



ICAO

International Civil Aviation Organization

**ELEVENTH MEETING OF THE SURVEILLANCE
IMPLEMENTATION COORDINATION GROUP
(SURICG/11)**

Bangkok, Thailand, 25 - 27 March 2026

Agenda Item 8 Update on surveillance activities and explore potential cooperation opportunity

b) Updates from ICAO Surveillance Panel, Standards Making Organization

ICAO SURVEILLANCE PANEL ACTIVITIES

(Presented by ICAO Surveillance Panel Co-Chair)

SUMMARY

This paper describes recent and planned activities of the ICAO Surveillance Panel.

1. INTRODUCTION

1.1 The work programme and activities of the ICAO Surveillance Panel (SP) are relevant to the SURICG. Per its charter from the Air Navigation Commission (ANC), the SP consists of two Working Groups: the Aeronautical Surveillance Working Group (SP-ASWG) and the Airborne Surveillance Working Group (SP-AIRBWG).

1.2 Information and discussions from the most recent SP Working Group meetings may be useful for consideration by the SURICG.

2. DISCUSSION

2.1 In response to ICAO job card SP.008.04 “Ensure performance of surveillance systems”, task 5 “Develop measurable technical performance specifications for surveillance systems and update information on ADS-B versions 1 and 2 as well as WAM definitions included in Cir 326”, the SP created a Performance-Based Surveillance Sub-Group (PBSSG). The PBSSG is charged to develop new guidance material containing performance-based surveillance requirements, including updated materials which would replace ICAO Cir 326, which is now outdated. In November 2021, the PBSSG provided an initial draft RSUR Manual to the membership of the SP for comments and feedback. In September 2023, at the Fifth Meeting of the SP, a major revision of this draft Manual was provided to SP membership for review and comment.

2.2 The PBSSG continued to work to finalize the draft Manual. A discussion was held at the recent SP-ASWG held in Montreal from 9 – 12 March 2026 where the Surveillance Performance Requirements Manual (formerly known as RSUR) was presented and agreed to. Subsequently, this manual was presented and adopted as part of the Sixth Meeting of the SP held on 13 March 2026.

2.3 The document will now undergo ICAO processes to address and resolve (if necessary) any issues with other panels, be assigned a document number, and proceed to publication.

2.4 Since the last SURICG meeting, each of the Surveillance Panel’s Working Groups have held two meetings.

2.5 The Twentieth Meeting of the Airborne Surveillance Working Group (AIRBWG) and the Twenty-second Meeting of the Aeronautical Surveillance Working Group (ASWG) were held as consecutive hybrid meetings in Nairobi, Kenya. AIRBWG/20 was held from 12 to 14 November 2025; ASWG/22 was held from 17 to 21 November 2025. The meetings were attended by 37 participants (17 members, 22 advisors, and 3 participants from the ICAO Secretariat) from 11 ICAO States (4 from the APAC region) and four International Organizations (including ICAO).

2.6 The Twenty-first Meeting of the Airborne Surveillance Working Group (AIRBWG) and the Twenty-third Meeting of the Aeronautical Surveillance Working Group (ASWG) were held as consecutive meetings in Montreal at ICAO Headquarters. AIRBWG/21 was held from 4 to 6 March 2026; ASWG/23 was held from 9 to 13 March 2026. The meetings were attended by 45 participants (19 members, 26 advisors, and 2 participants from the ICAO Secretariat) from 15 ICAO States (6 from the APAC region) and four International Organizations (including ICAO).

2.7 As referenced in Section 2.2, the 6th Meeting of the Surveillance Panel was held from 4 to 13 March 2026 in Montreal, Canada. During this meeting Mr. Stuart McKay was elected as Chairperson of the Surveillance Panel and Mr. Alejandro “Alex” Rodriguez was elected as Vice-chair of the Surveillance Panel).

2.8 The meeting brought forward the final revisions to several change proposals and proposed amendments to ICAO Standards and Recommended Practices (SARPs) to further clarify or complement what was previously approved under the 5th Meeting of the Surveillance Panel.

2.9 As part of the meeting, the SP adopted changes to:

- [a] Doc 8071 – Manual on Testing of Radio Navigation Aids Volume III – Testing of Surveillance Radar Systems.
- [b] Doc 9830 – Advanced Surface Movement Guidance and Control System (A-SMGCS) Manual.
- [c] Doc 9863 – Airborne Collision Avoidance System (ACAS) Manual
- [d] Doc 9871 – Technical Provisions for Mode S Services and Extended Squitter
- [e] Doc 9924 – Aeronautical Surveillance Manual
- [f] Doc 9994 – Manual on Airborne Surveillance Applications

2.10 The following changes were proposed for amendments to Annex 10 Vol IV technical provisions:

- [a] Addition of top-level functional and performance requirements for ATS surveillance systems linking them to the Surveillance Performance Requirements Manual.
- [b] Replacing reference to Doc 9924 with Doc 8071 related to ADS-B/MLAT flight test and local monitoring guidance.
- [c] Introduction of new requirement into Annex 10 Vol. IV mandating that Mode S and Mode A/C ground interrogators automatically inhibit RF transmissions when their antenna no longer rotates or scans at its expected nominal rate.
- [d] Removal of the lower limit of the interrogation pulse rise and decay time.
- [e] Removal of LDPC as an option for Phase Overlay forward error correction.
- [f] Improved description of ACAS and RA broadcast messages.
- [g] Clearer explanations of the ACAS surveillance interrogation protocol.
- [h] Corrections to the Reply Information (RI) field to avoid misidentifying ACAS-equipped aircraft.

2.11 The following change proposals were adopted for Doc 9924:

- [a] Addition of a requirement to request ground interrogators to inhibit transmission when no longer rotating at nominal rate.
- [b] Removal of LDPC as option for Phase Overlay Forward Error Correction.
- [c] Revision material into Appendix M Interference Considerations.
- [d] Additional material to support updates to the Minimum Operating Performance Standards.
- [e] Transfer of flight test guidance from Doc 9924 to Doc 8071.

2.12 The following change proposals were adopted for Doc 9830:

- [a] Clarify surveillance as defined service within A-SMGCS and introducing the concept of coverage volume.
- [b] Introduce modernized guidance on surveillance performance and target characterization.
- [c] Introduce updated surveillance performance requirements aligning Doc 9830 with contemporary surveillance performance assessment practices.
- [d] Update description for the life-cycle costs for air traffic control systems.
- [e] Refine acronyms to reflect technologies rather than operational concepts.
- [f] Replace outdated research-only material with structured descriptions of Surface Movement Awareness Systems.

2.13 The following change proposals were adopted for Doc 9863:

- [a] Explanatory material related to ACAS III capabilities, including the ability to generate horizontal and blended resolution advisories, differences in surveillance sources, coordination mechanisms, and alert presentation.
- [b] Ensure that existing descriptions of ACAS systems are compatible with both ACAS II and ACAS III.
- [c] Enhanced clarifications, removal of obsolete materials, and updated references to ICAO documentation.
- [d] Resolution of inter-panel coordination comments.

2.14 The following change proposals were adopted for Doc 8071 Volume III:

- [a] Consolidation of flight testing guidance.
- [b] Resolution of inspection guidance inconsistencies.
- [c] Alignment with Annex 10 Volume IV amendments.
- [d] Addressing ground-based and satellite-based surveillance systems, refine remote field monitor capabilities, and applying editorial harmonization across the document.

2.15 The following change proposals were adopted for Doc 9994:

- [a] Information and description of runway collision alerting functionality.
- [b] Inclusion of phraseology language for interval management.

2.16 The SP Working Groups discussed and agreed with the future meeting schedule listed in the table below.

MEETING	DATE	VENUE	REMARKS
3rd QTR 2026 (Working Group Meetings)			
AIRBWG/22	16-18 September 2026	ICAO Montréal Canada	
ASWG/24	21-25 September 2026	CR 6 (AIRBWG) CR 5 (ASWG)	
1st QTR 2027 (Working Group Meetings)			
AIRB WG/23	13-16 April 2027	ICAO Montréal Canada	
ASWG/25	19-23 April 2027	CR 6 (AIRBWG) CR 5 (ASWG)	
3rd QTR 2027 (Working Group Meetings)			
AIRBWG/24	7-10 September 2027	ICAO Montréal Canada	
ASWG/26	13-17 September 2027	CR 6 (AIRBWG) CR 5 (ASWG)	

MEETING	DATE	VENUE	REMARKS
1st QTR 2028- The Seventh Meeting of the Surveillance Panel (SP/7)			
SP/7	Wednesday, 8 March to Friday, 17 March 2028	ICAO Montréal Canada CR5 (AIRB WG) CR6 (ASWG)	
Members-only meeting	8-Mar-28		
First Plenary	8-Mar-28		
AIRBWG /25	8-10 March 2028		
Second Plenary	10-Mar-28		
ASWG/27	13-17 March 2028		
Last Plenary	17-Mar-28		
3rd QTR 2028 (Working Group Meetings)			
AIRBWG/26	6-8 September 2028	ICAO Montréal Canada CR 7A (25 ppl) and CR 7B (25 ppl).	
ASWG/28	11-15 September 2028		

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 matter as appropriate
