



ICAO

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**WESTERN AND CENTRAL AFRICA OFFICE**

**Twenty-Fourth Meeting on the Improvement of Air Traffic Services over the South Atlantic (SAT/24)**

**Luanda, Angola, 5-7 June 2019**

---

---

**Agenda Item 5: National and Regional PBCS Monitoring**

**5.3 AFI REGION PBCS MONITORING IMPLEMENTATION STATUS**

*(Presented by the ARMA.)*

<b>SUMMARY</b>
<p>This Information paper briefly discusses the proposed Performance Based Communication and Surveillance Monitoring, PBCS, intended to be managed by the ARMA after the appropriate mandates have been obtained, implemented and training has taken place. The tasks and responsibilities of State Authorities, Air Navigation Service Providers, Aircraft Operators and the ARMA are being addressed within AFI.</p> <p>Action by the meeting is at paragraph 3</p> <p><b>REFERENCE(S):</b> Performance Based Communication and Surveillance (PBCS) Manual (Doc 9869) Draft Report ICAO APIRG AAO SG 2 Nairobi 21 – 25 May 2018 Conclusions ICAO RMACG 13 Brazil 11 -14 June 2018</p> <p><b>Related ICAO Strategic Objective(s): A, B &amp; E</b></p>

**1. INTRODUCTION**

1.1 Performance Based Communication and Surveillance (PBCS) is a requirement to ensure that the various forms of communications between aircraft and ATSU's are within the required specifications to safely establish and maintain separation standards within and outside of AFI.

1.2 Globally and historically Regional Monitoring Agencies (RMAs) have been mandated by their respective PIRGS to conduct RVSM system monitoring. RMA's have now been requested to take on the PBCS monitoring function as well after being mandated by the respective PIRG's.

## **2. DISCUSSION:**

2.1 RMA's were reminded of the approaching PBCS implementation due to take place Globally on 29 March 2018. Unfortunately, ARMA has to date not been mandated to commence with the process. Together with this, State Authorities and Air Navigation Service Providers, have not been fully enlightened to the pending requirement, processes and responsibilities.

2.2 At the most recent ICAO APIRG SG 2 meeting held in Nairobi 21 – 25 May 2018 the planning, mandates and implementation was addressed. The draft conclusion and draft ARMA ToR were compiled during proceedings.

monthly RVSM approvals check to incorporate a similar check against PBCS Approvals where these have been included in the flight plan but no approvals record is held by the ARMA.

2.5 The ARMA will share records of RCP and RSP approvals between RMAs in line with current sharing practices of RVSM approvals. This will enable the identification of approved aircraft and non-approved aircraft as crossed checked from the database and flight plans.

2.6 Discussions are underway to establish the exact process and the timelines for AFI ANSPs to send reports of PBCS non-compliance to the ARMA. Periodically reports are already being received however no mandate has been provided by the PIRG to commence.

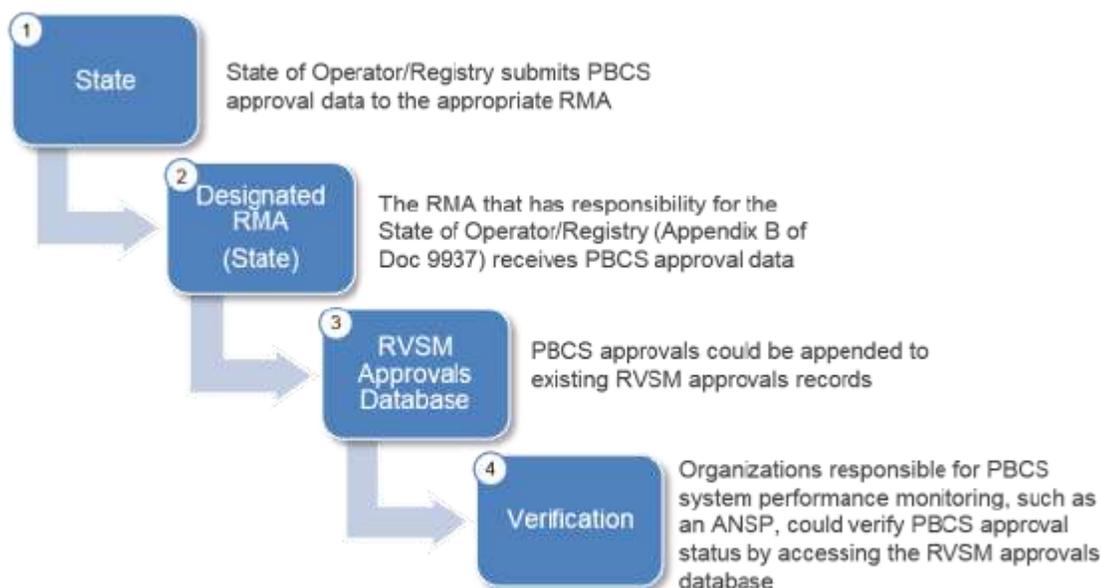
2.7 At the thirteen global RMA's discussed implementation of centralized mechanisms involving all RMAs which took place at the RMACG 14 meeting over time period 17-21 June 2019 in Spain. The outcome was communicated back to the APIRG structures.

2.8 The Terms of Reference have been compiled with reference to those already compiled by RMA's actively managing PBCS. The ToR read as follows:

- Receive reports of non-compliance (Doc 9869 refers) with RSP180 and RCP240 from AFI ANSPs and transmitting reports to the respective RMA associated with the State of the respective operator/aircraft;
- Receive and maintain records of RCP and RSP approvals issued by States of Operator/Registry associated with current State responsibility and incorporating into expanded RVSM/PBCS approvals database and follow-up as appropriate instances of non-approved aircraft being identified in PBCS airspace. This would be determined by augmenting the existing monthly RVSM approvals check to incorporate a similar check against PBCS Approvals where these have been included in the flight plan but no approvals record is held by RMAs;

- Sharing records of RCP and RSP approvals between RMAs in line with current sharing practices of RVSM approvals for the ability of States/ANSPs to verify that aircraft operators filing PBCS capabilities in the flight plan are authorized to do so.
- 

**Flow charts that show the State/ANSP/RMA relationships.**



*Figure 2. NAT PBCS IS PT Proposed method of submitting and receiving PBCS approvals data*

**The Verification step 4 has not been agreed and has not been discussed for a long time as it is not something we are sure we could do. The rest of the diagram remains unchanged.**

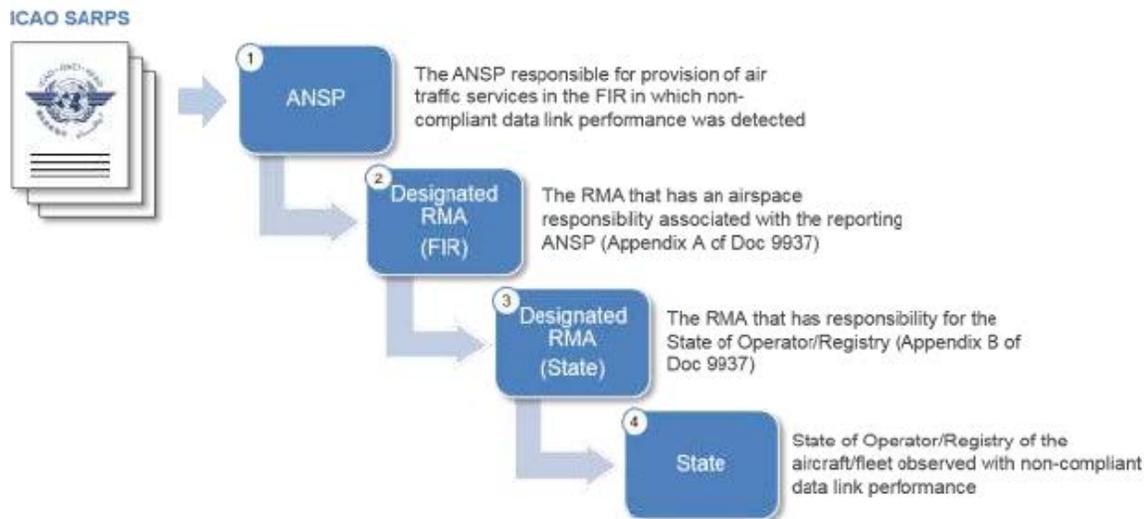


Figure 3. Communication flow for reports of non-compliance with PBCS performance requirements

2.9 The ARMA should be receiving an indication of a mandate to commence or not to commence with PBCS officially from the next APIRG meeting during the last quarter of 2019.

2.10 It is fact that the AFI region is behind with the PBCS process and time lines together with plans will be required so as not to penalize operators operating in other ICAO regions. The latter was brought to the attention of the ICAO APIRG AAO SG 2 and RMACG13 meeting.

2.11 When it comes to motivation ARMA has been proactive in formatting a State Letter for the region to request for approvals from our States before any ICAO letter is published. AFI RMA has been following the NAT Region with their PBCS Implementation and Monitoring process, The NAT region advised that 7 months after implementation States were still not able to produce PBCS approvals, I would like to highlight that setting up the process to transmit PBCS/RCP/RSP approvals is expected to be slow in the AFI regions so we urge our region to begin this process now.

2.12 Non-compliance reports that we would expect to receive from an ANSP.

### **Pre-Implementation preps for AFI Region**

TASK ID	TASK DESCRIPTOR	COMPLETE BY	LEAD
<b>GENERAL PROJECT DEVELOPMENT &amp; MANAGEMENT</b>			
1	Plan	AFI RMA	AFI RMA
2	Target dates	PIRG	PIRG
3	RCP/RSP specifications	PIRG	PIRG
4	AFI PBCS Workshop(s)	2019-2023	ICAO/ States
<b>DOCUMENTATION</b>			
5	Operational concepts	PIRG	ATNS ATM & ARMA, States
6	GOLD amendments	PIRG	GOLD ad-hoc group
7	Contingency procedures		ATNS ATM/cns
8	Restoration of service	APIRG	PIRG
9	Flight plan requirements	a) ATNS and GOLD b) amend Doc 4444	ICAO
10	PfA for NAT Regional Supplementary Procedures (AFI SUPPS)	ATNS ATM/cns	States
11	AIPs and other State documents supporting AFI SUPPS	Consistent with Task 10	States
14	GOLD proposal for RCP/RSP compliance determination	ANSPs	CNSG
15	GOLD proposal for guidelines on operator eligibility	ANSPs and CAA	OPS/AIR
<b>IMPLEMENTATION ACTIVITIES</b>			
12	ATC automation changes	Before the start of operational trials of RLongSM or RLatSM.	AFI ANSPs
13	Confirm actual CPDLC and ADS C performance	Prior to operational implementation	ANSPs, Operators, IATA and ARMA
<b>AIRWORTHINESS AND OPERATIONAL ELIGIBILITY</b>			
16	State regulations and guidance material	Available from ICAO and other RMA's	SOG, States, ANSPs, Users
<b>POST IMPLEMENTATION TASKS</b>			
17	Post-implementation monitoring		ANSPs, ARMA

### 3. ACTION BY THE MEETING:

#### 3.1. The meeting is invited to:

- Take note of the contents of the information paper.
- PIRG structures to issue the mandate of PBCS Monitoring for the AFI Region.
- States to start pre-implementation as RCP/RSP specifications have been defined to establish PBCS policies for ANSP, Operators and Airworthiness. Publish the PBCS requirements in Aeronautical Information Publication.
- ANSP to create mechanisms to recognize RCP/RSP Capabilities in ATC automation, provide RCP/RSP compliant air traffic services.
- Operators to prepare to file RCP/RSP capabilities in flight plans and participation in PBCS Monitoring programs.

-END-