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

**Special Atlantic Coordination Meeting (ACM-S) - SoD**

(Prepared by the Secretariat)

**SUMMARY**

This paper provides the summary of discussions (SoD) from the Special Atlantic Coordination Meeting (ACM-S), which was held in conjunction with the World ATM Congress in Madrid, Spain from 23 to 24 June 2022, **for review and actions.**

**1. Background**

1.1 The Special Atlantic Coordination Meeting (ACM-S) was held in Madrid, Spain from 23 to 24 June 2022. The meeting was organised jointly between the ICAO European and North Atlantic Office, Paris (EUR/NAT), the ICAO North American, Central American and Caribbean Office, Mexico (NACC), the Eastern and Southern African Office, Nairobi (ESAF), the South American Office, Lima (SAM) and the Western and Central African Office, Dakar (WACAF).

1.2 The main objective of the Special Atlantic Coordination Meeting was to re-start the South Atlantic (SAT) discussions on the harmonization and cross-regional coordination for the enhancement of remote oceanic operations in the Atlantic that were interrupted during the COVID-19 crisis. The full SoD of the ACM-S meeting is provided at **Appendix B.**

1.3 The ACM-S meeting approved 10 actions, concerning to SAT SOG and/or SAT IMG activities. A follow up Table and comments on the actions is presented at **Appendix A**, supported with references from SAT-24 and S-SAT meetings.

1.4 Trinidad and Tobago recommended that, as implemented by SAT IMG group, the SAT SOG documentation would also be made available at the ICAO Secure Portal. ICAO SAM Secretariat has already implemented the group named **SATSOG** (all caps, no space). See the link:

<https://portallogin.icao.int>

**2. Action by the Meeting**

2.1 The meeting is invited to:

- a) note the information provided;
- b) consider the different actions/aspects from the ACM-S action item list in preparation for the SAT SOG/1 meetings in 2023; and
- c) take action as required.

## Appendix A

### FOLLOW UP - ACM-S ACTIONS

ID #	ACTION	REMARKS	WHO	WHEN	COMMENTS
ACM-S-01	States in the SAT area to submit their occurrence reports, including Large Height Deviation (LHD) reports, as well as the monthly data returns to the respective regional monitoring agencies	ACM-S SoD, Para. 2.1.	All	With immediate effect	<b>WHO : ALL TO BE REVIEWED AT SAT SOG /01</b>
ACM-S-02	Develop and present a detailed AIDC implementation activity plan and associated implementation status/updates to the SAT IMG/1 meeting	ACM-S SoD, Para. 2.3.	All	SAT IMG/1	ON GOING SEE SAT IMG/01 SoD Action Item R-02
ACM-S-03	Review the coordinated PBCS monitoring process for all FIRs in the SAT Region and discuss this with the RMAs and RMACG	ACM-S SoD, Para. 3.2	All	SAT IMG/1	ON GOING SEE SAT IMG/01 SoD Decision SAT IMG/01-3
ACM-S-04	Prepare an action item table from the S-SAT SoD Appendix D, with updated information on implementation status	ACM-S SoD, Para. 5.1.	Secretariat SAT IMG chair SAT SOG chair	SAT IMG/1 SAT SOG/1	<b>NOT APPLICABLE TO SAT SOG ***</b>
ACM-S-05	Proceed with ToRs implementation in close coordination with RMAs, States, ANSPs, airspace users and stakeholders	ACM-S SoD, Para. 7.7.	SAT SOG	SAT SOG/1	<b>ITEM 2</b>
ACM-S-06	Submit the survey on data collection to the three RMAs, analyze the results obtained, and define the feasibility to implement a common repository of safety occurrences	ACM-S SoD, Para. 7.7.	<b>SAT SOG</b>	<b>SAT SOG/1</b>	<b>ITEM 3</b>

ID #	ACTION	REMARKS	WHO	WHEN	COMMENTS
ACM-S-07	Address the pending items of Conclusions SAT 24/06 and SAT 24/07, regarding traffic statistics and reduction in collision risk assessment and LHD, respectively	ACM-S SoD, Para. 7.7.	SAT SOG	SAT SOG/1	ITEM 4 Conc SAT 24/06**  ITEM 5 Conc SAT 24/07**
ACM-S-08	Submit a progress report to the SAT SG meeting	ACM-S SoD, Para. 7.7.	SAT SOG	SAT SOG/1	On going
ACM-S-09	State Letter for the nomination of SAT-IMG members	ACM-S SoD, Para. 8.1.	Secretariat SAT IMG chair	August 2022	COMPLETED
ACM-S-10	Collect data/information from the SAT ANSPs and airspace users in preparation of SAT IMG/1	ACM-S SoD, Para. 8.5.	Secretariat All SAT IMG members	SAT IMG/1	COMPLETED

\*\* Note: See the following references from SAT/24:

#### **CONCLUSION 24/06: TRAFFIC STATISTICS**

That,

- a) *ASECNA and SATMA are requested to conduct and provide statistic on navigation specifications of aircraft which operate in the EUR/SAM corridor and report to SAT 25;*
- b) *FAA is requested to share global traffic forecast to assist SAT Group with forward planning, and the SAT Group to obtain from the NAT its existing programmes in traffic forecasting and statistical analysis tools;*
- c) *ARMA and CARSAMMA to explore the possibility of providing the SAT with additional traffic statistics and analysis to enable the SAT Group to make more accurate and predictable planning decisions;*
- d) *All SAT States/FIRs in the AFI Region which have not done so, are requested to provide traffic data from January 2017 to March 2019 to ARMA, not later than 30 June 2019, to be included in the Collision Risk Assessment 13 which commences on 1 July 2019; and*

- e) *SAT Regional Monitoring Agencies are urged to consider as far as practicable, harmonization of reporting subjects and/or format for traffic statistics, taking into consideration the feedback provided by the mathematicians computing the TLs, and in collaboration with the NAT where feasible.*

*Note: It is recommended to use ICAO sources of statistical forecast as bases for Regional planning decisions.*

**CONCLUSION 24/07: REDUCTION IN COLLISION RISK ASSESSMENT AND LARGE HEIGHT DEVIATION LHD**

*That,*

- a) *Civil Aviation Authorities of SAT member States/FIRs are requested to ensure that height monitoring is conducted regularly for all aircraft on their registry.*
- b) *SAT States/FIRs that have not done so are requested to implement AIDC and to address the Human Factors in Coordination Failures which are factors impacting negatively on the Target Levels of Safety and report to SAT 25.*
- c) *SAT States/FIRs are urged to give priority attention to addressing Coordination Failures between ACCs in order to enhance RVSM safety, including the implementation of awareness programmes to mitigate human error induced Coordination Failures, and conduct remedial actions to mitigate the risks.*

**\*\*\*Note: Reference from S-SAT Appendix D**

**APPENDIX – D****LIST OF SAT PRIORITY PROJECTS FROM ACM/I*****First priority***

1. Contingency plans harmonization;
2. Performance based (PBCS/PBN) separation minima implementation;
3. Space based ADS-B implementation and operation.

***Second priority***

4. AIDC/AMHS implementation;
5. Harmonization of NAT and SAT CONOPS elements to the extent possible;
6. Assignment of flight levels;
7. HF communication issues (urgent safety issue);



*International Civil Aviation Organization*

## **Special Atlantic Coordination Meeting (ACM-S)**

Madrid, Spain, 23-24 June 2022

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# **SUMMARY OF DISCUSSIONS**

## **0. Introduction**

0.1 The Special Atlantic Coordination Meeting (ACM-S) was held at the kind invitation of the Spanish Ministry of Transport, Mobility and Urban Agenda, in Madrid, Spain from **23 to 24 June 2022**. The meeting was organised jointly between the ICAO European and North Atlantic Office, Paris (EUR/NAT), the ICAO North American, Central American and Caribbean Office, Mexico (NACC), Eastern and Southern African Office, Nairobi (ESAF), South American Office, Lima (SAM) and Western and Central African Office, Dakar (WACAF). The main objective of the Special Atlantic Coordination Meeting was to re-start the South Atlantic (SAT) discussions on the harmonization and cross-regional coordination for the enhancement of remote oceanic operations in the Atlantic that were interrupted during the COVID-19 crisis.

0.2 The ACM-S meeting was attended by 51 participants (hybrid format) from 12 States, 3 Regional Monitoring Agencies, 3 International Organisations and staff from 4 ICAO Regional Offices. The lists of participants is provided in **Appendix A**.

0.3 The meeting was opened by Mr. Florencio Cano Serrano, Head of Air Navigation Strategy, Spanish Ministry of Transport, Mobility and Urban Agenda, who pointed out the importance of harmonizing operations, infrastructure and programmes over the entire Atlantic Ocean, including the South Atlantic.

0.4 Mr. Prosper Zo'o Minto'o (Regional Director, WACAF Office) chaired the meeting with support from Mr. Elkhan Nahmadov (Deputy Regional Director, EUR/NAT Office), Mr. Sven Halle (SAT IMG Secretary from the ICAO EUR/NAT Office) and Mr. Fernando Hermoza (SAT SOG Secretary from the ICAO SAM Office). Ms. Keziah Ogutu, from the ICAO ESAF Office attended remotely. Administrative assistance was provided by Mrs. Patricia Cuff from the ICAO EUR/NAT Office.

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

- a) Introduction, Agenda, Meeting documentation, ICAO update;
- b) Summary of ACM/2 results and recommendations, Status of ACM/2 conclusions;
- c) Report from SAT States and stakeholders on activities since ACM/2 (including PBCS, AIDC, ADS-B), information on VOLCEX Events, ICAO Assembly A41 Expectations;
- d) Presentation of new SAT handbook and working structure;
- e) Review of SAT/24 Task list and implementation status of essential operational improvements;
- f) Reports from Regional Monitoring Agencies (RMAs) (SATMA-CARSAMA-ARMA);
- g) Inaugural SAT IMG and SAT SOG sessions with baseline from Day 1 presentations;
- h) SAT IMG and SAT SOG development of work programme, implementation priorities/timelines and meeting schedules;
- i) ACM-S closing with conclusions for SAT SG and involved PIRGs, AOB and planning for ACM/3 meeting.

## 1. Meeting documentation and ICAO update

1.1 The ACM-S noted that 9 working papers, 4 information papers and 3 presentations had been prepared and submitted for consideration. The lists of documents is provided in **Appendix B**.

1.2 The Meeting was provided with information on ICAO-related activities of potential interest, such as Amendments to ICAO Annexes, Procedures for Air Navigation Services, State Letters and Electronic Bulletins. The Meeting was also informed about approved amendments for the *Regional Supplementary Procedures* (SUPPs, Doc 7030), as well as the Proposal for Amendment to the SUPPs still pending. Additional information concerning updates affecting ICAO documentation (such as the North Atlantic Regional Documents (NAT Docs) and NAT OPS Bulletins which were issued by the North Atlantic Systems Planning Group (NAT SPG)) were presented and discussed. The Meeting also took note of the upcoming ICAO meetings at global and regional levels (hybrid meetings), as well as the planned regional and Global Aviation Training (GAT) courses.

## 2. Summary of ACM/2 results and recommendations, Status ACM/2 conclusions

2.1 The Meeting recalled the results from the Second Atlantic Coordination Meeting (ACM/2) which had taken place at ICAO Headquarters in Montréal, Canada from 18 to 20 February 2020 and especially reviewed the implementation status of ACM/2 conclusions and action items. The Meeting noted that the ACM2/1 Conclusion had been addressed with a State Letter that reminded the 12 States in the SAT area of their responsibility to submit their occurrence reports, including Large Height Deviation (LHD) reports, as well as the monthly data returns to the respective regional monitoring agencies. However, the Africa and Indian Ocean (AFI) Regional Monitoring Agency (ARMA) reported that no LHD reports had been received from the SAT States so far, which could also be related to the effects of the COVID-19 pandemic to the aviation system. The Meeting agreed that this important issue should be further monitored and that a progress report should be presented to the First meeting of the SAT Safety Oversight Group (SAT SOG/1) (**Action ACM-S/01**).

2.2 For the ACM2/2 Conclusion on the implementation of Strategic Lateral Offset Procedures (SLOP) and publication in their national aeronautical information publication (AIPs), the Meeting noted that all States in the SAT area had implemented SLOP procedures (together with associated AIP guidance material) since the ACM/2 meeting. After a short discussion on the data from the ARMA, South Africa confirmed that the SLOP implementation had also been implemented within the Cape Town Flight Information Region (FIR). The Meeting expressed its appreciation for the full implementation of these important procedures which could significantly reduce the vertical collision risk in the airspace of SAT States.

2.3 Concerning the implementation of ATS Inter-facility Data-link Communications (AIDC) which had been addressed in the ACM2/3 Conclusion for the further harmonisation of Air Traffic Management (ATM) system coordination between all involved Air Navigation Service Providers (ANSP), the Meeting noted the different implementation activities from the involved States and recognised the impacts/delays on the planned implementation activities due to the COVID-19 pandemic effects. It was noted that implementation of this Conclusion was especially important within the EUR/SAM corridor for the harmonisation of ATM systems and the coordination between all involved ANSPs, resulting in reduction of air traffic controller (ATCO) workload, enhancing safety and addressing the missing flight plan (FPL) issues. The Meeting agreed that the AIDC implementation activities should be included in the work programme of the First meeting of the SAT Implementation Management Group (SAT IMG/1) (**Action ACM-S/02**).

2.4 With regard to the ACM/2 working sessions' actions, the Meeting noted that for Session A, the activities of Cabo Verde to join the NAT SPG as an observer had been postponed due to the COVID-19 pandemic. For Session B, the Meeting was informed that due to the joint work of France and ASECNA (Agency for Aerial Navigation Safety in Africa and Madagascar), a SAT Handbook (including a new structure and new Terms of References (ToRs) for the Steering Group (SAT SG), Implementation Management Group (SAT IMG) and Safety Oversight Group (SAT SOG)) had been developed. The new structure was agreed at a special SAT meeting in July 2021 and elections for chairpersons of all the new groups were conducted in October 2021. For Session C, working papers had been submitted to the current meeting which would address the implementation of the agreed essential improvements. The discussion on Safety Management, Safety

Oversight/Monitoring and Just Culture implementation was referred to the SAT SOG meeting. Session D actions had been addressed by Action ACM-S/02 above.

### **3. Report from SAT States and stakeholders on activities since ACM/2 (including PBCS, AIDC, ADS-B), information on VOLCEX Events, ICAO Assembly A41 Expectations**

3.1 ASECNA presented a working paper with the results from the performance based communications and surveillance (PBCS) monitoring tests carried out in the Dakar FIR from 1 to 30 March 2020. These tests had been carried out following SAT conclusion 24/02: "Planning, Implementation and Monitoring of PBCS" and were intended to confirm the compliance of the communication and surveillance means of the Dakar ATM system with PBCS requirements (assessment of the Actual Surveillance Performance (ASP) against the RSP 180 requirements and the Actual Communication Performance (ACP) against the RCP 240 specification for the fleet using Dakar Oceanic Airspace). The two tests indicated that all RSP/RCP criteria had been met and that 72% of all aircraft operating in the Dakar Oceanic airspace were PBCS-approved.

3.2 During the discussions, it was also pointed out that PBCS monitoring for the States in the SAT area which involved three RMAs was challenging. The RMAs had been tasked to include PBCS monitoring in their work programmes, but questions were raised if it would be more beneficial to establish a regional PBCS coordinated monitoring programme together with a singular monitoring agency for all FIRs in the SAT area. The Meeting agreed that this issue should be further discussed at the SAT IMG/1 meeting (**Action ACM-S/03**) and that the ICAO Regional Monitoring Agencies Coordination Group (RMACG) should also be involved in these discussions.

3.3 A working paper on the status of AIDC implementation in Senegal with the adjacent Air Traffic Services Units (ATSUs) in the SAT was presented by ASECNA. The working paper highlighted the introduction of a project-based approach (with 22 deliverables that include safety assessment, pre-implementation actions, change implementation, post-implementation assessment) which had been used in the AIDC implementation between Dakar and Abidjan in Côte d'Ivoire. AIDC has been operational between these 2 ATSUs since 10 November 2021. ASECNA also presented the status of AIDC implementation with Brazil, with the first trials having started in January 2022 and where full implementation could be expected at the end of 2022. The Meeting was requested that States be invited to share their AIDC plans and coordinate with concerned States for an expeditious AIDC implementation. Cabo Verde reported in the discussions that, due to delays in their ATM system modernization, the AIDC-related implementation activities were planned to restart at the end of 2022 and that contacts with Santa Maria Oceanic Control Area (OCA) would be initiated in early 2023. The Meeting thanked ASECNA for the information and proposed that the AIDC implementation topic be included in the work programme of the SAT IMG and the table of AIDC implementation status from the ASECNA working paper be incorporated.

3.4 The Meeting was presented with information from ASECNA on the implementation of space-based Automatic Dependent Surveillance-Broadcast (ADS-B) and the transition to Advanced Surveillance Enhanced Procedural Separations (ASEPS). Starting with initial trials in 2020, ASECNA used air traffic surveillance live stream data from space-based ADS-B technology in all air traffic control centers. During this trial period, ASECNA observed in their FIRs that the rate of aircraft equipped with a transponder with extended squitter was greater than 90%. The survey also showed that within the Dakar Oceanic FIR 95 % of aircraft are equipped with CPDLC (Controller Pilot Data Link Communications) and about 90% have RNP 4 (Required Navigation Performance) capability. Therefore ASECNA decided to use space-based ADS-B data for flights with direct routings and for flights entering from any FIR border point. In addition, space-based ADS-B has been introduced in ASECNA's terminal control area (TMA) and upper control area (UTA) with a lower separation minima of 10 NM. The Meeting took note of the planned ASEPS expansion into oceanic airspace where currently a 80 NM longitudinal separation was being applied and where, by using space-based ADS-B, a new target horizontal separation minimum could be 20 NM. In the discussions, the issue of aircraft equipage numbers with ADS-B transponders was raised as there had already been a number ADS-B equipage carriage mandates issued in different Regions (e.g. Europe with the European Union Aviation Safety Agency (EASA), the United States' Federal Aviation Administration (FAA), AFI Region from 2023 and 2025 onwards).

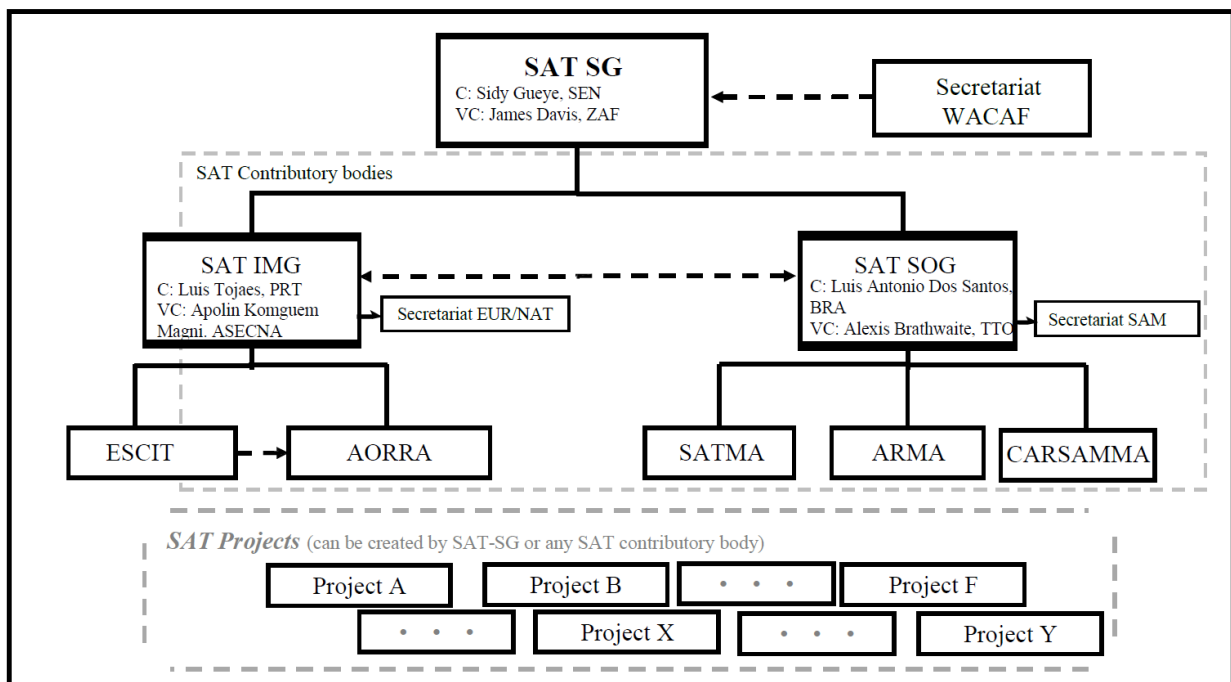
Therefore the International Air Transport Association (IATA) was invited to assess the actual equipage data of airlines that operate in the SAT and if that data could be made available. IATA accepted this notion but stated that it would need to coordinate with the involved IATA region before the data could be shared. Additionally, IATA questioned whether a space-based ADS-B implementation cost benefit analysis (CBA) had been conducted.

3.5 The ICAO Secretariat presented information about the Volcanic Ash Exercises (VOLCEX) which were organised annually in the EUR and NAT Regions. The objectives of these exercises were to improve the response to volcanic eruptions and volcanic ash contamination by the relevant national supervisory authorities, service providers (ATS, AIS, ATFM, MET) and airspace users as well as improve the common *Volcanic Ash Contingency Plan for the EUR and NAT Regions* (EUR Doc 019, NAT Doc 006, Part II). The details of the VOLCEX21 were presented to the Meeting as well as the planning, attributes and milestones for the VOLCEX22 (17 November 2022) which would include use of the Dynamic Airborne Reroute Procedure (DARP) at this event. The Meeting was invited to note the information provided for preparation of any volcanic events in the AFI/CAR/SAM Regions.

3.6 A presentation on the ICAO priorities for the 41st ICAO Assembly (A41) and the next triennium was given to the meeting, highlighting the focus on resilience and innovation. Several key priorities within all 5 ICAO Strategic Objectives that were in full compliance with the United Nations Sustainable Development Goals (SDGs) were presented.

**4. Presentation of new SAT Handbook and working structure**

4.1 The Meeting recalled the results from the *Special Meeting On The Improvement Of Air Traffic Services Over The South Atlantic* (S-SAT) which had been organised as a virtual meeting on 14 July 2021. At this meeting, the new SAT structure, the SAT Handbook and the ToRs of the new SAT parent and contributory groups (SAT Steering Group SAT SG, SAT Implementation Management Group SAT IMG and SAT Safety Oversight Group SAT SOG) were agreed. In addition, the elections of the chairpersons (which were aimed at ensuring a geographical distribution amongst the SAT States as well as the involvement of all ICAO Regional Offices) took place on 29 October 2021. The Handbook and the ToRs of all three Groups were introduced and the new organizational chart is as follows:



4.2 The ACM-S was informed that Mr. Albert Taylor, Regional Officer WACAF, who had been vital and instrumental to all these SAT developments since the ACM/1 meeting, retired on 31 October 2021. The Meeting recognized that without his dedicated contributions, the transition to the new SAT structure would not have been possible and invited the Chairman to convey this message to Mr. Taylor.

## 5. Review of SAT/24 Task list and implementation status of essential operational improvements

5.1 The Meeting went briefly through the SAT/24 action item list and in accordance with the Action S-SAT/03: *That the SAT SG, IMG and SOG include as a part of their work programmes, the status of SAT priority projects in progress in Appendix D to facilitate the implementation of appropriate safety and operational improvements in the SAT area*, the Meeting agreed that a table of action items (with the actual status of completed or still open) be developed for the first SAT IMG and SAT SOG meetings so that status data would not be lost in the transition process (**Action ACM-S/04**).

5.2 France gave a presentation of the DIADEME (the Digital Airspace Design and Performance Modelling Environment) tool which had been created by France Aviation Civile Services (FRACS) in 2020. DIADEME is based on simulation tools from the French DSN (Direction des Services de la Navigation Aérienne) and specialized performance analysing tools such as ELVIRA<sup>®</sup>, IMPACT. It is accessible online and offline, from anywhere in the world to support collaboration between each contributor of a project. The DIADEME tool can be used for:

- Airspace design activities based on a performance-oriented approach by easily assessing multi-criteria: environment, capacity, safety, etc.;
- Performance evaluation for a new type of aircraft;
- Simulation of the effect of a fleet change for airline companies;
- Education and Training;
- And more...

5.3 DIADEME integrates, at each stage of a study, a complete and objective evaluation of the performance of the airspace concept, or the new aircraft, being developed. This allows a good balance between operational, economic, and environmental performances, a gain of 30% of productivity in airspace study when compared to the usual methodologies. The Meeting thanked France for the interesting demonstration of the tool.

## 6. Reports from RMAs (SATMA-CARSAMA-ARMA)

6.1 The South Atlantic (SAT) Regional Monitoring Agency (SATMA) presented their studies and required assessments for the 2021 CRM (Collision Risk Model) for flights in the EUR/SAM Corridor. In addition, SATMA also presented data on periodical statistical reports regarding air traffic evolution in the corridor. The Technical Collision Risk for Canarias, SAL 1, SAL 2, Dakar 1, Dakar 2 and Recife/Atlantico FIRs was presented for 2021 and 2025 with consequential lateral risk and vertical technical risk presenting values below the TLS (Target Level of Safety), vertical operational risk was above the TLS in the Canarias and Dakar locations, as it included LHDs. The main source for LHDs was identified as coordination errors between ATC units and that appropriate risk mitigation/correction measures should be applied. During the discussions it was pointed out that due to the introduction of Just Culture, the numbers of reports had increased. IATA suggested that increased reporting was a good indicator of culture change and with increased reporting, scrutiny and analysis of safety events would support better risk mitigation measures. Furthermore, IATA informed the Meeting that airlines were not getting their preferred flight levels (FLs) and this had a direct and negative impact on airspace/airline efficiency, sustainability and increased the overall carbon footprint. However it was stated by SATMA that more accurate and detailed information, for traffic measures; Flight Level compliance and LHDs, should be made available in order to improve the scrutiny of reported events. The Meeting commented on the presentation of the Collision Risk figures and recommended the use of the exponential value  $\times 10^{-9}$  for better comparison. SATMA also presented the outcome of the ESCIT (EUR/SAM Air space Concept Implementation Team) and the traffic statistics from the EUR/SAM corridor.

6.2 CARSAMMA, the monitoring agency for the CAR and SAM Regions, gave a presentation on their calculations of the vertical collision risk in the Atlantico FIR for 2021, using the CRM methodology which involved two inputs: Reduced Vertical Separation Minima (RVSM) Air Movement files of the studied FIRs, and LHD occurrences in these FIRs. The analysis showed that the estimated total risk for the Atlantico FIR was  $4.21 \times 10^{-9}$  below the TLS ( $5.0 \times 10^{-9}$ ). Regarding the occurrence of vertical deviations (LHDs), CARSAMMA received 5 LHD reports in 2021. After analysis and validation based on the Risk CRM parameters, 4 of these LHDs were considered valid in the CAR/SAM Regions. These 4 LHDs occurred outside the EUR/SAM Corridor, basically from the Falkland/Malvinas Islands to the Ascension Island. Only 2 flight levels on these LHDs were crossed, however there were concerns with the wrong presence at these levels (502 minutes) without bilateral contact with ATC. The United States commented that the data which had been presented was difficult to compare and that the RMAs should be invited to present more harmonised data in future.

6.3 The Regional Monitoring Agency for the African and Indian Ocean FIRs, ARMA, showed their Collision Risk Assessment (CRA) for 2020, which, despite the lower traffic figures, was well above ( $51.6 \times 10^{-9}$ ) the TLS. The main reasons identified were: non-RVSM aircraft operating in RVSM airspace, wrong-level-flying, coordination failures and no communication with ATC for long durations. The safety benefits of the SLOP procedures had not been included in the CRA 15 2020 analysis. ARMA was working on providing traffic statistics on the new ARMA website, which would be launched on 8 August 2022 at the RVSM National Programme Manager (NPM) Workshop. SAT States had provided the required RVSM data for 2020 and 2021, but the 2022 data was coming to ARMA at a slower pace. The Meeting also noted that the RMAs had not been able to reach a conclusion on the harmonisation of a format for traffic statistics which subsequently would be submitted to the SAT Group. In the discussions, it was remarked that there was a need for a more harmonised approach/reporting between the three RMAs and that this should be discussed at the upcoming ICAO RMACG meeting in September 2022.

6.4 ARMA also presented their initial experiences with PBCS monitoring, as some AFI States had started issuing PBCS approvals for operators that had trans-regional operations. AFI registered operators that were PBCS approved and operate in PBCS airspace in other Regions have not been able to meet the benchmark of RSP 180 ASP  $\leq 90$ sec. This was a concern as all the reports from 2021 to May 2022 showed a majority of the airframes not being able to meet this RSP criteria. However for RCP 240 ACP  $\leq 180$  sec, the criteria has been met continuously. ARMA recommended that the airframes that were not performing to the required PBCS standard should not continue to file PBCS identifiers. A PBCS workshop was scheduled for the end of August 2022 for AFI States to discuss the PBCS implementation aspects and the practical aspects of PBCS data collation and timely transmission to ARMA.

## **7. Inaugural SAT SOG session with development of work programme, implementation priorities/timelines and meeting schedules**

7.1 The Safety Oversight Group (SAT SOG) presented a working paper with the planned activities to implement its ToRs, focussing on the monitoring of safety management of ATS in the SAT airspace. The Group would need to agree on the methodology and tools that would be used to implement and maintain a database of safety-related occurrences reported by RMAs, ANSPs, airspace users, Communications Service Providers (CSPs), States and relevant stakeholders.

7.2 In order to create a baseline, the SAT SOG should identify and validate regional safety-related data being monitored by the three RMAs, assess safety reporting and data quality, ensure all required data elements are evident, and eliminate redundant activities, etc. The core idea was that the data should be submitted by the RMAs to the South Atlantic repository and be supervised by the SAT SOG.

7.3 By collecting and compiling data, it would be possible to carry out the processing of Key Safety Performance Indicators (KPIs) for trend monitoring and, when appropriate, propose KPI revisions for approval by SAT SG.

7.4 As per the ToRs, the SAT SOG was expected to work closely with SAT States, ANSPs, Airspace Users, industry stakeholders, RMAs involved in the SAT area, and other relevant parties (other RMAs, States and ANSPs). For this purpose, the Group considered, among other elements, the creation of a

list with the contact details of SAT SOG stakeholders, and the elaboration of a communication plan with stakeholders.

7.5 As a result of the discussions, the SAT SOG proposed the following actions:

- a) the creation of a survey (based on the NAT CMA Terms of Reference ToRs) as proposed in **Appendix D** to this Summary of Discussions, which would be submitted to the three RMAs to verify the standardization of the data collected and their databases;
- b) a comparison of the survey results between the monitoring agencies; this assessment would enable the SAT SOG to identify its ongoing work processes and detect any discrepancies between them;
- c) a sample data collection from RMAs in the SAT area to be conducted by the SAT SOG to assess the feasibility of implementing a single database;
- d) the benchmarking of work processes with NAT SOG and NAT CMA; and
- e) the creation and implementation of the necessary measures to widely disseminate the database.

7.6 The Meeting recognized that the actions identified should allow the proactive addressing of LHD events and other safety related events, facilitating the analysis of each event jointly with the parties involved in order to identify mitigation measures. The Meeting also highlighted the lack of compliance by some States/ANSPs to implement a working data collection process, and further for those States, implementation should be completed as a matter of priority. The SAT SOG viewed this as a critical issue that needed to be addressed by SAT SOG/1.

7.7 Consequently, the Meeting concluded that the SAT SOG was encouraged to continue with the implementation of its Terms of Reference, emphasizing activities to monitor safety management of ATS delivery, ensuring the availability and categorization of reported occurrences, and providing statistical data related to safety assessment. The Meeting also agreed to the following action items for the SAT SOG:

- i. Proceed with ToRs implementation in close coordination with RMAs, States, ANSPs, airspace users and stakeholders (**Action ACM-S/05**);
- ii. Submit the survey on data collection to the three RMAs, analyze the results obtained, and define the feasibility of implementing a common repository of safety occurrences (**Action ACM-S/06**);
- iii. Address the pending items of Conclusions SAT 24/06 and SAT 24/07, regarding traffic statistics and reduction in collision risk assessment and LHD, respectively (**Action ACM-S/07**); and
- iv. Submit a progress report to the SAT SG meeting (**Action ACM-S/08**).

## **8. Inaugural SAT IMG session with development of work programme, implementation priorities/timelines and meeting schedules**

8.1 The SAT IMG Chairperson from Portugal presented a working paper to the meeting, which detailed the IMG responsibilities, in accordance with the SAT IMG ToRs, for the identification, planning, development and coordinated implementation of safe and efficient projects which would support/enhance the aviation system within the SAT. In order to address the different requirements of the SAT, the SAT IMG should be composed of multidisciplinary experts (including both ATM and CNS experts) which would address all issues regarding capacity, procedures and interoperability related to the EUR/SAM corridor, the AORRA (Atlantic Ocean Random Routing Area) airspace, other SAT traffic flows and the interfaces with adjacent Regions (e.g. NAT, AFI, CAR/SAM). A State Letter for the nomination of SAT IMG members should be sent out after the ACM-S meeting (**Action ACM-S/09**) so that the SAT IMG/1 meeting could be planned before the end of 2022.

8.2 Following the discussions/decisions from the previous SAT/24 and ACM meetings, a number of areas of interest and work items had already been identified for the SAT IMG, which would also be in compliance with the IMG ToRs, namely:

- a) Improve coordination and cooperation with adjacent PIRGs (Planning and Implementation Regional Groups), especially with the NAT SPG (SAT decision 23/19);
- b) Restructure the working sub-groups according to the priorities defined by the SAT SG and the Work Programme of the SAT IMG;
- c) Harmonize to the extent possible the Contingency Plans for the NAT and SAT (Recent NAT Doc 006 review pending NAT SPG approval) (First priority from ACM/01);
- d) Implement PBCS/PBM separation minima in the SAT (First priority from ACM/01);
- e) Implement Space-Based ADS-B in the SAT (First priority from ACM/01);
- f) Implement AIDC/AMHS in the SAT (Second Priority form ACM/01);
- g) Harmonize to the extent possible the NAT and SAT CONOPS (Concept of Operations) elements (Second Priority form ACM/01);
- h) Determine alternative ATM solutions for the EUR/SAM corridor to increase safety and efficiency;
- i) Optimize the Flight Level usage with improved assignment of Flight Levels (Second Priority form ACM/01);
- j) Identify required traffic statistics and analysis to enable the SAT SG to make more accurate and predictable planning decisions;
- k) Assess the AORRA (Atlantic Ocean Random Routing Area) implementation and define new potential areas of improvement;
- l) Support ANSPs in the RCP/RSP implementation;
- m) Present SATMA and ASECNA joint survey on navigation specifications of aircraft that operate in the EUR/SAM corridor (to be submitted at SAT/25, S-SAT report, July 2021); and
- n) Collect Data on traffic forecasts to support planning and implementation of programmes to address SAT challenges.

8.3 The Meeting discussed the preparation of the first meeting of the SAT IMG and supported the view that, following the nomination of SAT IMG members, there was a strong need for data collection from the ANSPs in the SAT area (e.g. in the form of a SAT IMG working paper from each State/ANSP and also from the airspace users IATA/IBAC (International Business Aviation Council)), so that the scope of the IMG work could be better defined. This data collection should include not only traffic numbers for each FIR/OCA but also planned ATM/CNS infrastructure changes and aircraft equipage percentages on specific SAT traffic flows. By giving initial importance to the identified issues, in line with the ASECNA proposal in IP02, the following data should be provided by relevant SAT ANSPs:

- i. Traffic numbers (arrivals, departures, overflights within the OCA/FIR from past months and trends for the next for the months (e.g. EUR/SAM corridor and total, also with indication of peak hours);
- ii. Data link (Automatic Dependent Surveillance-Contract (ADS-C) and CPDLC) equipage;
- iii. ADS-B equipage;
- iv. PBCS certification;
- v. RNP 4 approvals;
- vi. VHF coverage in oceanic airspace;
- vii. AIDC, AMHS, OLDI implementation status;

- viii. ATM system or CNS infrastructure changes;
- ix. Airspace or ATS route changes (e.g. ESCIT update, Free Route Airspace (FRA) implementation); and
- x. Any other subject of interest (e.g. Contingency plans and exercises, civ/mil coordination, CNS system performance monitoring) for the SAT IMG.

8.4 This data would allow the first SAT IMG meeting to discuss and agree on which issues could be addressed first and which would be dependent on implementation processes, which would require definition of priorities and timelines, as well as other coordination activities. The Meeting supported the view that the coordination and prioritization of implementation activities (implementation plan with multiple FIRs, along traffic flows, same timelines, advance publication for training and AIRACs) could increase the interoperability within the SAT area.

8.5 The Meeting supported the proposed data collection and it was proposed to invite SAT IMG members to support actively the data collection in the SAT IMG/1 invitation letter (**Action ACM-S/10**). IATA remarked that they will support the data collection exercise, but that the global equipment survey remained an ongoing effort. As an effect of the COVID pandemic, considerable fleet type changes had been introduced by airlines which needed to be reflected correctly in the data. IATA also pointed out that the financial/investment elements, in terms of CBAs from ANSPs, should be included in this exercise.

## **9. ACM-S closing with conclusions for SAT SG and involved PIRGs, AOB and planning for ACM/3 meeting**

9.1 Based on the Civil Air Navigation Services Organisation (CANSO) ATFM Data Exchange Network for the Americas (CADENA), CANSO gave a short presentation/demonstration on the CADENCE initiative, which promotes and facilitates the safe and efficient movement of air traffic through effective implementation of air traffic flow management (ATFM) and collaborative decision-making (CDM). CANSO highlighted that these processes and procedures facilitated data sharing and promoted a common situational awareness that was vital to the safe, efficient and harmonised flow of air traffic. The tool/system can be used free of charge by CANSO members and the States/ANSPs in the SAT area were invited to consider the use of this initiative for the SAT.

9.2 Cabo Verde gave a short verbal presentation on their 2020 ATM system modernisation programme, which had been stopped due to the COVID pandemic. The implementation plans for PBCS and RNP 4 had been delayed, but a new ATM Masterplan was developed during the pandemic. In accordance with this new plan, Performance-based Navigation (PBN)/Continuous Descent Operations (CDO)/Continuous Climb Operations (CCO) implementation was started in SAL FIR and an AIM/eAIP project was launched. A more detailed report can be expected at the SAT IMG/1 meeting.

9.3 SATMA indicated that they would have liked to get more information on the NAT implementation activities at this ACM-S meeting, but the Secretariat explained that the main objective of this Special Atlantic Coordination Meeting was to further support the new SAT structure and to prepare for the first round of SAT IMG and SOG meetings. In addition, this information exchange should rather take place at the next ACM/3 Meeting (which will take place in 2023 due to constraints from ICAO Headquarters). Ireland (NAT IMG Chairperson) remarked that SAT members had access to NAT Documents, meeting reports and that several NAT meetings already had observers from the SAT States joining in the discussions. The NAT IMG and NAT SOG Chairpersons invited all SAT members to contact them in the future for any kind of assistance.

9.4 The Meeting discussed options for the SAT IMG and SAT SOG meeting schedule and the possibility to have both meetings in parallel to reduce travel costs and resources. Trinidad and Tobago stated that due to travel budget constraints, it would be highly beneficial if a remote connection/hybrid component could be maintained for the upcoming SAT meetings. The Meeting suggested that the SAT IMG/1 and SAT SOG/1 meeting take place from 21 to 24 November 2022, subject to further coordination. The SAT SG/1

meeting would then be organised by the ICAO WACAF Office during the first quarter of 2023. ASECNA indicated that they would investigate if they could host the November meetings in one of its Member States, which was highly appreciated by the Meeting.

9.5 The Chairman, together with the ACM-S participants, thanked Spain for not only hosting the meeting in the framework of the 2022 World ATM Congress in Madrid, but also for their excellent support, their very nice hospitality and generosity.

9.6 The Chairman also thanked all ACM-S participants for their valuable contributions and the active discussions that would contribute to the harmonization and cross-regional coordination for the enhancement of remote/oceanic operations in the Atlantic with the involvement of all States, ANSPs and other aviation stakeholders.

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## APPENDIX A — LIST OF PARTICIPANTS

*(paragraph 0.2 refers)***BRAZIL**

Luis ANTONIO DOS SANTOS (SAT Safety Oversight Group – Chairperson) *(Remote)*

Virginia MIGNONI EVARISTO (SAT Safety Oversight Group – Assistant) *(Remote)*

Eliseu CAVALCANTI DE ALBUQUERQUE *(Remote)*  
S. BARRETO *(Remote)*

**CABO VERDE**

Alberto SILVA *(Remote)*

Micael MORENO *(Remote)*

Margarett MARQUES *(Remote)*

Paulo COSTA *(Remote)*

**CANADA**

Marie-Pier BERMAN

Jeff DAWSON

**FRANCE**

Farid ZIZI

Michel MORETTI *(Remote)*

**ICELAND**

Hlin HOLM

Arni GUDBRANDSSON

**IRELAND**

Sean PATRICK

**PORTUGAL**

Carlos ALVES

Antonio RITA

Luis TOJAIS

Nunes SIMOES *(Remote)*

**SENEGAL**

Sidy GUEYE

Badara DIOP

**SOUTH AFRICA**

James DAVIS

Jeff MACHORBA

**SPAIN**

Florencio Cano SERRANO

Andres SANCHEZ SANCHEZ

Rodolfo MONTOTO NAVARRO *(Remote)*

Eduardo J. ORTUÑO VILLAPALOS

M del Mar TABERNERO SERRANO

Joaquín Relloso PRIETO

Juan de Mata MORALES LÓPEZ

**TRINIDAD AND TOBAGO**

Alexis BRATHWAITE *(Remote)*

**UNITED STATES**

Travis FIEBELKORN

**Africa and Indian Ocean (AFI) Regional Monitoring Agency (ARMA)**

Nonjabulo GUMEDE *(Remote)*

**Caribbean (CAR) and South America (SAM) Regional Monitoring Agency (CARSAMMA)**

Ricardo Dantas ROCHA *(Remote)*

**South Atlantic (SAT) Regional Monitoring Agency (SATMA)**

Antonio ARIAS FEBLES

**Agency for Aerial Navigation Safety in Africa and Madagascar (ASECNA)**

Apollin KOMGUEM MAGNI

Fernande Jocelyne ABY épouse DJIA

Eric Armand DAMIBA *(Remote)*

Mamour DIOUF

**Civil Air Navigation Services Organisation (CANSO)**

Kevin HAGGERTY

**International Air Transport Association (IATA)**

Gorka IMIZCOZ CHOPERENA

Jeffrey MILLER

Rich STARK

**ICAO Europe and North Atlantic (EUR/NAT)**

Sven HALLE

Elkhan NAHMADOV

Abbas NIKNEJAD *(Remote)*

Leyla SULEYMANOVA *(Remote)*

Patricia CUFF *(Remote)*

**ICAO Eastern and Southern Africa (ESAF)**

Keziah OGUTU *(Remote)*

**ICAO South America (SAM)**

Fernando HERMOZA

**ICAO Western and Central Africa (WACAF)**

Prosper ZO'O MINTO'O

**APPENDIX B — LIST OF DOCUMENTATION***(paragraph 1.1 refers)*

| <b>WP / IP / PR #</b> | <b>Title</b>                                                                                                                              | <b>Presented by</b> |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| WP01<br>Rev2          | Draft Agenda (with timing)                                                                                                                | ICAO Secretariat    |
| WP02                  | ACM/2 Report - Conclusions                                                                                                                | ICAO Secretariat    |
| WP03                  | SATMA (EUR/SAM) Report                                                                                                                    | SATMA               |
| WP04                  | Status of PBCS Monitoring Dakar ACC                                                                                                       | ASECNA              |
| WP05                  | Status of AIDC Implementation Dakar ACC                                                                                                   | ASECNA              |
| WP06                  | SAT-SOG work plan update and database creation proposal                                                                                   | SAT SOG             |
| WP07                  | SAT-IMG work plan update                                                                                                                  | SAT IMG             |
| WP08                  | 2021 Vertical Collision Risk (CRM) in Atlantico FIR                                                                                       | CARSAMMA            |
| WP09                  | Africa Indian Ocean Regional Monitoring Agency (ARMA) Report                                                                              | ARMA                |
| IP01<br>Rev2          | Meeting documentation                                                                                                                     | ICAO Secretariat    |
| IP02                  | Implementation of ADS/B and activities on going for Advanced Surveillance Enhanced Procedural Separations (ASEPS)                         | ASECNA              |
| IP03                  | Volcanic Ash Activities                                                                                                                   | ICAO Secretariat    |
| IP04                  | ICAO Update                                                                                                                               | ICAO Secretariat    |
| PR01                  | ICAO Priorities for the 41st Session of the Assembly and the Next Triennium                                                               | ICAO Secretariat    |
| Demo 01               | Presentation of the DIADEME (Digital Airspace Design And performance Modelling Environment) tool from the French Aviation Civile Services | France              |
| Demo 02               | Presentation of the CANSO ATFM Data Exchange Network for Cooperative Excellence (CADENCE)                                                 | CANSO               |

## APPENDIX C — ACM-S FOLLOW UP ACTION LIST

| ID #     | ACTION                                                                                                                                                                                        | REMARKS               | WHO                                           | WHEN                   |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------|------------------------|
| ACM-S-01 | States in the SAT area to submit their occurrence reports, including Large Height Deviation (LHD) reports, as well as the monthly data returns to the respective regional monitoring agencies | ACM-S SoD, Para. 2.1. | All                                           | With immediate effect  |
| ACM-S-02 | Develop and present a detailed AIDC implementation activity plan and associated implementation status/updates to the SAT IMG/1 meeting                                                        | ACM-S SoD, Para. 2.3. | All                                           | SAT IMG/1              |
| ACM-S-03 | Review the coordinated PBCS monitoring process for all FIRs in the SAT and discuss this with the RMAs and RMACG                                                                               | ACM-S SoD, Para. 3.2. | All                                           | SAT IMG/1              |
| ACM-S-04 | Prepare an action item table from the S-SAT SoD Appendix D, with updated information on implementation status                                                                                 | ACM-S SoD, Para. 5.1. | Secretariat<br>SAT IMG chair<br>SAT SOG chair | SAT IMG/1<br>SAT SOG/1 |
| ACM-S-05 | Proceed with ToRs implementation in close coordination with RMAs, States, ANSPs, airspace users and stakeholders                                                                              | ACM-S SoD, Para. 7.7. | SAT SOG                                       | SAT SOG/1              |
| ACM-S-06 | Submit the survey on data collection to the three RMAs, analyze the results obtained, and define the feasibility to implement a common repository of safety occurrences                       | ACM-S SoD, Para. 7.7. | SAT SOG                                       | SAT SOG/1              |
| ACM-S-07 | Address the pending items of Conclusions SAT 24/06 and SAT 24/07, regarding traffic statistics and reduction in collision risk assessment and LHD, respectively                               | ACM-S SoD, Para. 7.7. | SAT SOG                                       | SAT SOG/2              |
| ACM-S-08 | Submit a progress report to the SAT SG meeting                                                                                                                                                | ACM-S SoD, Para. 7.7. | SAT SOG                                       | SAT SOG/1              |
| ACM-S-09 | State Letter for the nomination of SAT-IMG members                                                                                                                                            | ACM-S SoD, Para. 8.1. | Secretariat<br>SAT IMG chair                  | August 2022            |
| ACM-S-10 | Collect data/information from the SAT ANSPs and airspace users in preparation of SAT IMG/1                                                                                                    | ACM-S SoD, Para. 8.5  | Secretariat<br>All SAT IMG members            | SAT IMG/1              |

**APPENDIX D — SURVEY ON REGIONAL MONITORING AGENCIES DATA COLLECTION**

*(paragraph 7.5a) refers)*

The South Atlantic Safety Oversight Group (SAT-SOG) is responsible for the monitoring of safety management of air traffic services provision in the SAT area and for encouraging the adoption of best practices. To initiate its work plan, we are starting a survey with the Regional Monitoring Agencies which are involved in the SAT airspace.

Therefore, SAT SOG invites your agency to respond to this survey. You would be providing us with information that will help us to collect data to improve safety in the South Atlantic Monitoring Area, as well as helping us get to know your RMA.

If you want to speak to us directly, you can contact the SAT SOG team via the e-mail presented in this form.

**Identification**

1. RMA's identification:

2. Please, inform a point of contact e-mail:

**RMA principal functions:**

**Does your agency monitor the level of risk as a consequence of operational errors and in-flight contingencies by:**

3. establishing and maintaining a mechanism for collation and analysis of all operational errors, including vertical deviations of 90m (300ft) or more, lateral deviations, and longitudinal losses of separations?

Yes  
 No

4. determining and analysing, wherever possible, the root cause of each deviation together with its magnitude and duration?

Yes  
 No

5. calculating the frequency of occurrences?

Yes  
 No

6. assessing the overall risk (technical and operational) in the system against the overall safety objective (see Doc 9574 - Manual on Implementation of a 300 m (1000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive)?

Yes  
 No

7. initiating follow-up actions with State aviation authorities as required?

Yes  
 No

8. Does your RMA act as the custodian of all aircraft technical height-keeping performance data collected as part of its Regional monitoring process?

Yes  
 No

9. If your agency does what was asked in the previous question, please inform the report frequency and its format:

10. Does your RMA act as the custodian of all aircraft technical height-keeping performance data collected as part of its Regional monitoring process?

Yes  
 No

**Does your RMA report height deviations of aircraft observed to be non-compliant, based on the following criteria:**

- i. TVE  $\geq$  90m (300 ft);**
- ii. ASE  $\geq$  75 m (245 ft);**
- iii. AAD  $\geq$  90 m (300 ft);**

**and take the necessary action with the relevant State and operator to determine:**

11. the likely cause of the height deviation?

Yes  
 No

12. the approval status of the relevant operator?

- Yes  
 No

13. and recommend, wherever possible, remedial action?

- Yes  
 No

14. Does your RMA analyse ASE data to detect height deviation trends and, hence, investigate aircraft height-keeping performance?

- Yes  
 No

15. Does your RMA provide its customers and State aviation authorities with height monitoring data on request?

- Yes  
 No

16. Does your RMA liaise with other Regional Monitoring Agencies to exchange monitoring and RVSM approvals data amongst the regions?

- Yes  
 No

17. What are the channels adopted by your RMA to exchange monitoring and RVSM approvals data amongst the regions?

18. Does your RMA ensure that the requisite height monitoring is completed by aircraft operators listed in the RVSM approvals database and take appropriate action where necessary?

- Yes  
 No

19. Does your RMA establish and maintain a database of aircraft approved by the respective State authorities for operations within RVSM airspaces in that region?

Yes  
 No

20. What platform is used to operate this database? What is the database update frequency?

21. Does your RMA conduct checks of the approval status of aircraft operating in the relevant RVSM airspace, identify non-approved operators and aircraft using RVSM airspace, and notify the appropriate State of Registry/State of the Operator accordingly?

Yes  
 No

22. Can you describe how checks of the approval status of aircraft operating in the relevant RVSM airspace are performed?

23. Describe how your RMA notifies the appropriate State of Registry/State of the Operator when a non-approved operator and aircraft are using the RVSM airspace?

24. Does your RMA receive and maintain a database of RCP and RSP approvals issued by the associated States of Registry/the Operator?

Yes  
 No

25. Does you RMA receive reports of non-compliance according to Doc 9869 (Performance-Based Communication and Surveillance - PBCS) with RSP 180 and RCP 240 from your region's ANSP and transmit reports to the respective RMA associated with the State of the respective operator/aircraft?

- Yes
- No

— END —