



International Civil Aviation Organization
ICAO **Twenty-Eighth Meeting of the Regional Airspace Safety
Monitoring Advisory Group (RASMAG/28)**

Bangkok, Thailand, 21 – 24 August 2023

Agenda Item 5: Airspace Safety Monitoring Activities/Requirements in the Asia/Pacific Region

REGULATORY PROCESS OF PBCS OPERATIONAL APPROVALS

(Presented by ICAO)

SUMMARY

This paper presents summary of regulatory processes for PBCS Operational approval applied by several Asia Pacific States, and proposes a survey.

1. INTRODUCTION

1.1 This paper refers to RASMAG task list Action item 26/1...*Noting that there were cases where some States were using a process other than direct operational approvals to enable aircraft operators to file PBCS indicators in flight plans, ICAO undertook to study how information on such State regulatory processes could be obtained.*

2. DISCUSSION

2.1 Operational ‘authorization’ or ‘approval’ for flight operations separated by performance-based separation minima that are dependent upon Performance-Based Communications and Surveillance (PBCS) is achieved by Aircraft Operators and States complying with the Required Communications Performance (RCP) and Required Surveillance Performance (RSP) provisions of Annex 6. While nothing precludes a State from doing so, Annex 6 does not specifically state a requirement for the issuance of specific operational approval for PBCS. This is different from, say, Reduced Vertical Separation Minimum (RVSM), or Performance-Based Navigation (PBN) - Authorization Required (AR), which do require specific operational approval.

2.2 An approval process does, however, apply to aircraft and aircraft operator documentation. Annex 6 requires that information relevant to the aeroplane RCP and RSP specification capabilities shall be listed in the flight manual or other aeroplane documentation approved by the State of Design or State of Registry. In addition to the continued application of current arrangements for the approval of the flight manual or other aeroplane documentation which must include RCP and RSP specification capabilities, in the case of international commercial air transport the State of the operator shall conform with the provisions of Annex 6 Volume I sections 7.1.4, 7.1.5, 7.3.3 and 7.3.4 (**Figure 1**). Additional guidance for States can be found in ICAO DOC 9869 *PBCS Manual* Chapter 4 – *Complying with an RCP/RSP specification*.

7.1.4 The State of the Operator shall, for operations where an RCP specification for PBC has been prescribed, ensure that the operator has established and documented:

- a) normal and abnormal procedures, including contingency procedures;
- b) flight crew qualification and proficiency requirements, in accordance with appropriate RCP specifications;
- c) a training programme for relevant personnel consistent with the intended operations; and
- d) appropriate maintenance procedures to ensure continued airworthiness, in accordance with appropriate RCP specifications.

7.1.5 The State of the Operator shall ensure that, in respect of those aeroplanes mentioned in 7.1.3, adequate provisions exist for:

- a) receiving the reports of observed communication performance issued by monitoring programmes established in accordance with Annex 11, Chapter 3, 3.3.5.2; and
- b) taking immediate corrective action for individual aircraft, aircraft types or operators, identified in such reports as not complying with the RCP specification(s).

7.3.3 The State of the Operator shall, for operations where an RSP specification for PBS has been prescribed, ensure that the operator has established and documented:

- a) normal and abnormal procedures, including contingency procedures;
- b) flight crew qualification and proficiency requirements, in accordance with appropriate RSP specifications;
- c) a training programme for relevant personnel consistent with the intended operations; and
- d) appropriate maintenance procedures to ensure continued airworthiness, in accordance with appropriate RSP specifications.

7.3.4 The State of the Operator shall ensure that, in respect of those aeroplanes mentioned in 7.3.2, adequate provisions exist for:

- a) receiving the reports of observed surveillance performance issued by monitoring programmes established in accordance with Annex 11, Chapter 3, 3.3.5.2; and
- b) taking immediate corrective action for individual aircraft, aircraft types or operators, identified in such reports as not complying with the RSP specification(s).

Figure 1 – Extract Annex 6, Vol I

2.3 In **RASMAG/27 WP/29**, MAAR confirmed that all 21 States under MAAR's responsibility already adopted the new F2 Form and identified RSP180/RCP240 Approval on the form. In addition, the Federal Aviation Administration (FAA) and the Japan Civil Aviation Bureau (JCAB) have a plan to implement 23NM lateral separation minima and new ATS routes, requiring RNP4 and PBCS, for aircraft flying in the North Pacific Ocean airspace. Therefore the examination of the regulatory process for PBCS approvals namely Required Communication Performance (RCP) 240 and Required Surveillance Performance (RSP) 180) would be important to ensure continued safe operations of reduce horizontal separation minima.

Preliminary comparison of APAC States

2.4 **Table 1** lists the administration that have direct operational approvals. Some of the data was deduced from submitted approvals data of individual airframes, and some administrations have confirmed the use of direct operational approvals. The table only represent a small number APAC administrations and it is still unclear where other process of approvals are employed.

Administrations	Type of approval
Brunei Darussalam	Direct operational approvals
China (Taiwan)	Direct operational approvals
China (Hong Kong)	Direct operational approvals
India	Direct operational approvals
Japan	Direct operational approvals
Pakistan	Direct operational approvals
Philippines	Direct operational approvals
Singapore	Direct operational approvals
Thailand	Direct operational approvals
USA	Direct operational approvals
Vietnam	Direct operational approvals

Table 1: Preliminary comparison of APAC States

2.5 Therefore a survey is proposed to seek information from States to better understanding by RASMAG and FIT-Asia of the PBCS approval process of APAC member states to ensure the PBCS approvals issued are in accordance with Annex 6 and PBCS manual Doc 9869 chapter 4.

- a) Does your State have air operators with PBCS Approvals?
- b) Does your State issue an operational approvals for PBCS directly for your air operators so that they can file PBCS indicators in their flight plans?
- c) If not, please list and describe other method

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) review and provides inputs to the proposed survey questions;
- c) agree to draft Conclusion below; and
- d) discuss any relevant matters as appropriate.

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Draft Conclusion RASMAG/28-X: Survey for Asia Pacific States PBCS Approval Process	
<p>What: That, ICAO conducts a survey seeking information to better understanding by RASMAG and FIT-Asia of the PBCS approval process of APAC member states to ensure the PBCS approvals issued are in accordance with Annex 6 and PBCS manual Doc 9869 chapter 4.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Ops/Technical</p>
<p>Why: Only some APAC States have indicated to have direct Operational Approval Process for PBCS and it is unclear what other process are employed.</p>	<p>Follow-up: <input checked="" type="checkbox"/> Required from States</p>
<p>When: 8-Sep-23</p>	<p>Status: Draft to be adopted by Subgroup</p>
<p>Who: <input type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX</p>	