

**54<sup>th</sup> CONFERENCE OF  
DIRECTORS GENERAL OF CIVIL AVIATION  
ASIA AND PACIFIC REGIONS**

*Ulaanbaatar; Mongolia  
07 – 11 August 2017*

AGENDA ITEM 3: AVIATION SAFETY AND  
AIR NAVIGATION

**IMPLEMENTATION OF PERFORMANCE BASED  
COMMUNICATION AND SURVEILLANCE (PBCS) IN  
ASIA PACIFIC**

(Presented by the International Air Transport Association)

**SUMMARY**

This paper is presented to the Conference at the request of ICAO FIT-ASIA/6. It raises issues and concerns regarding the implementation of PBCS (globally and in APAC) that require resolution prior to the agreed regional implementation date, currently *no later than 29 March 2018*.

## IMPLEMENTATION OF PERFORMANCE BASED COMMUNICATION AND SURVEILLANCE (PBCS) IN ASIA PACIFIC

### 1. INTRODUCTION

1.1 PBCS is an ICAO initiative to provide performance requirements to ensure robust infrastructure and safe operations. The initial focus is on implementation of Performance Based Communications and Surveillance for airspace (**remote and Oceanic**) that utilizes Controller-Pilot Data Link Communications (CPDLC) to provide separation services.

1.2 It is very important for this conference to note that aircraft which will operate into PBCS airspace (for example North Pacific or North Atlantic) areas must have the Operational Approval from their regulator to do so. **This means that many States who do not manage PBCS airspace must still have approval and monitoring processes in place to ensure their State registered aircraft are not adversely impacted.**

1.3 Noting the applicability date of ICAO Standards and Recommended Procedures (SARPS) and procedures for PBCS was November 2016, the Asia Pacific Region has agreed, in coordination with the North Atlantic (NAT) Region, to implement PBCS *not later than 29 March 2018*. This implementation was supported by APANPIRG/27 conclusions 7 through 9:

- Conclusion 7 “PBCS Operator Requirements” urges States to ensure policies procedures are established and promulgated to enable airlines to operate in airspace where PBCS has been implemented
- Conclusion 8 “State Implementation of ICAO provisions for PBCS” urges States that plan to apply separations using PBCS ensure capabilities to process the ICAO FPL indicators and have a common implementation date.
- Conclusion 9 “Asia Pacific Region PBCS Transition Strategy” endorses the regions transition strategy (which includes the target date of *not later than 29 March 2018*)

1.4 IATA and airlines are very supportive of the introduction of PBCS where required, however, this paper raises issues and concerns with the upcoming implementation given we are now only 7 months from the target *not later than* date for APAC.

1.5 Airlines are concerned that if the issues identified are not addressed prior to implementation certain operations may be penalized in circumstances that are beyond an airline’s control. We seek the Directors’ General support to address these issues, where applicable, in their respective States.

1.6 The issues raised in this paper were identified last year during ICAO forums and resulted in an ICAO Regional Survey being distributed to attempt to gather information on planning and actions taken by States in order to develop a clear regional picture and progress report. Unfortunately only 4 States responded to the survey. This survey has now been redistributed to again attempt to gain a clear picture of regional progress – it is hoped there will be a better response from States to ICAO this time.

### 2. DISCUSSION

#### Concerns/Issues with PBCS Implementation for Consideration

2.1 IATA accepted an action from the ICAO FIT-ASIA/6 meeting to raise at DGCA/54 the 6 main concerns/issues as PBCS implementation nears.

**1 Lack of State readiness to issue operational approval for PBCS:**

This issue was raised during the regional Operational Datalink workshop on PBCS in conjunction with FITASIA/5 in May 2016. IATA remains concerned that the regulatory understanding and therefore the establishment of approval processes and procedures remains an impediment to PBCS operations and implementation. Whilst acknowledging regulators may be taking action only some States have promulgated AIC information and none (to our knowledge) have yet established formal approval processes for PBCS operations. **It must be emphasized that States who do not actually manage airspace where PBCS is implemented must still have approval processes in place for aircraft on their registry that will operate into PBCS airspace.**

**2 Lack of RCP / RSP Statement of Compliance (SOC) for legacy aircraft:**

Boeing and Airbus have indicated that while newer aircraft will receive a SOC for RSP/RCP in their Aircraft Flight Manuals (AFMs), legacy aircraft will not. Therefore B747, B757, B767 and traditional FANS-1/A equipped Airbus A320 / 330 / 340 will not receive an Original Equipment Manufacturer (OEM) SOC update to their AFM

ICAO Operational Data Link Working Group (OPDLWG) have agreed to continue exploring an alternative approach to requiring an AFM SOC. IATA is supporting this effort but a solution has yet to be identified.

**3 An alternative to the requirement for commercial contracts between operators and Communication Service Providers (CSPs):**

The current ICAO PBCS Manual (Doc 9869) provides guidance for operators to have oversight responsibility concerning CSP performance through commercial bilateral contract or service level agreements between operators as a condition for obtaining PBCS operational approval. CSPs (ARINC and SITA) have stated that they are not willing to guarantee performance through individual contracts as communication performance depends on various factors and stakeholders. A shared industry view is that having such contracts will not solve the issue of network performance and may unintentionally result in additional legal implications and costs.

To resolve this issue it has been proposed that States and ICAO accept the use of a non-binding, multi-stakeholder charter in lieu of bilateral commercial contracts. The principle of the charter has been accepted by the FAA Flight Standards Division; the OPDLWG is progressing the inclusion of the charter concept into the ICAO PBCS manual.

**4 Role of EMA/RMA Monitoring Agencies regarding PBCS:**

ICAO PBCS concept relies on Actual Communications Performance (ACP) and Actual Surveillance Performance (ASP) monitoring and problem reporting both at ANSP and regional levels.

The recent RMSCG meeting discussed the issues around the RMAs taking on the extra responsibility for PBCS monitoring and identified a number of issues to be resolved. Agreement for all EMA/RMAs to monitor PBCS is yet to be achieved.

**5 Lack of a global standardized requirement for PBCS data collection and monitoring:**

Details such as data type, quantity and analysis method, have not been globally standardized and are currently expected to be varied among States.

The ICAO OPDLWG and FIT-ASIA have agreed to improve ICAO guidance on data compilation and filtering. IATA HQ will support this activity, particularly as related to data collection criteria.

#### **6 Readiness for ANSPs to process, transfer and use PBCS flight plan codes:**

ICAO Doc 4444 – *Procedures for Air Navigation Services – Air Traffic Management* (PANS-ATM) requires airspace users to file specific flight plan codes (“P codes”) to demonstrate RCP / RSP operational approval. There is some concern that all ANSPs may not be able to accept, process and transfer FPLs with the ‘P’ codes.

2.2 On a specific regional basis there are also a number of items that need to be considered for PBCS implementation:

- Revision of Regional Supplementary Procedures (Doc 7030);
- Readiness of State Regulators to conduct PBCS safety oversight of ANSPs; and
- Availability of baseline statistics on Actual Communication Performance (ACP) / Actual Surveillance Performance (ASP).

### **3. CONCLUSION**

3.1 The time required to ensure the above issues are addressed will influence the intended implementation date of not later than 29<sup>th</sup> March 2018. Additionally, experience shows that a reasonable time period is required to ensure airline fleet approvals are processed and in place.

3.2 To ensure operations are not unfairly impacted by the introduction of PBCS it is important to ensure Regional and Global readiness for this implementation.

3.3 It is of note that the ICAO FIT-Asia 6 meeting decided that another meeting was required in 2017 (FIT ASIA 7) to assess regional progress in addressing outstanding issues.

3.4 The Conference is requested to ensure their authorities are aware of and have processes in place to meet the requirements; where applicable; for PBCS operations.

### **4. ACTION BY THE CONFERENCE**

4.1 The Conference is invited to note the information contained in this Paper and:

- a) Ensure their State responds to the ICAO APAC survey on PBCS (if they have not already done so);
- b) Ensure they have an operational approval process for aircraft on their registry that will operate in PBCS airspace areas; and
- c) Ensure the other issues identified in this paper, if applicable, are addressed and processes are in place to meet the requirements of PBCS operations.