



ICAO

Second Meeting of the Steering Group for the continued Improvement of Air traffic Services over the South Atlantic (SAT/SG2)

Dakar, Senegal, 9-12 December 2024

Agenda Item 3: Review of the subsidiary bodies' activities.

3.2 Activities of the SAT IMG

Outcomes of the third and fourth meetings of the SAT Implementation Management Group SAT IMG

(Presented by the Secretariat)

SUMMARY	
This working paper presents the outcomes of the SAT IMG/03 and SAT IMG IMG/04 meetings for consideration.	
Action by the Meeting is in paragraph 3.	
Reference	SAT Handbook
<i>Strategic Objectives</i>	A: Safety B: Capacity and Efficiency E: Environment protection

1 INTRODUCTION

- 1.1 The third meeting of the South Atlantic Implementation Management Group (SAT IMG) was organized, thanks to the kind invitation of the Portuguese Air Navigation Service Provider (NAV Portugal), from 5 to 8 February in Santa Maria (Azores), Portugal. The full report of SAT IMG/03 meeting is provided at Appendix A.
- 1.2 The fourth meeting of the South Atlantic Implementation Management Group (SAT IMG) was organized, thanks to the kind invitation of ASECNA, from 7 to 11 October 2024 in Abidjan, Côte d'Ivoire. The draft report of SAT IMG/04 meeting (deadline for comments is 12 December 2024) is provided at Appendix B.
- 1.3 The PBCS implementation checklist for the EUR/SAM Corridor is also provided at Appendix C. The SAT Doc 002 (SAT ATM Contingency Plan), SAT Doc 003 (Application of Separation Minima in the EUR/SAM Corridor) and the SAT OPS Bulletin 2024_001 (CPDLC logon issues for flights especially in the Dakar –Abidjan-Accra FIRs) are attached to this WP.

2 DISCUSSION

SAT IMG/03

- 2.1 The SAT IMG/03 discussed the work of the Performance Based Communication and Surveillance (PBCS) implementation Project Team, started the work on a seamless airspace data table (information on capabilities of the oceanic flight information regions (FIR)s or portions of oceanic airspace for all States within the South Atlantic area) which will be used as a baseline for a SAT service development roadmap, reviewed the IATA SAT operational strategy and analysed the study results for the change of the ATS route UN866 to a bi-directional ATS Route within the EUR/SAM (Europe to/from South America) corridor.
- 2.2 As a major milestone the SAT IMG/03 endorsed the SAT Contingency Plan (SAT Doc 002, 1st edition, February 2024), which provides harmonized ATM contingency arrangements for flights in the SAT area.
- 2.3 Participants were invited to visit the Santa Maria Oceanic Area Control Center; and NAV Portugal prepared a simulation for the EUR/SAM corridor (with PBCS and new PANS ATM separation standards) to showcase the developments in the NAT interface area.
- 2.4 The SAT IMG/03 closed multiple pending decisions & action items and agreed to 7 new decisions and 6 new actions for completion until the next meeting,

SAT IMG/04

- 2.5 The SAT IMG/04 discussed the work of the Performance Based Communication and Surveillance (PBCS) implementation Project Team and endorsed the PBCS Implementation checklist for the EUR/SAM Corridor from the ESCIT. The Group reviewed the State reports and agreed to several Action Items to further support the implementation of AMHS and AIDC. The implementation of the Mach Number Technique for the EUR/SAM corridor was finalized with Brazil declaring its readiness for Nov 2024.
- 2.6 The delineation of the SAT area was discussed, and it was agreed to send out a State Letter requesting States to confirm their FIR boundaries, to define an operational geographical line (LAT LONG coordinates) between domestic and oceanic airspace and to provide vertical limits and airspace classifications for airspace to be included in the SAT Area.
- 2.7 The Group discussed a proposal from SATMA to develop PBCS Monitoring and Reporting Guidance Material (in accordance with the PBCS Manual and NAT Doc 011) for the EUR/SAM Corridor (phase 1), which will be coordinated amongst the involved RMAs and presented as a new SAT Document at the next SAT IMG/05 meeting.
- 2.8 In accordance with the SAT IMG 03/06 Decision, the planned changes (dualization) to the ATS Route N/UN866 within the EUR/SAM (Europe to/from South America) corridor will be implemented on AIRA 23 JAN 2025 by all 4 involved States.
- 2.9 The SAT IMG together with the SAT DMO reviewed the SAT Contingency Plan (SAT Doc 002) which provides harmonized ATM contingency arrangements for flights in the SAT area and a new version (2nd edition, November 2024) was endorsed by Group.

- 2.10 Based on the work from the ESCIT, a new SAT Doc 003 (Application of Separation Minima in the EUR/SAM Corridor) was endorsed by the Group, which is like NAT Doc 008. The SAT Doc 003 contains definitions, general rules pertaining to the application of separation minima, and the different separation minima in the vertical, lateral, and longitudinal planes applicable to aircraft operating in the EUR-SAM Corridor.
- 2.11 In response to the SAT IMG Decision 03/05 (Development of a SAT OPS to address the CPDLC logon issues for flights especially in the Dakar –Abidjan-Accra FIRs as a mitigation measure for the presented safety aspects), a drafting group session was held during the SAT IMG and a new SAT OPS Bulletin was developed and endorsed.
- 2.12 The AFI RMA presented their Large Height Deviation (LHD) reporting challenges for States in the SAT Area and SAT IMG endorsed specific action to enhance LHD reporting
- 2.13 Following a presentation from the United States, the SAT IMG approved the development of specific safety occurrence reporting (i.e. for LHDs, LLDs, and LLEs) guidance material for ANSPs and aircraft operators, which will be presented as a new SAT Document for adoption at the SAT IMG/05 meeting in April 2025.
- 2.14 A presentation on the SAR activities of Côte d'Ivoire resulted in a SAT IMG discussion on the strengthening of international SAR collaboration among the SAT Area States
- 2.15 The SAT IMG/04 closed multiple pending decisions & action items and agreed to 8 new decisions and 7 new actions for completion until the next SAT IMG/05 meeting.
- 2.16 The SAT IMG/05 meeting will be organized from 7 to 11 April 2025, venue to be confirmed.

SAT IMG ACTION ITEM LIST

ID #	ACTION	REMARKS	WHO	WHEN
R-01	Provide State/ANSP Reports including traffic figures and information on implementation activities.	SAT IMG/1 SoD,	All SAT IMG members	Every meeting
R-02	In accordance with the detailed AIDC implementation activity plan for the SAT Region (Appendix X) present updates on AIDC implementation to the SAT IMG	SAT IMG/1 SoD, para. 2.3	Secretariat SAT IMG members	Every meeting
R-03	SATMA, upon request from SAT members, to create specific use case scenarios which would support implementation initiatives in the SAT Area	SAT IMG/2 SoD	SAT IMG members	if requested

ID #	ACTION	REMARKS	WHO	WHEN
R-04	Collect data on aeronautical mobile services frequency allocation and report to the SAT IMG at each of its sessions	SAT SG/01-03R	SAT IMG members	Every meeting as part of State ANSP report
R-05	Spain /SATMA presents traffic figures for the EUR/SAM corridor with traffic values from the past year (Y-1), the actual/current year (Y) and the next year (Y+1)	SAT IMG/3 SoD	SATMA	Every meeting, with DDR data
01-04	Report back on the technical solutions which support the implementation of AMHS and present updates on completed implementation	SAT IMG/1 SoD, Para. 2.12	Secretariat SAT IMG members	SAT IMG/05
01-07	Following the assessment of the current implementation activities, prepare a SAT Service Development Roadmap for the coordinated harmonised implementation of operational improvements from 2024 onwards	SAT IMG/1 SoD, Para. 2.12	Secretariat SAT IMG members	After SAT delineation SAT IMG/05
02-01	Based on the SAT Area description in the Draft SAT Doc002, develop a map of the SAT Area (including EUR/SAM corridor and AORRA) The delineation of the SAT Area be coordinated between SAT IMG and SAT SOG relevant project teams	SAT IMG/2 SoD SAT SG	Secretariat SAT IMG members	31 OCT 2024 15 NOV 2024
02-02	Request the AIM/SWIM Team of the EUR Region to share best practices and guidance on the AMHS implementation	SAT IMG/2 SoD	Secretariat	SAT IMG/05

ID #	ACTION	REMARKS	WHO	WHEN
02-06	Collect all the information from State Reports & WPs and develop consolidated AMHS and AIDC implementation status tables	SAT IMG/2 SoD	Secretariat	SAT IMG/05
03-02	Based on the report from SATMA, verify the correct flight plan filing in F10 and F18 for RCP240 and RCP180 with aircraft operators in the EUR/SAM corridor	SAT IMG/3 SoD	SATMA IATA	SAT IMG/05
03-03	Following the approval by the SAT IMG, engage with the SAT SOG to ensure that the post-implementation monitoring task (E-1) will include the involved RMAs	SAT IMG/3 SoD PBCS IS PT outcome and written consultation	PBCS IS PT Secretariat SAT SOG	30 June 2024
03-04	ASECNA to make a case study on the high numbers of aircraft in the alert phases and reach out to neighboring FIRs if they have similar issues in remote/lower areas of their FIRs	SAT IMG/3 SoD	ASECNA SAT IMG members	SAT IMG/04
03-05	With all LoAs on the MNT being signed by the involved ANSPs, notify the ICAO Secretariat of the actual implementation date	SAT IMG/3 SoD	ASECNA Spain Cabo Verde Brazil	SAT IMG/04 SBAO by December 24
03-06	SAT ANSPs are invited to provide data on the flight level allocation for flights within the EUR/SAM corridor	SAT IMG/3 SoD	SAT IMG members	SAT IMG/05
04-01	SAT ANSPs to collect data on GNSS Interference (jamming/spoofing) and share information at next SAT IMG	SAT IMG/4 SoD, Para.	Secretariat SAT IMG members	SAT IMG/05

ID #	ACTION	REMARKS	WHO	WHEN
04-02	ASECNA to support Ghana in the finalization of the AIDC implementation (LoA signing) with Ouagadougou, Niamey and Brazzaville	SAT IMG/4 SoD, Para.	ASECNA Ghana Secretariat	SAT IMG/05
04-03	After implementation of MNT in the EUR/SAM corridor, collect data on the operational benefits and present the initial results at SAT IMG	SAT IMG/4 SoD, Para.	ASECNA Spain Cabo Verde Brazil	SAT IMG/05
04-04	As follow up to 03-03, a working paper should be prepared for upcoming APIRG to expand the scope of the ARMA mandate so that the SAT Area (oceanic) airspace can be included	SAT IMG/4 SoD, Para.	Secretariat ARMA	SAT IMG/05
04-05	Support Côte d'Ivoire in the strengthening of international SAR collaboration and signing of MoUs	SAT IMG/4 SoD, Para.	Secretariat SAT States	SAT IMG/05
04-06	Review and comment on the proposed changes from SAT DMO to the SAT Doc 001 Handbook	SAT IMG/4 SoD, Para.	Secretariat RMAs IMG /SOG Chairs	31 OCT 2024
04-07	Following the publication of SAT OPS Bulletin 2024_001, present feedback on the CPDLC logon issues	SAT IMG/4 SoD, Para.	Secretariat ASECNA Ghana Cote d'Ivoire	SAT IMG/05

SAT IMG DECISIONS

Reference/Title	Description	Comments	Status
SAT IMG/02-1	That, a Project Team be established in order to develop a combined implementation plan, task list and timelines/action items, which will support the harmonized implementation of PBCS and the use of the related PANS-ATM separation minima in the South Atlantic.	<ul style="list-style-type: none"> - State Letter for nominations sent, series of virtual meetings - PT report presented at SAT IMG/03 - PBCS implementation plan integrated into ESCIT activities with phase 1 for EUR/SAM corridor - PT will be reactivated for phase 2 (whole SAT Area) 	On Hold
SAT IMG/03-1	That, in support of the various AIDC implementation activities, a technical expert meeting (virtual) be organized in May 2024 with participation of SMEs from the ATM System manufactures to discuss interoperability issues which currently prevent the successful implementation of AIDC between the involved ACCs/OACCs	<ul style="list-style-type: none"> Invite all SMEs for a virtual meeting in Q1/2025 Develop an AIDC follow up action plan Present updates at SAT IMG/05 	Ongoing
SAT IMG/03-2	That the SAT IMG invites all identified ANSPs to collaboratively coordinate the conduct of AIDC pre-implementation assessments and to determine/develop a detailed AIDC implementation roadmap for the next SAT IMG meeting	<ul style="list-style-type: none"> Develop an AIDC implementation roadmap for the involved FIRs Present results at SAT IMG/05 	Ongoing
SAT IMG/03-3	That the SAT IMG supports the creation of a seamless airspace data table containing information on capabilities of the oceanic flight information regions (FIR)s or portions of oceanic airspace for all States within the South Atlantic area	<ul style="list-style-type: none"> Reference material for the SAT Service Development Roadmap Present a new version of the xls file at SAT IMG/05 	Ongoing
SAT IMG/03-4	That the SAT IMG take the appropriate actions to include relevant elements from the IATA SAT operational strategy into the SAT service development roadmap	<ul style="list-style-type: none"> Reference material for the SAT Service Development Roadmap Present an update at SAT IMG/05 	Ongoing

Reference/Title	Description	Comments	Status
SAT-IMG/03-5	That, in coordination with the SAT-DMO, a SAT OPS Bulletin should be developed to address the CPDLC logon issues for flights especially in the Dakar—Abidjan—Accra FIRs as a mitigation measure for the presented safety aspects	<p>Series of virtual expert meetings with SMEs from ANSPs and IATA</p> <p>Drafting of a SAT OPS Bulletin</p> <p>Coordination with SAT SOG, written SAT IMG approval process</p> <p>Publication of SAT OPS Bulletin before SAT IMG/04</p>	Completed
SAT IMG/03-6	That the SAT IMG endorses the change of the ATS Route UN866 to a bi-directional ATS route and invite all members from the EUR/SAM corridor, within the framework of the ESCIT, to finalize the implementation activities (e.g. additional simulations, required safety assessments, ATCO training, airspace users awareness) and change their national AIPs for a common AIRAC implementation date before the end of 2024 accordingly	<p>Finalize implementation activities within a series of ESCIT meetings</p> <p>Present updates at SAT IMG/04</p> <p>ASECNA will confirm readiness for implementation AIRAC 23 JAN 2025 before 21 OCT 2024</p>	Ongoing
SAT-IMG/03-7	That the SAT IMG endorses the SAT Contingency Plan (SAT Doc-002, 1st edition, February 2024)	<p>Publication of SAT Doc-002 via ICAO SL</p> <p>Promulgation of SAT Doc-002 by all SAT members</p> <p>Coordinate with SAT DMO the next version of SAT Doc-002 and present it at SAT IMG/04 for approval</p>	Completed
SAT IMG/04-1	That the SAT IMG endorses the PBCS implementation plan (implementation date of 2026) checklist for the EUR/SAM Corridor as presented by ESCIT	<p>- Continuous update of the PBCS implementation plan at ESCIT meetings</p> <p>- Presentation of updates at SAT IMG/05</p>	New

Reference/Title	Description	Comments	Status
SAT IMG/04-2	<p>That the SAT IMG request SAT States to:</p> <ol style="list-style-type: none"> confirm their FIR boundaries as outlined in the WP06 xls file, define an operational geographical line (LAT LONG coordinates) between domestic and oceanic airspace, provide vertical limits and airspace classifications for airspace to be included in the SAT Area 	<ul style="list-style-type: none"> - Individual messages to SAT States by 18 OCT 2024 - States to report back by 15 NOV 2024 - Initial update at SAT SG/02 - Discussions on phase 2 and PT at SAT IMG/05 	New
SAT IMG/04-3	<p>That the SAT IMG invites SATMA to develop PBCS Monitoring and Reporting Guidance Material (in accordance with the PBCS Manual and NAT Doc 011) for the EUR/SAM Corridor (phase 1) and coordinate the draft with the involved RMAs.</p>	<ul style="list-style-type: none"> - Series of virtual expert meetings (led by SATMA) with SMEs from ANSPs , CAAs and RMAs - Drafting of a new SAT Doc 00X - Presentation of the SAT Doc 00X for discussion at SAT IMG/05 - Coordination of the new SAT Doc with SAT DMO 	New
SAT IMG/04-4	<p>That SAT IMG invites the Secretariat to send out a State Letter to all SAT Area States urging them to use the available guidance material (in FR and EN languages) so that LHD reporting can be enhanced.</p> <p>That SAT IMG invites ARMA to conduct LHD reporting webinars for States in the SAT Area which are not in compliance with their reporting requirements</p>	<ul style="list-style-type: none"> - State Letter with LHD guidance material to be send before APIRG - Series of ARMA webinars for individual SAT States - Report back to SAT IMG/05 	New
SAT IMG/04-5	<p>That, in coordination with the SAT DMO, a new SAT Document with specific safety occurrence reporting guidance material (i.e. for LHDs, LLDs, and LLEs) for ANSPs and aircraft operators be developed.</p>	<ul style="list-style-type: none"> - Series of virtual expert meetings (led by the FAA) with SMEs - Drafting of a new SAT Doc 00X 	New

Reference/Title	Description	Comments	Status
		- Presentation of the SAT Doc 00X for discussion/approval at SAT IMG/05	
SAT IMG/04-6	That the SAT IMG endorses the revised version of the SAT Contingency Plan (SAT Doc 002, 2nd edition, November 2024)	- Publication of SAT Doc 002 via ICAO SL - Promulgation of SAT Doc 002 by all SAT members - Coordinate with SAT DMO the next version of SAT Doc 002 and present it at SAT IMG/05 for approval	New
SAT IMG/04-7	That the SAT IMG endorses the new SAT Document Application of Separation Minima in the EUR/SAM corridor (SAT Doc 003, 1st edition, November 2024)	- Publication of SAT Doc 003 via ICAO SL - Promulgation of SAT Doc 003 by all SAT members - Coordinate with SAT DMO the next version of SAT Doc 003	New
SAT IMG/04-8	That the SAT IMG endorses the new SAT OPS Bulletin on CPDLC logon issues for flights in the Dakar FIR– Abidjan ACC-Accra FIR areas (SAT OPS Bulletin 2024_001, 1st edition, November 2024)	- Publication of SAT OPS Bulletin 2024_001 and promulgation to all SAT members - Coordinate with SAT DMO the next version of the SAT OPS Bulletin 2024_001 and present it at SAT IMG/05	New

3 ACTION BY THE MEETING

3.1 The SAT SG is invited to:

- a. note the information provided;
- b. support the SAT IMG implementation activities as described in the Action items;
- c. take note and support the SAT IMG decisions
- d. note that the next SAT IMG/05 meeting will be organized, venue to be confirmed, from 7 to 11 April 2025;
- e. note that the next SAT IMG/06 meeting will be organized in Cabo Verde (tbc), in Q3 2025; and
- f. provide further guidance, as necessary.

Appendixes