



International Civil Aviation Organization

ICAO

Twelfth Meeting of the FANS Interoperability Team – Asia
(FIT-Asia/12)

Video Teleconference, 25 – 28 July 2022

Agenda Item 3: PBCS Developments and Implementation

REVIEW OF ANNUAL PBCS SURVEY OF THE IMPLEMENTATION OF PERFORMANCE-BASED HORIZONTAL SEPARATION MINIMA

(Presented by ICAO)

SUMMARY

This paper presents the review of the annual PBCS survey of the implementation Status of Performance-based Horizontal Separation minima.

1. INTRODUCTION

1.1 The annual PBCS survey was introduced in 2016 following the fifth meeting of the FANS Interoperability Team – Asia (FIT-Asia/5), when ICAO disseminated a state letter (Ref T3/ 10.1.16 - AP064/ 16 (ATM)). The State letter highlighted the most significant issues requiring priority attention by States that provided performance-based separations using CPDLC and ADS-C, a draft APAC regional PBCS transition strategy and a survey of the current and planned implementation of performance-based horizontal separation minima.

1.2 Completion and submission of the completed PBCS survey report form is supported by a number of formal Conclusions¹ agreed by the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG), and its technical sub-group to which FIT-Asia reports – the Regional Airspace Safety Monitoring Advisory Group (RASMAG).

2. DISCUSSION

2.1 Since its introduction, the survey form has remained unchanged. There are items in section 4 of the survey form (shown in **Figure 1**) that does not reflect the current separation standards in the PANS ATM (Doc 4444) Table 5-2 – Lateral separation of aircraft on parallel or non-intersecting tracks or ATS routes. There are also items in the PBCS implementation chart, which accompanies the ICAO's Regional PBCS Implementation Update paper (shown in **Figure 2**), that are not relevant to PBCS implementation.

¹ Conclusions APANPIRG/27-7, RASMAG/22-3, APANPIRG/28-11, RASMAG/23-1.

4. Has your State implemented or planned to implement the following performance-based horizontal separation minima?					
Navigation Specifications & Applicable ATM Operations	RNAV/RNP	RNAV/RNP 10	50 NM Lateral Separation		
			50 NM Longitudinal Separation		
		RNP 4	30 NM Longitudinal Separation		
			30 NM Lateral Separation		
			23 NM Lateral Separation		
		RNP2	30NM Climb-Descend Through		

Figure 1 – Current Section 4 of the annual PBCS survey form

Does your State submit data link problem reports to a recognized Central Reporting Agency (CRA)								X	
Communication Specifications & Interoperability Standards	Normal	RCP240	FANS1/A CPDLC					X	
	Alternate	RCP400	SATVOICE						
		RCP400	HF						
Surveillance Specifications & Interoperability Standards	Normal	RSP180	FANS1/A ADS-C					X	
	Alternate	RSP400	SATVOICE						
		RSP400	HF						
ADS-B									
Navigation Specifications & Applicable ATM Operations	RNAV/RNP	RNAV/RNP 10/RNP 4	50 NM Lateral Separation					X	
			50 NM Longitudinal Separation					X	
		RNP 4/RNP 2	30 NM Longitudinal Separation						
			30 NM Lateral Separation (pre-existing std)						
	RNP2	23 NM Lateral Separation (new std)							
		30NM Climb-Descend Through							
		20NM Lateral Climb-Descend Through						NOT YET SURVEYED	
		07 - 15 NM VHF Lateral Separation						NOT YET SURVEYED	
			8NM VHF Climb-Descend Through					NOT YET SURVEYED	
	10 MINUTE Longitudinal Separation without MNT.								
RVSM									
ADS-C CDP									
ADS-B ITP									
Tactical Lateral Offsets for Climb or Descent									
Tailored Arrival									
CDO									
UPR									
Other ATM Operations	DARP	Accept							
		Initiate							

Figure 2 – PBCS implementation chart attachment to the Regional PBCS Implementation Update working paper

2.2 Furthermore, the meeting is invited to noted that the Global Operational Data Link - GOLD manual (Doc 10037) and the Performance-Based Communication and Surveillance - PBCS manual (Doc 9869) are scheduled to be revised by Dec 2022 and 2023/2024 respectively.

2.3 Therefore, it is proposed for the meeting to incorporate the appropriate lateral separation standards where PBCS is applicable from PANS ATM (Doc 4444), to update any pertinent changes from the upcoming revisions to the PBCS manual (Doc 9869) and GOLD Manual (Doc 10037) and to remove irrelevant information from the annual PBCS survey form and the PBCS implementation chart.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information in this paper;
- b) review and update the annual PBCS survey form and PBCS implementation chart; and
- c) discuss any relevant matters as appropriate.

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