	Not implemented	

Table 3**Table of Table of systems Capability to support AMHS**

ACC	AMHS Capable	Comments
Abidjan	Planned for 2015/2016	
Accra	Yes	
Canarias	Yes	
Casablanca	?	
Cayenne	?	
Dakar	Yes (under installation)	
Ezeiza	Yes	Supplementary info in WP 08
Johannesburg	Yes	
Lisbon	Yes	
Luanda	yes	
Montevideo	Yes	
Nouakchott	Yes (under installation)	
Piarco	Yes	
Recife	Yes	
Sal	Yes	
Santa Maria	No	

Table 4**Table of systems Capability to support AIDC**

ACC	AIDC Capable	Comments
Abidjan	Yes	
Accra	Yes (before end of 2014)	
Canarias	?	
Casablanca	?	
Cayenne	?	
Dakar	Yes	
Ezeiza	Yes	Supplementary info in WP 08
Johannesburg	Yes	
Lisbon	No	
Luanda	Yes	
Montevideo	Yes	
Nouakchott	Yes	
Piarco	Yes	
Recife	Yes	
Sal	No (EUR OLDI used)	
Santa Maria	No (EUR OLDI used)	

APPENDIX

TERMS OF REFERENCE, WORK PROGRAMME AND COMPOSITION OF THE SAT ATM WORKING GROUP (ATM/WG)

<p>1. Considering the evolutionary implementation of CNS/ATM systems in areas of routing AR1/HA1 and AR2/HA8 <i>as defined in the Global Air Navigation Plan (ICAO Doc 9750)</i>, the Task Force should explore ways and means to achieve further enhancements in ATM capacity and aeronautical telecommunications, and to implement CNS/ATM elements taking into consideration the timescales agreed for these areas of routing. It will be guided by the requirements identified in the AFI and CAR/SAM CNS/ATM Implementation Plans.</p> <p>2. <i>Note: The Task Force will adopt a pragmatic approach and may set up auxiliary bodies to carry out specific tasks, as necessary.</i></p>		
WORK PROGRAMME		
TASK No.	SUBJECT	TARGET DATE
1.	Analyze ATM deficiencies and make proposals for their elimination.	Continuous
2.	Monitor pre-implementation/post-implementation safety assessments (as applicable) for RVSM and RNP operations in the South Atlantic, including adjacent areas.	Continuous
3.	Study and evaluate RVSM, RNP/RNAV procedures applicable in the AFI/CAR/SAM and EUR/SAM Interface areas.	Continuous
4.	Monitor flight plan availability and propose appropriate corrective measures.	Continuous
5.	Oversee FANS 1/A system performance monitoring to ensure that the system continues to meet safety and interoperability requirements and that operations and procedures are working as specified.	Continuous
6.	Carry out studies on the establishment of a central reporting agency (CRA) and related institutional issues	Completed
7.	Harmonize ADS/CPDLC programmes developed by SAT States/FIRs and analyze cost-benefit aspects related to their implementation.	Continuous
8.	Maintain ADS/CPDLC operational guidance material updated.	Continuous
9.	Conduct studies related to the implementation of the Global ATM Operational Concept and other enabling concepts within the SAT area.	Continuous
10.	Continue studies related to the extension of the AORRA airspace.	SAT 18
11.	Monitor the implementation of the ICAO New Flight Plan in the SAT Region.	15 November 2012
<ul style="list-style-type: none"> • Note: The ATM/WG should take appropriate action on pressing issues and submit its proposal to the SAT Group meeting. 		

COMPOSITION

- *The Task Force of multi-disciplinary nature shall comprise of experts from States responsible of FIRs in AFI and SAM routing areas AR1/AH2 and AR2/AH8 as defined in the Global Air Navigation Plan (ICAO Doc 9750), and experts from adjacent FIRs and international organizations.*
- **Rapporteur:** *Spain*
- *Tasks Nos. 5, 7 and 8 are assigned to the SAT established FANS-1/A Interoperability Team (FIT) with South Africa as Team Leader.*
- **Working arrangements:** *The ATM/WG should complete its work and submit its proposal to the SAT Group. The ATM/WG should work through electronic correspondence prior to meetings.*

TERMS OF REFERENCE, WORKING PROGRAMME AND COMPOSITION OF THE SAT STUDY GROUP ON THE IMPROVEMENT OF THE AIRSPACE STRUCTURE IN THE EUR/SAM CORRIDOR (IAS/SG)

<ul style="list-style-type: none"> To develop a strategy for the short-term, mid-term and long term for the implementation of a new airspace structure in the EUR/SAM Corridor with the end to improve the capacity and efficiency of the operations and to meet users' needs. 		
WORK PROGRAMME		
TASK No.	SUBJECT	TARGET DATE
1.	Analyze the current operational situation within the EUR/SAM Corridor taking into account statistics and users needs.	Completed
2.	Explore ways and means to restructure the EUR/SAM Corridor airspace	Completed
3.	Develop a short term plan using the current separation standards based on RNP10, including the implementation of new ATS routes.	Completed
4.	Analyze the advantages of introducing unidirectional ATS routes.	Completed
5.	Study the feasibility of implementing RNP4, using ADS/CPDLC functionalities.	SAT/18
6.	Continue studies to implement a random routing area, using ADS/CPDLC functionalities.	SAT/18
7.	Develop necessary cost benefit analysis for the different options.	SAT/18
8.	Establish means to develop the safety assessment for the different implementation options.	SAT/18
9.	Develop an action plan for the different implementation options.	SAT/18
COMPOSITION		
<ul style="list-style-type: none"> Brazil, Cape Verde, France, Portugal, Senegal, Spain, Trinidad and Tobago, United States, ASECNA and IATA. Rapporteur: Spain. 		
<ul style="list-style-type: none"> Working arrangements: <i>The IAS/SG should take the appropriate action to complete its work and submit its proposals to the next meeting of the SAT Group. The IAS/SG should work through electronic correspondence prior to meetings.</i> 		

TERMS OF REFERENCE, WORK PROGRAMME AND COMPOSITION OF THE SAT CNS WORKING GROUP (CNS/WG)

1. Considering the CAR/SAM and AFI Air Navigation Plans, the SAT CNS/WG should explore ways and means of achieving further enhancements in ATM efficiency within in areas of routing AR1/HA1 AR-2/HA8 *as defined in the Global Air Navigation Plan (GANP ICAO Doc 9750)*, by resorting to emerging technologies and, in particular, by taking advantage of rationalization, integration and harmonization of systems where appropriate.
2. Implementation of new systems should be sufficiently flexible to accommodate existing and future services in an evolutionary and cost-effective manner.
3. The associated institutional arrangements shall not inhibit competition among service providers complying with relevant ICAO Standards, Recommended Practices and Procedures.

WORK PROGRAMME

TASK No.	SUBJECT	TARGET DATE
1.	Analyze CNS deficiencies and make proposals for their elimination.	Continuous
2.	Review the report of the CAFSAT Network Management Committee	Continuous
3.	Undertake investigations on the lack of flight plans, including individual cases, with emphasis on the aeronautical fixed telecommunication network (links, switching centres, routing directory and transit time statistics).	Continuous
4.	Carry studies and make proposals to achieve end-to-end interoperability of ATM applications, in accordance with the ATM global operational concept.	SAT/20
5.	In accordance with CNMC conclusions and decisions evaluate the feasibility of using existing or emerging digital VSAT networks to support ATS data link applications in an ATN environment.	Continuous
6.	Considering the implementation time-frames in the AFI and SAM CNS/ATM implementation plans, address cost-benefit aspects for the use of CNS/ATM applications (as required).	Continuous
7.	In coordination with SAT ATM/WG, share relevant technical aspects of different ADS/CPDLC Systems to be implemented by SAT States addressing issues regarding work methodology, procedures, data interchange, maintenance, etc.	SAT/20
8.	Analyze all aspects related to the implementation of ATS Voice switching and signaling protocols (ATS-N5, VoIP) in the SAT area in accordance with guidance material contained in ICAO Relevant documents	SAT/20

COMPOSITION

- The CNS/WG being of multi-disciplinary nature shall comprise experts from States responsible of FIRs in the area concerned, experts from adjacent FIRs and international organizations and the aeronautical industry.
- **Rapporteur:** Senegal.
- **Task Team leaders:** ASECNA (Tasks. Nos.3 and 4), South Africa (Ghana) (Task No.7), Argentina (Task 8)
- **Working arrangements:** The CNS/WG should complete its work and submit its proposal to the SAT. The CNS/WG should work through electronic correspondence prior to meetings.

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