



International Civil Aviation Organization

ICAO

**Sixteenth Meeting of the FANS Interoperability Team – Asia
(FIT–Asia/16)**

Bangkok, Thailand, 9 – 11 June 2026

Agenda Item 5: Data Link Developments and Guidance Material

UPDATE ON THE PBCS MANUAL (DOC 9869 THIRD EDITION) FROM OPDLWG/12

(Presented by Japan and Singapore)

SUMMARY

This paper presents the outcome of discussions at OPDLWG/12 regarding the development of the third edition of the ICAO Doc 9869 PBCS Manual. It outlines the background of the update, its endorsement status within the ICAO process, and key differences from the second edition, including new specifications, enhanced monitoring and compliance frameworks, and expected publication.

1. INTRODUCTION

1.1 The PBCS Manual (Doc 9869) provides guidance to support the uniform application of SARPs and PANS for performance-based communication and surveillance (PBCS) in ATM operations.

1.2 The second edition, published in 2017, established the global PBCS framework and supported performance-based separation using RCP 240 and RSP 180, while the third edition has been developed under the OPDLWG to address evolving operational needs, new technologies and lessons learned from implementation.

1.3 At OPDLWG/12, the draft third edition was reviewed, considered sufficiently mature to proceed toward publication following the resolution of comments and completion of inter-panel coordination, and agreed to be forwarded for further processing toward endorsement by the ICAO Air Navigation Commission (ANC).

2. DISCUSSION

Key Differences in Structure and Scope

2.1 The third edition retains the overall structure of the second edition but significantly expands the scope of guidance, including implementation, compliance, monitoring and operational authorization, with expanded appendices providing practical guidance such as training, implementation checklists and RCP/RSP application, thereby transitioning the manual toward a more implementation-oriented document.

Introduction of New RCP and RSP Specifications

2.2 The third edition introduces new specifications, notably RCP 130 and RSP 160, which support more demanding and time-critical ATM operations. These new specifications were developed in response to evolving operational needs and experience gained from PBCS implementation and are formalized in the manual as RCP and RSP specifications.

Enhancement of Monitoring and Performance Framework

2.3 The third edition establishes detailed monitoring, reporting and data analysis frameworks, including standardized data elements, statistical processing methods and regional and global aggregation mechanisms, and introduces more formalized processes for identifying performance deficiencies and implementing corrective actions, thereby strengthening safety oversight.

Updated Treatment of CPDLC Responses in Performance Monitoring

2.4 The third edition revises the CPDLC data set used for performance monitoring, expanding it from only transactions with a DM 0 WILCO response in the second edition to include transactions with UNABLE and STANDBY responses, treating STANDBY as closing the message, and reflecting practices where data sets may include responses such as WILCO, UNABLE, AFFIRMATIVE, NEGATIVE, ROGER and STANDBY.

Note.— The following excerpts are taken from the draft third edition of the PBCS Manual:

2.1.1.4 The CPDLC data set is comprised of controller-initiated transactions. The transactions in which an uplink receives DM 0 WILCO, DM 1 UNABLE, or DM 2 STANDBY are considered. For transactions with a STANDBY response, the STANDBY is considered to close the message for the purpose of monitoring.

3.1.2.1 CPDLC data sent to a regional monitoring agency to support the regional PBCS monitoring programme should, at a minimum, include all uplinks that require an operational response of WILCO/UNABLE, AFFIRMATIVE/NEGATIVE, ROGER, or STANDBY. Additional data may be required based on regional agreements.

Strengthened Safety Requirements and Compliance

2.5 The third edition introduces enhanced safety requirements and more detailed allocation of responsibilities across system components, including aircraft systems, ATSP systems and communication service providers, while improving guidance on operational authorization, compliance verification and performance assurance based on lessons learned from PBCS implementation.

Alignment with Related ICAO Work and Future Concepts

2.6 The third edition aligns with ongoing ICAO work, including developments in surveillance performance, ensuring consistency across related frameworks. The manual is also expected to support future data link environments, including emerging applications such as ATN Baseline 2 and advanced satellite communications.

Status and Expected Publication

2.7 At OPDLWG/12, all comments identified for review were resolved or deferred to future editions, and the draft third edition (version 1.8) was considered mature for publication, with the meeting emphasizing the need to expedite publication and agreeing that inter-panel coordination and Secretariat review proceed in parallel to accelerate the process, with publication expected as soon as practicable following completion of ICAO processes including ANC endorsement.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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