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**SUMMARY OF DISCUSSIONS OF THE SOUTH ATLANTIC  
IMPLEMENTATION MANAGEMENT GROUP**

**FOURTH MEETING**

*(Abidjan, Côte d'Ivoire, 7 to 11 October 2024)*

**0. Introduction**

0.1 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.

0.2 The meeting was opened by Mr. Luis Tojais (SAT IMG Chairperson) who welcomed the SAT IMG participants to Santa Maria and a total of 40 participants from Brazil (remotely), Cape Verde, Ghana, Portugal, Senegal, South Africa (ARMA), Spain, United States, ASECNA, IATA (remotely) discussed the latest developments for the harmonization of operations, infrastructure and development programmes in the South Atlantic.

0.3 The lists of participants and meeting documentation are provided in [Appendices A](#) and [B](#) respectively.

0.4 Mr. Luis Tojais (Portugal) chaired the meeting with support from Mr. Sven Halle, SAT IMG Secretary, from the ICAO EUR/NAT Office and Mr. Serge Tchanda from the ICAO WACAF Office. Administrative assistance was provided by Ms. Leyla Suleymanova from the ICAO EUR/NAT Office. Remote attendance was provided to the ICAO colleagues from the ESAF and SAM Regional Offices.

0.5 At its opening session the Group adopted the following agenda and agreed on the proposed work schedule:

**Agenda Item 1: Opening and review of latest developments**

- 1.a) Adoption of the Agenda
- 1.b) Latest significant international aviation developments
- 1.c) Review of action item list
- 1.d) Presentation of the results from the SAT SG/01 meeting
- 1.e) Review outcome of other meetings which are of relevance to the SAT IMG

**Agenda Item 2: Planning and implementation programmes**

- 2.a) States/ANSP updates including traffic figures
- 2.b) Airspace user update
- 2.c) AIDC implementation updates
- 2.d) Update SAT PBCS IS PT
- 2.e) Other issues (i.e. Mach Number Technique, SAT SDR, SAT geographical area)

**Agenda Item 3: Airspace and ATS Route improvements**

- 3.a) EUR/SAM corridor improvements
- 3.b) AORRA developments
- 3.c) Progress report for UN 866 dualization and any other airspace or ATS Route improvement activities

**Agenda Item 4: SAT documentation**

- 4.a) SAT Doc 002 (SAT Contingency Plan)
- 4.b) SAT OPS Bulletin

**Agenda Item 5: Coordination between SAT IMG and SAT SOG**

- 5.a) Review of outcome from SAT SOG/03 meeting
- 5.b) Any other aspects

**Agenda Item 6: Any other business**

- 6.a) Future work programme and follow-up actions
- 6.b) Next meetings
- 6.c) Report to the next SAT SG meeting

**1. Opening and review of latest developments**

1.1 The meeting was welcomed by Mr. Boni Djambra (Director General ANSP Côte d'Ivoire), Mr. Sidi Kone (ASECNA representative in Côte d'Ivoire), Mr. Nika Manzi (Deputy Regional Director WACAF Office) and Mr. Assi Ayebe (Autorite Nationale de l'Aviation Civile de Côte d'Ivoire ANAC representative).

1.2 The Group noted that 18 working papers and 9 information papers had been prepared and submitted for discussion at the SAT IMG/04 meeting.

1.3 The SAT IMG action item list and SAT IMG decisions table were reviewed. The Group closed multiple pending decisions & action items and agreed to 8 new decisions and 7 new actions for completion until the next meeting. Based on this review and taking account of the outcome of SAT IMG, the updated follow-up action list is shown in [Appendix D](#) and the updated decision list is shown in [Appendix E](#).

*1b-e) significant international aviation developments and outcome of meetings with relevance to the SAT IMG NORTH ATLANTIC IMPLEMENTATION MANAGEMENT GROUP (NAT IMG/64)*

1.4 The Group noted the presentation on the main results from the 64<sup>th</sup> meeting of the North Atlantic Implementation Management Group (NAT IMG/64) which was held at the ICAO EUR/NAT Office in Paris France from 15 to 17 May 2024. The Group took note of the outcome of the discussions on the NAT Oceanic Clearance Removal, the Space Weather contingencies as well as the plans for a SWX exercise in 2025, the update on the NAT data link performance and equipment data, the conclusions on the utilisation of FLs above FL410 with 1000ft separation, the decision to monitor the use of FL290, FL300 and FL310 for new aircraft types in the NAT, the update from the DISTREX PT, the endorsement of NAT documents, the changes to the work programmes and the schedule of the next meetings.

1.5 During the discussions the topic of GNSS Radio Frequency Interference RFI (jamming & spoofing) was addressed and the Group exchanged their views/experience (e.g. ANSP reactions, flight crew reporting aspects, effects on the use of data link). All SAT ANSPs agreed to collect data on GNSS Interference (jamming/spoofing) and share their information at next SAT IMG meeting (Action 04-01)

*NORTH ATLANTIC SAFETY OVERSIGHT GROUP (NAT SOG/30)*

1.6 The Group noted the information from the NAT SOG/30 meeting report, which was held at the ICAO EUR/NAT Office in Paris, France from 4 to 7 June 2024 and in particular, the review of safety performance in the NAT Region, the work of the NAT SOG Project Teams, the NAT SOG Decisions and the support to the proposed updates of NAT documents.

*Outcome of the EUR/SAM Air Space Concept Implementation Team ESCIT/04 meeting*

1.7 The Group was informed about the outcome of the last 6<sup>th</sup> EUR/SAM Air Space Concept Implementation Team (ESCIT/06) meeting which was held virtually on 12 September 2024. The meeting discussed the Mach Number Technic (MNT) implementation status, the progress update for the dualisation of the ATS Route UN866 and the PBCS implementation plan for the EUR/SAM Corridor. The results from the ESCIT meetings have been incorporated into WP03 (PBCS), IP08 (MNT) and IP07 (UN866) for further discussion at this meeting.

*ICAO UPDATE*

1.8 The Group was provided with an information paper about the recent significant international aviation developments, including the latest amendments and proposals for amendment to ICAO Annexes and Procedures for Air Navigation Services (PANS), the distributed State letters and Electronic Bulletins, as well as other publications (e.g. ICAO Documents, Manuals and iPacks). The Group also took note of the upcoming ICAO meetings at global and regional levels, as well as the planned regional and Global Aviation Training (GAT) courses. The Group was also provided with a verbal update from the Secretariat on the initial outcomes from the 14<sup>th</sup> Air Navigation Conference which was held at ICAO HQ in Montreal, Canada from 26 August to 06 September 2024. The Conference was organized around 4 major streams (Update on the ICAO 2023-2025 Business Plan and long-term strategic planning, Timely and safe use of new technologies, Air navigation system performance improvement, Hyper-connectivity of air navigation system) and the initial Conference recommendations were presented to the Group.

## **2. Planning and Implementation Programmes**

### 2a-b) State/ANSP reports and airspace user updates

2.1 **ASECNA** gave a presentation to the Group which provided statistical data on traffic movements and performance projections for the Dakar Oceanic FIR, as well as updates on planned changes to the ATM/CNS infrastructure, including percentages for aircraft equipage. The Group noted that the traffic figures increased by 11% up to August 2024 when compared to 2023 figures and surpassed the 2019 levels for Dakar Oceanic FIR. The Group also noted the traffic distribution (on the unidirectional RNAV routes (UN741- 4.6% and UN866- 15.7%) and bidirectional routes (UN873- 17.7% and UN857- 8.7%) and the Atlantic Ocean Random Routing Area (AORRA) airspace 53.4% with 10 min longitudinal separation and Mach Number Technique). The traffic distribution indicated that random routings are the most frequent route options in the oceanic airspace of Dakar with figures up from 40% in 2022 to 53.4% in 2024. The trend on the raised the question of whether the elimination of fixed routes or the adoption of daily routes similar to the North Atlantic Organized Track System (NAT-OTS) should be considered. The list of main operators together with the aircraft types that are operating in the Dakar Oceanic FIR were presented. The flight equipage data for 2023 was presented which showed capabilities for RSP180 58%, RSP240 59%, RNP4 81%, ADS-B 99% and CPDLC 97%. The CPDLC Actual Communications Performance for messages sent within Dakar FIR was around 99.8% and the ADS-C Downlink Latency measurements per month for messages sent within Dakar FIR was around 99.5%. The updated status of implementation of CNS/ATM concepts, such as AIDC-PBCS-SB ADS-B, in the Dakar Oceanic airspace was also presented. During the discussion, it was also highlighted that due to AIDC problems with Atlantico FIR, only voice communication can be used for coordination between both FIRs. Unfortunately it was so far not possible to organise a technical expert meeting (SAT IMG Decision 03/01) 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.

2.2 **Portugal** reported that the traffic figures in the first 7 months of 2024 showed an increase of 11.8%, with consistent increase for every month, when compared to the 2023 figures. Santa Maria started, as published in AIC A 003-2024, the trial on new procedures for initial voice contact with Santa Maria Radio for flights using CPDLC in Santa Maria FIR. The trial started on 16 May 2024 and at the beginning, a slow adherence from the operators was noted and some clarification requests were received, either from the operators directly with the trial focal point, either by the crews, on the frequency. Gradually the number of flights participating increased, slowly but steadily and the clarification requests became rare. After six months, it has been possible to demonstrate that the procedure is feasible and that, when applied, the two main objectives are achieved, namely, reduce the crew workload and allow the radio operator to better manage the air-ground communications sequence and priority. Additionally, when applying the procedure, the radio operators referred that there is a noticeable reduction in frequency occupancy. It would be of interest to increase the number of participating flights. NAV Portugal is planning to make a direct contact with some of the operators which cross more frequently Santa Maria FIR. It would be greatly appreciated the cooperation of IATA and IFALPA by advertising within their members the trial taking place in Santa Maria and encouraging operators/crews to adhere. Work is ongoing to implement the 15NM TtT separation minimum by the end of 2024. Work is also ongoing to implement the SYNC SERVER functionality in the SATL system, that will allow the backup system to fully run in parallel with the main system, allowing for a near seamless transition in case of system failure.

2.3 The Group noted the report from **Spain** on the latest developments in Canarias ACC, which registered an increase of 6% in traffic figures within the EUR/SAM Corridor in Canarias FIR for the first half of 2024. The figures peaked with 12% increase in May 2024. The Group recalled the discussion (Action Item 03-02) with aircraft fleet equipment capabilities as the figures for RSP180/RCP240 in the EUR/SAM corridor were again showing a decrease for 2024 when compared to 2023 figures. The Group concluded that the FPL filing issue needs to be addressed with aircraft operators and CFSPs. The Group noted the OLDI/AIDC status for Canarias (which is not going to change), the data link service analysis (most of FANS equipped aircraft (88%) connect to Ground System, traffic in the EUR/SAM Corridor using FANS services was above 82% of total traffic, ADS-C surveillance data accuracy: almost all (99.9%) of the analysed ADS-C messages in the studied period report a FOM value equal to or better than 6). The implementation of ADS-B and the ADS-B coverage maps were presented. ATS surveillance services based on ADS-B surveillance may be provided to aircraft transmitting ADS-B data if the data quality meets the quality requirements for the provision of air traffic services. The installation of ADS-B/VHF stations in Mauritania to improve Surveillance and Communication Coverage in Canarias FIR (coverage maps were shown) is still planned for Summer 2026. The implementation of satellite-based VHF and ADS-B concept with the company “STARTICAL” has been planned in the longer term.

2.4 This was followed by the statistical data collection from South Atlantic Regional Monitoring Agency (**SATMA**) which addressed SAT-IMG decision R-05. The flight data source, scope and hypothesis are the same that has been used in the traffics statistics: Demand Data Repository (DDR) provided by EUROCONTROL, as the Network Manager (NM) and exclusively from EUR/SAM Corridor. The considered original scenario traffic in those forecasts are arriving/departing from/to, as well as overflies the following geographical area. An expansion of horizon for traffic figures monitoring has been carried out in the EUR/SAM corridor for 2026. The base scenario foresees an increase of **9%** in 2026. In a more optimistic scenario, high one, this increment is foreseeing until **12%**. This forecast is very similar to last presented SATMA report (10% and 13% respectively). The Group thanked SATMA for the valuable information provided and in the discussion the traffic capacity demand, the integration of traffic that is crossing the EUR/SAM corridor and the projected North and Southbound traffic flows were discussed. The Group concluded that the implementation of PBCS will add additional capacity as the applied separation minima may change from 10 minute separation to 30 NM lateral separation.

2.5 The Group was informed by **Brazil** on the statistical data of traffic movements, the performance and projections for the Atlantico FIR (SBAO FIR) and the status/updates of planned ATM/CNS infrastructure changes. The annual traffic figures indicates a growth from 41815 fights in 2022, to 50605 flights in 2023 and up to August 2024 already 37230 flight within Atlantico FIR. The movements per month are all above the 2023 figures indicating a 13% of traffic increase. Based on the 2021 Brazil ATM Performance Report the most realistic projection for the Atlantico FIR suggested that the recovery to 2019 levels would not

occur until after 2026. However, the real data indicated a more optimistic forecasts, surpassing the pre-pandemic movement in 2024. The steady growth across the last 3 years signals a strong recovery trajectory for the aviation sector, which may be aligned with the optimistic forecast of the previous Brazilian ATM Performance study. The analysis of requested Flight Level clearances via datalink was presented and 2782 data link messages for level change requests were collected between February and June 2024. 96.7% of the requests were associated with the intention to climb, while only 3.3% were related to descent requests. There were 2423 (83.5%) positive clearances issued by the ATCOs of the Atlantico ACC, granting approval for both ascent and descent according to the pilot's request. Authorization was not feasible for 459 (16.5%) of the requests due to the presence of conflicting traffic. The majority of level clearance was concentrated at higher flight levels, with FL380 leading at 486 clearances (20.93% of total traffic). Other notable levels included FL400 (360 clearances, 15.50%) and FL390 (324 clearances, 13.95%). Traffic gradually decreased at lower altitudes, with levels below FL320 showing minimal activity (less than 2% of clearance requests). The list of main operators together with the aircraft types that are operating in the Atlantico FIR were presented. The flight equipage data for the first half of 2024 was presented which showed capabilities for RNP4 at 79.0%, and RNP10 at 71.6% demonstrating robust implementation of advanced navigation systems in the area. The figures for RCP240 are at 60.1% and the combination of RNP4 and RNP10 with RSP180 & RCP240, which represent the essential capabilities for PBCS implementation, are at 58.6% for the 4667 flights that were declaring this capability. The Group noted the technical issues with the AIDC implementation between Dakar and Atlantico ATS Centers and that the project has been rescheduled for the third quarter of 2024 to address the inconsistencies and validate the adjusted AIDC message list, see SAT IMG Decision 03/01. The implementation of satellite based ADS-B in the airspace of Atlantico FIR is planned for 2027. The Group was informed about DECEA's MNT implementation plans (November 2024), the status of the various activities for the N/UN866 dualisation and the proposed changes to the SAT Doc 002 (see WP14) which are intended to enhance clarity and accuracy in the SAT Operational Contingency Plan.

2.6 The Group noted the information from **Ghana** for the Accra Oceanic Airspace. The traffic figures had been growing steadily with a traffic increase of 28.3% between 2023 and 2022 and an increase of 6% for the first half of 2024 when compared to the 2023 figures. The report also included details on the aircraft equipment data (percentage of equipped aircraft in 2024: RVSM 96.8%, ADS-C 78.6%, ADS-B 86.2%, RNAV/RNP10 82.2%, RNAV5 98.0%, RNP4 70.7%, RNP2 86.3%, RNP1 89.1%) which all showed an increase in advanced equipage availability. Due to the high percentage of regional aircraft operators with older aircraft types in a small sector of the oceanic airspace, it will be challenging to achieve higher percentages of equipage rates in the short term. About half of the oceanic airspace within the Accra FIR is covered by VHF (VHF antenna in Sao Tome) and it is difficult to cover the other half. In the areas where there is no VHF, CPDLC is used as the primary communication and HF as secondary communication media. The Accra FIR is covered 100% with ADS-C CPDLC in order to ensure efficient and effective Air Traffic Services. Several ADS-B antennas (with 250 NM ranges) were installed to cover a great part of Accra FIR, but it is difficult to include the south-western part of the FIR. SSR antennas had positioned to cover parts of the oceanic areas as well as to augment the other surveillance systems. Currently, the ATS-routes within the Oceanic airspace are RNAV/RNP 10 routes, but data is being analyzed to develop RNP 4 and 2 ATS-Routes. Free Route Airspace has been implemented within the Accra FIR between Latitudes 2°N and 11°N from 25 January 2024 onwards. There has not been much change in the status of PBCS implementation. An overview of AMHS and AIDC implementation was presented and some implementation challenges were discussed. Several AMHS/AIDC connections are still not fully operational, as the necessary updates of LoAs are still pending. The connections with Sao Tome and Luanda have not been completed. As a result of the discussions, ASECNA offered to support Ghana in the finalisation of the AIDC implementation (LoA signing) with Ouagadougou, Niamey and Brazzaville. (Action 04-02)

2.7 The Group was informed by **Cabo Verde** on the traffic movements on SAL FIR, efforts to improve the air traffic services, including updates in ATM/CNS infrastructure projects in line with SAT conclusions and decisions. The traffic figures for overflights and for arrivals/departures to Cabo Verde indicate a continuous growth for every year 2022 to 2023 and for the first eight months in 2024. Four ADS-B antennas, each with a range of approximately 260 NM have been strategically positioned to cover about 80% of the FIR, and approximately 95% of the EUR/SAM ATS routes. Operational testing is on going and the antennas are located in Sal Island, Santiago Island and Santo Antão Island. The transition from AFTN to AMHS was completed in June 2024. Work continues with Dakar to progress AIDC implementation, pre implementation

operational test was carried out successfully with few issues to be solved. The elimination of the Mach Number Technique MNT compensation between SAL FIR (GVSC) and Dakar Oceanic FIR (GOOO) went into operation 2 September 2024. There has not been much change in the status of PBCS implementation, but the new ATM Systems are RCP 240 and RSP 180 compliant. ASA is collaborating with “STARTICAL” on satellite based voice projects for VHF and ADS-B via satellite based technologies. During the discussions, the technical aspects and the different technical challenges in the implementation of AIDC with different ATM system providers were raised and the necessity of live trials with dummy messages, as well as training and implementation monitoring phases had been seen as crucial factors for a successful implementation.

2.8 SAT IMG members were invited to submit their State/ANSP reports, even if they could not attend the meeting, in order to allow the distribution of important information and coordination of ANS related developments within the SAT FIRs. (Recurrent Action R1-01).

2.9 There were no updates from airspace users for the SAT IMG/04 meeting.

### 2c) AIDC and/or AMHS implementation updates

2.10 The Group was informed by the Secretariat that unfortunately it had not been possible to report back on the technical solutions which support the implementation of AMHS (Action 01-04) and to collect all the information from State Reports & WPs and develop consolidated AMHS and AIDC implementation status tables (Action 02-06).

2.11 In addition, it was also not possible to address the SAT IMG Decisions 03-1 (Organisation of a technical expert meeting (virtual) with participation of SMEs from the ATM System manufactures to discuss interoperability issues which currently prevent the successful implementation of AIDC) and 03-2 (Develop an AIDC implementation roadmap for the involved FIRs) and the Group agreed to postpone them to Q1/2025.

### 2d) PBCS implementation

2.12 The SAT IMG was informed by the ESCIT on the latest activities of the PBCS Implementation Team for the EUR/SAM Corridor and reviewed the updated Implementation Plan Checklist, which had been based on the template from the PBCS IS Project Team. The Group discussed the details from the checklist highlighted that there will be no issues with different PBCS implementation phases (first phase in the EUR/SAM corridor for 2026, phase 2 for the rest of the SAT Area) and that there is no need for a common PBCS implementation date for the whole SAT Area. The Group stressed that the real challenge for the ANSPs will be on how they will handle/manage PBCS equipped and non-PBCS capable aircraft in the same airspace, including the application of different separation minima between these aircraft. The contingency aspects (loss of COM and/or SUR) for aircraft that are operating with PBCS separation, possible PBCS separation minima options which will have to be included into the safety assessments and the ATCO training requirements were also addressed in the discussions. At the end, the Group agreed to the following decision:

<b>Why</b>	To support the implementation of PBCS in the EUR/SAM corridor
<b>What</b>	Continuous update of the PBCS implementation plan at ESCIT meetings Present updates at SAT IMG/05
<b>Who</b>	ICAO Secretariat, SAT IMG members
<b>When</b>	November 2024

### **SAT IMG Decision 04/01 – PBCS IMPLEMENTATION IN THE EUR/SAM CORRIDOR**

That the SAT IMG endorses the PBCS implementation plan (implementation date 2026) checklist for the EUR/SAM Corridor as presented by ESCIT.

2.13 The SAT IMG also concluded that the States in SAT Area can join whenever they are ready (in terms of ATM Systems, CAA regulatory framework, training, aircraft operator readiness) and Ghana as well as Côte d'Ivoire indicated that they would use the material from the ESCIT to join at a later stage.



Therefore it was agreed to put the PBCS IS Project Team on hold and reactivate the PT when the PBCS implementation will cover in phase 2 all States within the whole SAT Area.

2.14 Brazil presented the different activities of their (DECEA's SIRIUS with a strong emphasis on the EUR/SAM corridor) PBCS implementation programme which includes developing PBCS-compliant ATC system requirements and adhering to RCP/RSP specifications, studies on horizontal and vertical separation minima, planning for the release of an Aeronautical Information Circular (AIC) addressing separation changes in the EUR/SAM corridor, analyzing CPDLC communication data, and reviewing unauthorized horizontal and vertical deviations. The programme also included priority activities such as

- a) to establish a robust PBCS regional monitoring program to compile and manage performance data, focusing specifically on identifying and addressing underperforming aircraft;
- b) regular consultations with national Civil Aviation Authorities and technical/operational subgroups are clarifying the steps and procedures for monitoring PBCS;
- c) to define the software requirements essential for advanced air traffic management and PBCS implementation, including analyzing flight plans, Large Lateral Deviations (LLD) and Large Longitudinal Errors (LLE) reports;
- d) to prepare guidelines to support the monitoring of horizontal separation reductions, with an emphasis on Phase 1 of the process as outlined in NAT Doc 011

2.15 Advancing the implementation of PBCS within Brazilian jurisdiction area and in the EUR/SAM Corridor is believed to be essential for facilitating effective integration and promoting safer, and more efficient airspace management. During the discussion it was clarified that the ESCIT will not define new separation standards, the ESCIT will use/implement the available PANS-ATM standards for application in the EUR/SAM corridor.

2e) Other issues (i.e. Mach Number Technique, SAT SDR, SAT geographical area)

2.16 A joint working paper from the United States and the Secretariat was presented on the delineation of the SAT Area and a proposed multi-step process to meet the goal of establishing a general SAT Area boundary by 2024. The South Atlantic (SAT) Area remains undefined, lacking a clear boundary for implementation plans and provision of SAT-specific safety oversight. During the first SAT Steering Group (SG) meeting held in December of 2023, a decision was issued (SAT-SG/01) calling for coordination of the delineation of the SAT Area between the IMG and SOG project teams. The final version of the delineation was due to be submitted to the States for endorsement by 31 October 2024. Without a clear indication on the status of the SAT-SG/01 conclusion, this paper proposed a list of actions to delineate the SAT Area in its entirety which will include segregating domestic airspace from individual FIRs, where necessary. A list (xls file) of coordinates for each FIR within the SAT Area was presented as a starting point.

2.17 The SAT IMG discussed the proposed phased approach, but was not supporting the idea to establish a dedicated project team for this exercise at this time. In the discussions the Group also agreed to rather use a defined operational geographical line between oceanic and domestic airspace instead of the 12 NM boundary from the coastline (High Seas airspace). States should provide vertical limits and airspace classifications for the airspace that they want to have included in the SAT Area. Therefore the following decision was agreed:

<b>Why</b>	Delineation of the South Atlantic Area
<b>What</b>	Request SAT States to: <ol style="list-style-type: none"> <li>a. confirm their FIR boundaries as outlined in the WP06 xls file,</li> <li>b. define an operational geographical line (LAT LONG coordinates) between domestic and oceanic airspace,</li> <li>c. provide vertical limits and airspace classifications for airspace to be included in the SAT Area</li> </ol>
<b>Who</b>	ICAO Secretariat, SAT IMG members

<b>When</b>	<ul style="list-style-type: none"> <li>- SL issued and SAT States to report back before SAT SG/02 meeting in December 2024</li> <li>- Discussion at SAT IMG/05 meeting</li> </ul>
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### SAT IMG Decision 04/02 – DELINEATION OF THE SAT AREA

That the SAT IMG request 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.

2.18 The SAT IMG recalled the activities from the ESCIT on the reduction of the Mach Number Compensation for traffic in the EUR/SAM Corridor which had been implemented in a phased approach since March 2024. The MNT implementation in Atlantico FIR for Southbound traffic to 1 minute per 0.01 Mach number difference, when succeeding traffic is faster than preceding one was implemented on 2 September 2024. However, the MNT implementation for the Northbound traffic in Atlantico FIR was still awaiting the approval of the LoA between the Dakar Oceanic and Atlantico ACCs. Brazil indicated that the full implementation can be expected until the end of November 2024. In the discussion, it was highlighted that the positive effects of the MNT implementation should be shared with the airspace users and the meeting agreed to collect data on the operational benefits and present the initial results at SAT IMG/05 meeting. (Action 04-03)

2.19 SATMA presented a working paper on the progress which must be addressed towards PBCS Performance Monitoring within the in the EUR/SAM Corridor & the whole SAT Area and the next steps which need to be taken by the involved RMAs/SATMA and ANSPs. With reference to the ESCIT EUR/SAM PBCS Implementation Plan Checklist, the Task E on “PBCS Post implementation monitoring” had already planned certain dates for States in the EUR/SAM Corridor. However, PBCS monitoring programmes not only require available infrastructure to function, but also a set of interlinking policies and procedures for smooth operations between the participating organisations: ANSPs, Airspace Users and RMAs. The NAT Doc 011 (PBCS MONITORING AND REPORTING GUIDANCE) had established a 3 phase approach for ATSPs, RMAs and the State Oversight Authorities and the Group discussed if the document should also be used in the SAT Area. It was made clear there is a difference between the monitoring of PBCS from ANSPs as defined in the ICAO PBCS Manual and the post PBCS implementation monitoring as presented by the RMA/SATMA. ARMA pointed out that their current monitoring mandate includes only the territorial airspace of SAT States within the AFI Region and that PBCS monitoring for the SAT Area would require an extension of their mandate form the APIRG. The Secretariat of the WACAF Office agreed to prepare a WP for the upcoming APIRG to expand the scope of the ARMA mandate so that the SAT Area (oceanic) airspace can be included (Action 04-04).

2.20 The SAT IMG noted that Enaire and SATMA will start the PBCS Monitoring along 2025 and will engage with the Spanish Oversight Authority (AESA) for the procedure to manage the reports of non-compliance PBCS requirements. SATMA will also coordinate with Enaire the inclusion of large lateral/longitudinal deviation (LLD/LLE) reporting as well as refresh/update of LHD reporting in the expected ATC Training for PBCS implementation. The SAT IMG strongly supported the SATMA proposal to develop PBCS Monitoring and Reporting Guidance Material for the SAT Area (EUR/SAM Corridor phase1, rest of the SAT Area phase2) and consequently agreed to the following:

<b>Why</b>	To be compliant with the PBCS Post implementation monitoring tasks
<b>What</b>	<ul style="list-style-type: none"> <li>- Series of virtual expert meetings (led by SATMA) with SMEs from ANSPs , CAAs and RMAs</li> <li>- Drafting of a new SAT Doc 00X</li> <li>- Presentation of the SAT Doc 00X for discussion at SAT IMG/05</li> <li>- Coordination of the new SAT Doc with SAT DMO</li> </ul>
<b>Who</b>	SATMA, SAT IMG
<b>When</b>	Update at SAT IMG/04 meeting

### SAT IMG Decision 04/03 – Development of PBCS Monitoring and Reporting Guidance Material



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.

### 3. Airspace and ATS Route improvements

#### 3a) EUR/SAM corridor improvements

3.1 The ESCIT (EUR-SAM Air space Concept Implementation Team) PT presented the latest developments on the planned changes to the ATS Route N/UN866 in accordance with SAT IMG Decision 03/06. Although the deadline adopted in decision 03/06 was before the end of 2024, some States in the EUR/SAM Corridor were indicating that this could not be achievable. Therefore a new date **AIRAC 23 JAN 2025** was adopted by the ESCIT, as this change has to be done by all 4 States at the same time with significant changes to AIP publications and amendments of LoAs. At the same time there are a number of changes that the each State have to make internally, such as a possible safety assessment, contingency plan update, and changes in the operating manuals as well as any other kind of documentation that could possibly be affected by this implementation. During the discussions ASECNA stated that it would be complicated for them to meet the deadline, due to a great number of changes in the upcoming months and given the fixed limit date for changes in the AIP. Brazil, Spain and Cabo Verde expressed their concerns with a further delay and the Secretariat highlighted the importance of a joint multi national implementation activity. Senegal and ASECNA offered a further review of the current position and would return back to the EUR/SAM States before the end of November 2024.

### 4. SAT Documentation

#### 4a) Development and update of SAT documents

4.1 The SAT DMO (Mrs Virginia Mignoni from Brazil) presented the key actions and next steps for the SAT DMO based on the discussions and decisions which had been made during the various coordination meeting with the ICAO SAT Secretariat. The main objective for the DMO is to ensure consistency and accountability in the SAT Documents and their related development processes. The update of the SAT Doc 001 (SAT Handbook), the publication of the SAT OPS Bulletins and the regular update of the SAT Doc 002 were the presented as the main activities for the next month. The Group supported the idea of creating/hosting a dedicated SAT documentation homepage which would enhance accessibility and consistency. The SAT IMG was invited to review and and comment on the proposed changes from SAT DMO to the SAT Doc 001 Handbook until the 31 October 2024 (Action Item 04-06)

4.2 Brazil presented a working paper with updates to the SAT Doc 002 (ATM Operational Contingency Plan for South Atlantic Oceanic FIRs) that included revisions to the long term contingency arrangements, the removal of FL320 from Abidjan Westbound Routes UR560 and CR9, the creation of a new contingency route for Abidjan FIR, adjustments to ATS Route descriptions and corrections to available Flight Levels. During the discussions, several SAT IMG members added change proposals (update of contact details, corrections to route descriptions, waypoint coordinates, flight levels, and communication mechanism) which arte aimed to ensure the enhancement of operational efficiency in a contingency situation. Consequently, the SAT IMG agreed to the following:

<b>Why</b>	Update information on contingency arrangements for flights inside the EUR-SAM corridor, for flights in the AORRA airspace, for flights in the SAT Area outside of the EUR-SAM corridor and for flights in specific FIR-to-FIR interface areas
<b>What</b>	<ul style="list-style-type: none"> <li>- Approval of the 2nd edition of SAT Doc 002</li> <li>- Publication of SAT Doc 002 via ICAO SL</li> <li>- Promulgation of SAT Doc 002 by all SAT members</li> <li>- Coordinate with SAT DMO the next version of SAT Doc 002</li> </ul>

<b>Who</b>	SAT IMG, SAT DMO, SAT SOG
<b>When</b>	November 2024

#### Draft SAT IMG Decision 04/06 – SAT Doc 002

That the SAT IMG endorses the SAT Contingency Plan (SAT Doc 002, 2nd edition, November 2024)

4.3 A proposal for a new SAT Document was presented by the ESCIT (EUR-SAM Air Space Concept Implementation Team) which would, similar as in the NAT Doc 008 (Application of Separation Minima – North Atlantic Region), address the *Application of Separation Minima in the EUR/SAM Corridor*. The document 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. The document is aligned with the ICAO Doc 4444 (Procedures for Air Navigation Services–Air Traffic Management (PANS-ATM)).

4.4 The SAT IMG appreciated the development of this new guidance material from the ESCIT and therefore agreed to the following:

<b>Why</b>	Share information on the application of different vertical, lateral, and longitudinal separation minima to aircraft which are operating in the EUR/SAM corridor
<b>What</b>	<ul style="list-style-type: none"> <li>- Endorsement of SAT Doc 003</li> <li>- Publication of SAT Doc 003 via ICAO SL</li> <li>- Promulgation of SAT Doc 003 by all SAT members</li> <li>- Coordinate with SAT DMO the next version of SAT Doc 003</li> </ul>
<b>Who</b>	SAT IMG, SAT DMO, SAT SOG
<b>When</b>	November 2024

#### Draft SAT IMG Decision 04/07 – New SAT Doc 003

That the SAT IMG endorses the SAT Doc 003, Application of Separation Minima in the EUR/SAM Corridor (1st edition, November 2024)

4.5 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 with remote participation from IATA and the SAT DMO. As a result of this exercise a draft SAT OPS Bulletin was jointly developed and reviewed by the SAT IMG which at the end agreed to the following:

<b>Why</b>	Provide guidance to and increase awareness of ANSPs and aircraft operators, flight crews, and pilots overflying Abidjan airspace in the Atlantic Ocean Random Routing Area (AORRA) regarding the correct CPDLC logon procedures
<b>What</b>	<ul style="list-style-type: none"> <li>- Endorsement of OPS Bulletin 2024_001</li> <li>- Publication of SAT OPS Bulletin 2024_001 via ICAO SL</li> <li>- Promulgation of SAT OPS Bulletin 2024_001 by all SAT members</li> </ul>
<b>Who</b>	SAT IMG, SAT DMO, SAT SOG
<b>When</b>	November 2024

#### Draft SAT IMG Decision 04/08 – SAT OPS Bulletin 2024\_001

That the SAT IMG endorses the 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)

4.6 The SAT IMG invited ASECNA, Ghana and Cote d’Ivoire to monitor the situation after the publication of SAT OPS Bulletin 2024\_001 and present feedback on the CPDLC logon issues at the next SAT IMG/05 meeting (Action Item 04-07).

## 5. Coordination between SAT IMG and SAT SOG

5.1 The AFI RMA (ARMA) presented the Large Height Deviation (LHD) reporting challenges and the LHD mitigation measures which had been adopted by the APIRG for utilization of SAT States. Over the years ARMA has constantly been trying to address reporting deficiencies both in the SAT and AFI Region from States. Out of the 6 SAT States under the oversight of ARMA, only 2 SAT States are providing LHD Reports to ARMA. ARMA discovered that there were many changes in personnel, procedures, and circumstances in the respective States and ANSP that contributed to the lack of reporting. The ARMA developed both guidance and training material to help retain knowledge for incoming NPM in conducting safety awareness promotions for LHD reporting within the Region and hope it will assist in spreading awareness resulting in reduced LHD occurrences and increased reporting. The LHD training package includes the LHD reporting form which is on the ARMA Website ([www.arma.africa](http://www.arma.africa)), the LHD frequently asked questions, the LHD taxonomy and the cross-boundary LHD coordination procedure.

5.2 ARMA encouraged SAT States to have a LHD preventative/mitigation measures in place and that States/ANSPs keep track of the mitigation measures which are identified and planned, as well as the effectiveness of those measures. SAT States were also encouraged to have trained Human Factor Specialists so that the State is able to recognize Human Performance considerations in their daily work activities. ARMA also pointed out that the LHD guidance material has been translated into French language.

5.3 During the discussion several SAT IMG members exchanged their experiences/practices and agreed to the following:

<b>Why</b>	Address the Large Height Deviation (LHD) reporting challenges and improve the LHD reporting from States in the SAT Area
<b>What</b>	- 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
<b>Who</b>	SAT IMG, SAT SOG
<b>When</b>	November 2024

### Draft SAT IMG Decision 04/04 – ENHANCE LHD REPORTING IN THE SAT AREA

That the 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
- invites ARMA to conduct LHD reporting webinars for States in the SAT Area which are not in compliance with their reporting requirements

5.4 The United States presented a working paper to the SAT IMG which provided an overview of the influence of safety occurrences on collision risk estimates, a summary of State responsibilities with respect to data collection and dissemination, an overview of how assessing safety occurrences support implementation decision making and management, and a recommendation to develop guidance material to promote a robust safety occurrence reporting/data collection culture. These monitoring activities include the monitoring the minimum risk of collision associated with operational errors and in-flight contingencies resulting in a large height deviation, large lateral deviation or a large longitudinal deviation. In some Regions, inconsistencies in the level of safety occurrence reporting and the quality of information provided in safety occurrence reports

had been reported. Experience had shown that satisfaction of reporting requirements and the quality of information provided safety occurrence reports improves with routine stakeholder engagement and provision of guidance material. The Group was informed about the guidance material from the Monitoring Agency for the Asia Region (MAAR). Guidance material would help those responsible in determining which events qualify as a safety occurrence report and inform reporters on the information necessary to support RMAs in adequately assessing the reports and identifying the parameters values necessary to estimate operational risk.

5.5 The presentation concluded with a recommendation that specific safety occurrence reporting guidance material should be developed for the SAT Area to ensure that the necessary safety-related information is collected to support the safety performance monitoring, accurate assessment of collision risk, and future implementation initiatives within the SAT Area. In the discussions ARMA stated that not all States in the SAT Area are regularly reporting and that despite the requirements for States to report to the RMAs there are still reporting culture/safety culture challenges in the SAT Area.

5.6 The SAT IMG appreciated the initiative from the United States, fully supported the proposal and therefore agreed to the following:

<b>Why</b>	Enhance safety culture/just culture implementation and improve the collection of necessary safety related information in the SAT Area
<b>What</b>	- Series of virtual expert meetings (led by the FAA) with SMEs - Drafting of a new SAT Doc 00X - Presentation of the SAT Doc 00X for discussion/approval at SAT IMG/05
<b>Who</b>	SAT IMG, SAT DMO, SAT SOG
<b>When</b>	November 2024

#### **Draft SAT IMG Decision 04/05 – NEW SAT DOC 00X WITH SPECIFIC SAFETY OCCURRENCE REPORTING GUIDANCE MATERIAL**

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

5.7 The SAT IMG noted the IATA Strategic Lateral Offset Procedure (SLOP) campaign which was prepared by the IATA Latin America and Caribbean Regional Coordination Group (LATAM/CAR RCG) for the Europe and South America (EUR/SAM) Corridor during the month of August 2024. A flyer was published which the focussed on the safety benefit SLOP provides and airlines were highly encouraged to increase their uptake of SLOP.

5.8 The Group was informed about the outcome of the Third and the Fourth meetings of the South Atlantic Safety Oversight Group (SAT SOG/03 in Sao Paulo Brazil & SAT SOG/04 virtual). The Summary of the meetings were presented together with the updates from the Project teams, the SOG action items and the SOG decisions.

5.9 The Group noted that the SAT SOG/05 meeting will be organised jointly with the SAT IMG/05 from 7 to 11 April 2025. (this needs still to be confirmed)

## **6. Any other business**

6.1 The Côte d'Ivoire Air Force together with ANAC presented Aeronautical Search and Rescue (SAR) System to the SAT IMG. The detailed presentation explained the national organisation (legal framework and regulation, civil aviation codes, the different stakeholders of the SAR coordination committee, the area of responsibility of the Abidjan RSC), the status of the Ivorian SAR System (SAR financing, staffing, SAR agreements with neighbouring States, SAR exercises), the Abidjan RSC organisation as well as the airborne,

sea and ground assets (some of the air assets are not only dedicated to SAR). The CI-SAREX 2024, which simulated a crash of a Cessna Caravan on its way from Lome, Togo to Abidjan, Côte d'Ivoire was presented and the results from the exercise discussed. Future challenges (ensure full coverage of the area of responsibility of Abidjan RSC, increase the center's response capacity in distress situations, strengthening national and international collaboration in the search and rescue of aircraft in distress) were highlighted and the Group expressed their appreciation for the very informative information exchange and the videos. The SAT IMG members also agreed to support Côte d'Ivoire in the strengthening of international SAR collaboration and signing of MoUs by reaching out to their individual national SAR contacts. (Action Item 04-05)

*6.a) Future work programme and follow-up actions*

6.2 The list of all SAT IMG Decisions, as attached in Appendix E and the Action Item list as attached in Appendix D were endorsed by the SAT IMG/04.

6.3 All SAT IMG meeting documentation will be made available on the ICAO Secure Portal <https://portallogin.icao.int/>, Group name **SATIMG** (all caps, no space). IATA pointed out that it is essential to respect the deadlines for submission of the SAT IMG working paper/information papers as they might require internal coordination with other stakeholders in preparation for discussion at the IMG meeting.

6.4 The Chairman thanked all SAT IMG participants for the timely submission of the working papers, the very active discussions and the continuous support to the harmonisation and implementation activities.

*6.b) Next meetings*

6.5 The Group recalled that the next meeting (SAT IMG/05) would be organised jointly with a SAT SOG meeting in April 2025 (7 to 11 April 2025) at the ICAO SAM Office in Lima, Peru (this needs still to be confirmed).

6.6 The SAT IMG/06 meeting would be organised in the October/November 2025 timeframe in Cabo Verde, tbc.

6.7 In the closing remarks, all SAT IMG participants expressed their strong support in conducting the SAT IMG meetings as face-to-face meetings. The agenda driven discussions and the possibility to have side meetings are more productive and strongly supported the achievement of the meeting objectives as well as the successful outcome of the SAT IMG.

*6.c) Report to the SAT SG/02*

6.8 The report to SAT SG/02 will be prepared for the upcoming meeting in December 2024.

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**APPENDIX A — LIST OF PARTICIPANTS**

*(paragraph 0.3 refers)*

**BRAZIL**

Jose PEREIRA DOS SANTOS NETO (remote)  
Marcos VINICIUS DE OLIVEIRA (remote)  
Josenilda BARBOSA GOMES (remote)

**CAPE VERDE**

Micael DELGADO LIMA MORENO  
Wando PACHITO  
Adilson VAZ

**GHANA**

Daniel DOE  
Daniel Ansah LARBI  
Daniel NARTEY  
Theophilus Joe QUAYE

**IVORY COAST**

Yara Joseph ASSIELOU  
Ariel TRAORE  
LCL Theophile DOUA  
CAP Tape Theodore GNETO  
CDT Joelle Estelle GNONKONDE  
LT Levi GUE

**PORTUGAL (SAT IMG Chair)**

Luis TOJAIS

**SENEGAL**

Abibou MBAYE  
Papa Dibocor SENE

**SOUTH AFRICA**

Martin COOPER (apologies)

**SPAIN**

Alexander DORTA FUMERO  
Eduardo ORTUNO VILLAPALOS  
Mikel PINEIRO ZABALETA  
Mauricio RUIZ ROLLE

**UNITED STATES**

Holly KING

**ASECNA**

Mi Fernande Jocelyne ABY épse DJIA  
Jean Baptiste ASSOGBA  
Mamour DIOUF  
Arturo Nieto ESONO MBUY  
Eric Guiraud INANAN  
Yao Paulin KOUASSI  
Indrissa N'DIAYE  
Moustapha THIOUNE  
Cosse WADE  
Kisito Zida ZABSONRE

**IATA**

Chris MICHALAKIS (remote)

**AAMAC (RSOO)**

Ali Mahamat MOUSSA

**ARMA (South Africa)**

Nonjabulo GUMEDE

**SAT DMO (Brazil)**

Virginia THAÍS GUEDES MIGNONI EVARISTO

**ICAO EURNAT**

Sven HALLE  
Leyla SULEYMANOVA (secretarial support)

**ICAO REGIONAL OFFICERS**

Serge TCHANDA , ICAO WACAF  
Fernando HERMOZA, ICAO SAM (remote)



**APPENDIX B — MEETING DOCUMENTATION***(paragraph 0.3 refers)*

| <b>WP</b> | <b>AI</b> | <b>Title</b>                                                                                                     | <b>Presented by</b>               |
|-----------|-----------|------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| WP01      | 1         | Draft Agenda                                                                                                     | Secretariat                       |
| WP02      | 1         | SAT IMG action item list and SAT IMG decisions                                                                   | Secretariat                       |
| WP03      | 2d        | EUR-SAM corridor PBCS IT report                                                                                  | ESCIT                             |
| WP04      | 2d        | PBCS Performance Monitoring in the EUR/SAM Corridor                                                              | SATMA                             |
| WP05      | 4         | EUR-SAM corridor application of separation minima                                                                | ESCIT PT                          |
| WP06      | 2e        | South Atlantic airspace delineation                                                                              | USA/Secretariat                   |
| WP07      | 2e        | Role of assessing technical and operational errors in implementation planning and ongoing system risk assessment | USA                               |
| WP08      | 2         | State report Dakar FIR                                                                                           | ASECNA                            |
| WP09      | 2         | State report Santa Maria FIR                                                                                     | Portugal                          |
| WP10      | 2         | State report Canarias FIR                                                                                        | ENAIRES, Spain                    |
| WP11      | 2a        | Traffic forecast EURSAM corridor until 2026                                                                      | SATMA                             |
| WP12      | 2a        | Atlantico FIR updates                                                                                            | DECEA, Brazil                     |
| WP13      | 2d        | Implementation status of PBCS in Brazil                                                                          | DECEA, Brazil                     |
| WP14      | 4a        | SAT Doc 002 contingency plan update proposal                                                                     | DECEA, Brazil                     |
| WP15      | 3b        | LHD reporting                                                                                                    | ARMA                              |
| WP16      | 4         | SAT DMO actions on the SAT upcoming meetings                                                                     | SAT SG<br>Secretariat/<br>SAT DMO |
| WP17      | 2         | Ghana state report                                                                                               | Ghana                             |
| WP18      | 2         | State report                                                                                                     | Cabo Verde                        |
| <b>IP</b> | <b>AI</b> | <b>Title</b>                                                                                                     | <b>Presented by</b>               |
| IP01      | 1         | Meeting schedule                                                                                                 | Secretariat                       |
| IP02      | 1         | List of meeting documents                                                                                        | Secretariat                       |
| IP03      | 1         | ICAO update                                                                                                      | Secretariat                       |
| IP04      | 1         | NAT IMG64 report                                                                                                 | Secretariat                       |
| IP05      | 1         | NAT SOG30 report                                                                                                 | Secretariat                       |
| IP06      | 5         | SAT SOG03 outcome                                                                                                | Secretariat                       |
| IP07rev   | 3         | UN866 dualization, progress report                                                                               | ESCIT                             |
| IP08      | 3         | EUR-SAM corridor improvements                                                                                    | ESCIT                             |
| IP09      |           | Withdrawn                                                                                                        |                                   |
| IP10      | 2e        | South Atlantic Safety Awareness Campaign SLOP                                                                    | Secretariat                       |

**APPENDIX C — LIST OF APPENDICES**

| <i>Attached:</i> |                                                |          |          |
|------------------|------------------------------------------------|----------|----------|
| Appendix A       | SAT IMG/04 List of Participants                | Para 0.3 |          |
| Appendix B       | List of Documents                              | Para 0.3 |          |
| Appendix C       | List of Appendices                             | Para 6.2 |          |
| Appendix D       | SAT IMG/04 Action Items List                   | Para 6.2 |          |
| Appendix E       | SAT IMG/04 Decisions                           | Para 6.2 |          |
| Appendix F       | PBCS Implementation Checklist ESC              |          | separate |
| Appendix G       | SAT Doc 002, 2 <sup>nd</sup> edition, Nov 2024 |          | separate |
| Appendix H       | SAT Doc 003, 1 <sup>st</sup> edition, Nov 2024 |          | separate |
| Appendix I       | SAT OPS Bulletin 2024_001, Nov 2024            |          | separate |

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**APPENDIX D — ACTION ITEM LIST***(paragraph 6.2 refers)*

| <b>ID #</b> | <b>ACTION</b>                                                                                                                                                                                                                        | <b>REMARKS</b>            | <b>WHO</b>                     | <b>WHEN</b>                                |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|--------------------------------|--------------------------------------------|
| 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<br>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                               |
| 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<br>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<br>SAT IMG members | After SAT delineation<br>SAT IMG/05        |
| 02-01<br>SG | Based on the SAT Area description in the Draft SAT Doc002, develop a map of the SAT Area (including EUR/SAM corridor and AORRA)<br>The delineation of the SAT Area be coordinated between SAT IMG and SAT SOG relevant project teams | SAT IMG/2 SoD<br>SAT SG   | Secretariat<br>SAT IMG members | 31 OCT 2024<br>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<br>IATA                                     | SAT IMG/05                           |
| <del>03-03</del> | <del>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</del>             | <del>SAT IMG/3 SoD<br/>PBCS IS PT<br/>outcome and written<br/>consultation</del> | <del>PBCS IS PT<br/>Secretariat<br/>SAT SOG</del> | <del>30 June 2024</del>              |
| 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<br>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<br>Spain<br>Cabo Verde<br>Brazil           | SAT IMG/04<br>SBAO by<br>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,<br>Para.                                                          | Secretariat<br>SAT IMG members                    | SAT IMG/05                           |
| 04-02            | ASECNA to support Ghana in the finalisation of the AIDC implementation (LoA signing) with Ouagadougou, Niamey and Brazzaville                                                     | SAT IMG/4 SoD,<br>Para.                                                          | ASECNA<br>Ghana<br>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,<br>Para.                                                          | ASECNA<br>Spain<br>Cabo Verde<br>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,<br>Para.                                                          | Secretariat<br>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,<br>Para.                                                          | Secretariat<br>SAT States                         | SAT IMG/05                           |

| <b>ID #</b> | <b>ACTION</b>                                                                                      | <b>REMARKS</b>          | <b>WHO</b>                                      | <b>WHEN</b> |
|-------------|----------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------------------|-------------|
| 04-06       | Review and comment on the proposed changes from SAT DMO to the SAT Doc 001 Handbook                | SAT IMG/4 SoD,<br>Para. | Secretariat<br>RMAs<br>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,<br>Para. | Secretariat<br>ASECNA<br>Ghana<br>Cote d'Ivoire | SAT IMG/05  |
|             |                                                                                                    |                         |                                                 |             |

## APPENDIX E — SAT IMG/04 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.                                                        | - State Letter for nominations sent, series of virtual meetings<br>- PT report presented at SAT IMG/03<br>- PBCS implementation plan integrated into ESCIT activities with phase 1 for EUR/SAM corridor<br>- 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 | Invite all SMEs for a virtual meeting in Q1/2025<br>Develop an AIDC follow up action plan<br>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                                                                                                | Develop an AIDC implementation roadmap for the involved FIRs<br>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                                                                             | Reference material for the SAT Service Development Roadmap<br>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                                                                                                                                                                 | Reference material for the SAT Service Development Roadmap<br>Present an update at SAT IMG/05                                                                                                                                                                    | Ongoing   |
| SAT IMG/03-5    | <del>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 – Acera FIRs as a mitigation measure for the presented safety aspects</del>                                                                            | <del>Series of virtual expert meetings with SMEs from ANSPs and IATA<br/>Drafting of a SAT OPS Bulletin<br/>Coordination with SAT SOG, written SAT IMG approval process</del>                                                                                    | Completed |



| Reference/Title              | Description                                                                                                                                                                                                                                                                                                                                                                                                                           | Comments                                                                                                                                                                                                                                       | Status    |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                       | <a href="#">Publication of SAT OPS Bulletin before SAT IMG/04</a>                                                                                                                                                                              |           |
| 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 | Finalize implementation activities within a series of ESCIT meetings<br>Present updates at SAT IMG/04<br>ASECNA will confirm readiness for implementation AIRAC 23 JAN 2025 before 21 OCT 2024                                                 | Ongoing   |
| <a href="#">SAT IMG/03-7</a> | <a href="#">That the SAT IMG endorses the SAT Contingency Plan (SAT Doc 002, 1st edition, February 2024)</a>                                                                                                                                                                                                                                                                                                                          | <a href="#">Publication of SAT Doc 002 via ICAO SL</a><br><a href="#">Promulgation of SAT Doc 002 by all SAT members</a><br><a href="#">Coordinate with SAT DMO the next version of SAT Doc 002 and present it at SAT IMG/04 for approval</a>  | 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                                                                                                                                                                                                                                                                                         | - Continuous update of the PBCS implementation plan at ESCIT meetings<br>- Presentation of updates at SAT IMG/05                                                                                                                               | New       |
| SAT IMG/04-2                 | That the SAT IMG request SAT States to:<br>d. confirm their FIR boundaries as outlined in the WP06 xls file,<br>e. define an operational geographical line (LAT LONG coordinates) between domestic and oceanic airspace,<br>f. provide vertical limits and airspace classifications for airspace to be included in the SAT Area                                                                                                       | - Individual messages to SAT States by 18 OCT 2024<br>- States to report back by 15 NOV 2024<br>- Initial update at SAT SG/02<br>- Discussions on phase 2 and PT at SAT IMG/05                                                                 | New       |
| SAT IMG/04-3                 | 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.                                                                                                                                                                                                    | - Series of virtual expert meetings (led by SATMA) with SMEs from ANSPs , CAAs and RMAs<br>- Drafting of a new SAT Doc 00X<br>- Presentation of the SAT Doc 00X for discussion at SAT IMG/05<br>- Coordination of the new SAT Doc with SAT DMO | New       |
| SAT IMG/04-4                 | 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.                                                                                                                                                                                                                             | - State Letter with LHD guidance material to be send before APIRG<br>- Series of ARMA webinars for individual SAT States                                                                                                                       | New       |

| Reference/Title | Description                                                                                                                                                                                           | Comments                                                                                                                                                                                            | Status |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                 | 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                                                  | - Report back to SAT IMG/05                                                                                                                                                                         |        |
| SAT IMG/04-5    | 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. | - Series of virtual expert meetings (led by the FAA) with SMEs<br>- Drafting of a new SAT Doc 00X<br>- Presentation of the SAT Doc 00X for discussion/approval at SAT IMG/05                        | New    |
| 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<br>- Promulgation of SAT Doc 002 by all SAT members<br>- 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<br>- Promulgation of SAT Doc 003 by all SAT members<br>- 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<br>- Coordinate with SAT DMO the next version of the SAT OPS Bulletin 2024_001 and present it at SAT IMG/05          | New    |

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