



ICAO

International Civil Aviation Organization

**SEVENTH MEETING OF THE ASIA/PACIFIC AIR
TRAFFIC MANAGEMENT AUTOMATION SYSTEM
TASK FORCE (ATMAS TF/7)**

Bangkok, Thailand 2-4 June 2026

Agenda Item 2: Review of Outcomes of Relevant Meetings

UPDATE ON THE SURVEILLANCE PERFORMANCE REQUIREMENTS MANUAL AND ITS RELEVANCE TO ATM AUTOMATION SYSTEMS (ATMAS)

(Presented by Thailand and Singapore)

SUMMARY

As participating members of the Surveillance Panel, this paper shares the update and the future developments of the Surveillance Performance Requirements Manual (formerly known as RSUR manual).

1. INTRODUCTION

1.1 The Asia and Pacific (APAC) Air Traffic Management Automation System (ATMAS) Implementation and Operations Guidance Document (IGD) Edition 1.5 explicitly includes Required Surveillance Performance (RSUR) Manual specifications for the different supported applications in paragraph 4.5.3 and Appendix C, as the performance criteria for surveillance data processing functions. The RSUR Manual drafted by the Surveillance Panel (SP), provides specific technical performance benchmarks that the ATMAS' surveillance functions should achieve to support safe aircraft separation.

1.2 Following the recent revision of the RSUR Manual, this paper reviews the update and the future developments of the manual.

2. DISCUSSION

The update of RSUR Manual

2.1 Following the sixth meeting of the Surveillance Panel (SP/6), held from 4–13 March 2026, the RSUR Manual was revised and retitled as **the Surveillance Performance Requirements Manual** due to concerns of its naming being confused with the Performance-Based Communication and Surveillance (PBCS) concepts. The document will now proceed through the formal processes of the ICAO, including coordination with relevant panels to address and resolve any outstanding issues, assignment of an official document number, and preparation for publication. The overall timeline remains subject to ICAO procedures, and no definitive publication date has been established.

Scope of the Surveillance Performance Requirements Manual

2.2 The scope of the current Surveillance Performance Requirements Manual is limited to cooperative surveillance systems; non-cooperative systems like primary surveillance radar (PSR) are

not considered necessary for defined separation applications. Current specifications in the document are defined for:

- 3 NM aircraft separation in Terminal Manoeuvring Area (TMA)
- 5 NM aircraft separation for en-route
- 2.5 NM aircraft separation on final approach to the same runway

2.3 The Surveillance Performance Requirements Manual also includes the necessary information to support the use of Automatic Dependent Surveillance – Broadcast (ADS-B) and Multilateration techniques for separation services, replacing earlier information provided in Circular 326.

The subsequent phase of the Surveillance Performance Requirements Manual

2.4 The Performance-Based Surveillance Sub-Group (PBSSG), which is charged with developing the Surveillance Performance Requirements Manual, will continue to work on the performance specification for two more separation applications:

- 3 NM aircraft separation for en-route
- 5 NM aircraft separation in TMA

The importance of the Surveillance Performance Requirements Manual to ATMAS

2.5 The Surveillance Performance Requirements Manual serves as a key ICAO reference document to assist States when specifying the technical performance requirements for Air Traffic Services (ATS) surveillance systems in a consistent and measurable manner, based on the applications they intend to support. It introduces a performance-based surveillance framework that establishes technology independent requirements, thereby allowing flexibility in the use of various surveillance technologies to meet operational needs.

2.6 In this context, the manual also functions as a foundational document for ATMAS, providing the technical benchmarks and operational framework necessary to support safe aircraft separation. By adopting a technology independent performance-based surveillance concept, it enables automation systems to integrate diverse surveillance data sources, provided that defined Quality of Service metrics such as data update intervals (DAT_{UI}) and horizontal position error (HPE), as measured at the controller's display, are satisfied. Furthermore, its three-tier classification system (A, B, and C) allows States to scale system performance in accordance with local airspace complexity. The standards outlined in the manual support the full ATMAS lifecycle, including system procurement, acceptance testing, ongoing performance monitoring, and interoperability.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper, particularly the recent revision and adoption of the RSUR Manual as the Surveillance Performance Requirements Manual by the Surveillance Panel;

b) note that the Surveillance Performance Requirements Manual has not yet been formally published by ICAO, and that its content remains subject to the completion of ICAO formal processes, including inter-panel coordination, assignment of an official document number, and final publication; and

c) discuss any relevant matter as appropriate.
