



ICAO

**Twenty-Second Meeting of the AFI Planning and Implementation Regional Group  
(APIRG/22)  
(Accra, Ghana, 29 July – 2 August 2019)**

**Agenda Item 2.2: Update on Air Traffic Management & Search and Rescue Matters**

***Provision of Regional Performance Based Communication and Surveillance (PBCS) in the AFI Region***

*(Presented by the ARMA)*

<b>EXECUTIVE SUMMARY</b>	
<p>This paper highlights specific conclusions stemming from the South Atlantic FANS Implementation Team (SATFIT 23) Meeting held in Durban, Johannesburg from 4 – 8 June 2018 as well as the report of the Second Meeting of the APIRG Airspace and Aerodrome Operations Sub-Group (AAO SG/2), held in Nairobi, Kenya, from 21 to 25 May 2018, relating to PBCS Implementation within the AFI Region</p> <p>APIRG adopted specific Projects to facilitate PBCS implementation.</p> <p><b>Action by the meeting is at paragraph 3</b></p> <p>Doc 9869(PBCS) ICAO Doc 10063 (Manual on monitoring the application of performance based horizontal separation minima)</p>	
<i>Strategic Objectives</i>	<p><b>A</b> – Safety, <b>B</b> – Air Navigation Capacity and Efficiency, <b>D</b> – Economic Development of Air Transport, and <b>E</b> – Environmental Protection.</p>

**1. INTRODUCTION**

1.1. Performance Based Communications and Surveillance (PBCS) within the AFI Region in accordance with APIRG 21 Conclusion 21/09: PBCS Planning, Implementation and Monitoring, requires the establishment of a regional PBCS monitoring programme.

1.2. This programme is required to conduct performance monitoring of the communication and surveillance in terms of globally accepted Required Communication Performance (RCP)/ Required Surveillance Performance (RSP) specifications in order to reduce separation standards and increase efficiencies.

## 2. DISCUSSION

2.1. In accordance with the PBCS manual, the Air Navigation Service Provider (ANSP) should perform an analysis of actual communication performance (ACP) and actual surveillance performance (ASP) at an interval suitable to verify system performance, and to enable continuous performance improvement.

2.2. Such continuous improvement is expected as the result of detecting where specific infrastructure, aircraft-operator fleet, aircraft type, or individual aircraft is not meeting the defined RCP/RSP specifications.

2.3. The ANSP should report to the Regional PBCS monitoring programme any problems, including non-compliance with RCP/RSP specifications, that may have a regional or global impact or that may affect aircraft operators in its airspace.

2.4. Various discussions had taken place at different ICAO meetings to discuss the developments in the implementation of Performance Based Communication and Surveillance (PBCS), noting other discussions within the framework of APIRG as well, which date back to APIRG/17 in 2010.

2.5. Regional air navigation implementation bodies including PIRGs had taken or were in the process of formalizing the assignment to RVSM Regional Monitoring Agencies (RMAs), the functions and responsibilities of PBCS monitoring (JASMA, MAAR, NAARMO, NAT CMA, and PARMO have completed update of their ToRs).

2.6. The SATFIT 23 meeting held in Durban, South Africa, from 4 to 8 June 2018 drafted the following conclusion with regards to PBCS:

**CONCLUSION SAT/FIT/13/02:        Increase the coordination of datalink monitoring between RMAs**

**That, based on the SAT FIT discussions, SAT States are invited to support the PIRGs activities in updating the RMA ToRs accordingly for PBCS monitoring (ARMA-SATMA), and enhance the coordination/collaboration between the involved RMAs, especially ARMA, CARSAMMA, DLMA and SATMA.**

2.7. The AAO SG/2 meeting held in Nairobi, Kenya, from 21 to 25 May 2018 agreed on the need to expedite the establishment of the AFI PBCS monitoring mechanism, noting the approach adopted in other ICAO Regions to take advantage of the already existing RVSM monitoring organizations for various reasons, including operational and institutional.

2.8. The AAO considered the conclusions from the SATFIT in developing the following Draft Conclusion:

**Draft Conclusion 2/14: Establishment of the AFI Performance-Based Communication and Surveillance (PBCS) Monitoring:**

That in order to implement regional PBCS monitoring for the AFI Region in support of the provisions of Annex 11 to the Chicago Convention, specifically Standards 2.8, 2.9, 3.3.5.2 and mindful of the PBCS monitoring models in other ICAO Regions:

- a) The AFI PBCS monitoring should be established as part of the AFI RMA monitoring mechanism;
- b) ICAO to formally request South Africa, as matter of urgency, to facilitate the inclusion of PBCS monitoring in the functions and responsibilities of the AFI Regional Monitoring Agency (ARMA) and provide necessary expertise for both functional areas (RVSM and PBCS), as well associated support to States and service providers as applicable;
- c) South Africa be mandated to formulate cost recovery mechanism in accordance with ICAO policies and in coordination with users and AFI ANSPs as necessary, and provide an update to AFI States and ANSPs through the Secretariat and the APIRG framework;
- d) The Secretariat to provide assistance and support as necessary to facilitate early establishment of the AFI PBCS monitoring mechanism; and
- e) The proposed terms of reference of the ARMA relating to PBCS monitoring at Appendix 3E to this report be reviewed and updated as necessary.

**(Note: This Draft Conclusion is to supersede APIRG Conclusion 20/24)**

2.9. It was recognized that when the conclusion 2/14 was drafted, the information necessary to support regional PBCS monitoring programs was not accessible to States, ANSPs and monitoring agencies.

2.10. Should APIRG adopt the conclusions as listed above, the following expanded functions and responsibilities would need to be established for the RMA as part of the PBCS monitoring programme:

- a) Receiving reports of non-compliance with RSP 180 and RCP 240 from ANSPs associated with RMAs' current airspace responsibility and transmitting these reports to the respective State or appropriate RMA;
- b) Receiving and maintaining RCP and RSP approvals issued by States of Operator/Registry and incorporating into the expanded RVSM/PBCS approvals database;
- c) Verifying compliance with State PBCS requirements (applicable to RMAs with designated areas of responsibility that include airspace where PBCS is implemented); and
- d) Sharing RCP/RSP approvals between RMAs in line with current sharing practices of RVSM approvals to facilitate the ability of States/ANSP to verify that aircraft operators filing PBCS- related capabilities in the flight plan are authorized to do so.

2.11. It is to be noted that the PBCS Monitoring functions for RMAs will be similar to the RVSM.

2.12. The monitoring program process will require all entities to participate for the whole monitoring program to be a success. All State has responsibilities and is accountable as per ICAO Doc 9869.

### **3. ACTIONS BY THE MEETING**

3.1. The meeting is invited to:

- a) Note the information contained within the working paper;
- b) Support the AAO SG/2 draft conclusions 2/14, as listed in this paper;
- c) Urge States to utilize the framework for PBCS implementation as defined in ICAO doc 9869 for the establishment of National policies for PBCS and issue PBCS related approvals;
- d) Endorse and mandate ARMA with PBCS monitoring role as per paragraph 2.8 and PBCS Terms of Reference WP; and
- e) Formally request South Africa, in a letter, as matter of urgency, to facilitate the inclusion of PBCS monitoring in the functions and responsibilities of the AFI Regional Monitoring Agency (ARMA) and provide necessary expertise for both functional areas (RVSM and PBCS), as well as associated support to States and service providers as applicable.