



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

UPDATE ON SURVEILLANCE STATUS IN CHINA

(Presented by China)

SUMMARY

This paper updates the current status of surveillance sensors in China as of the end of 2025. It is an update of the papers previously submitted.

1. INTRODUCTION

1.1 This paper updates the status of surveillance sensors as of the end of 2025 in China, as well as the construction of sensors in 2025.

2. DISCUSSION

Surveillance Status

2.1 Surveillance Radars: Currently, there are 30 primary and secondary combined radars, 119 standalone secondary radars, and 14 movables secondary radars in service. Among all secondary radars, 125 radars are operating in Mode S according to the operational needs of their locations. In 2025, 1 standalone secondary radars were out of service, and 3 standalone secondary radars were re-constructed in their same locations.

2.2 ADS-B: As of now, there are 349 ADS-B ground stations, 36 Level-3 data stations, 8 Level-2 data centers, and 1 Level-1 data center in service. They together form the national ADS-B operational network. In 2025, China built 2 new ground stations, most of them were in the Xinjiang region, to enhance coverage in mountainous areas.

2.3 SMR: China currently has 56 SMRs in service. All of them are X-band radars. These SMRs served 27 busy large airports in 24 cities. In 2025, 4 new SMRs were built and put into operation, serving the airports in Nanning, Guangzhou, and Urumqi.

2.4 MLAT: China currently has 25 operational MLAT systems at 24 large and busy airports in 22 cities. In 2025, China built and put into operation 1 MLAT system at Nanning Airport, providing surface surveillance service.

2.5 WAM: China currently has 4 WAM systems, which are deployed in Beijing, Wuhan, Guangzhou, and Chongqing.

Surveillance Implementation

2.6 The Guangzhou WAM System is deployed with remote stations at the airport and surrounding areas to enable real-time reception and processing of signals from aerial targets in the approach airspace, meeting surveillance requirements such as target positioning and tracking. Construction of the system began in 2025. It comprises 9 remote sites and 1 central processing system, including 5 receiving stations and 4 receiving and transmitting combined stations. The system primarily covers the approach area of Guangzhou Baiyun International Airport, extending approximately 50 kilometres north-south and 20 kilometres east-west, centred on the control tower, with enhanced coverage within the 30-kilometre north-south segment. Vertical coverage ranges from ground level up to approximately 1,000 metres. In early 2026, the system successfully completed its flight inspection, and all parameters were verified to comply with industry standards. The system is scheduled to become fully operational in 2027.

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.
