



ICAO

International Civil Aviation Organization

**Tenth Meeting of the Surveillance Implementation
Coordination Group (SURICG/10)**

Bangkok, Thailand, 21 - 23 April 2025

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

SURVEILLANCE ACTIVITIES IN MALDIVES

(Presented by Maldives)

SUMMARY

This paper provides updated information on Surveillance activities in the Maldives.

1. INTRODUCTION

1.1 This paper summarizes the status of the current Surveillance infrastructure in the Maldives.

2. DISCUSSION

RADAR

2.1 A new Mode-S Secondary Surveillance Radar (SSR) was commissioned in 2020. This system provides a surveillance coverage up to 230 NM, effectively covering most of the Maldives Flight Information Region (FIR) at FL290. The radar installation includes an integrated ADS-B receiver and is interfaced with the Air Traffic Management (ATM) System, enhancing the overall situational awareness and surveillance capabilities within the FIR.

2.2 During the initial years of operation, several technical issues were identified. These were addressed and resolved by the supplier in close coordination with the engineering team, ensuring the sustained reliability and optimal performance of the radar system.

ADS-B

2.3 Since 2012, three (3) ADS-B ground stations (located at Velana International Airport (VIA) and the northernmost and southern points of the Maldives) have provided surveillance coverage for approximately 90% of the Male' FIR above FL290.

2.4 In 2024, five (5) new ground receiving stations were installed as part of an ongoing enhancement of the ADS-B surveillance network. These augment the existing ADS-B infrastructure

and significantly improve low-level coverage, particularly in areas with high volumes of seaplane operations.

2.5 The newly installed stations extend coverage at lower altitudes, thereby supporting enhanced surveillance of VFR operations, especially in seaplane corridors. Integration of the new ADS-B stations into the ATM system is underway and is expected to be completed by Q3 2025.

2.6 The carriage of ADS-B Out equipment is not yet mandatory in the Maldives FIR. ADS-B-based surveillance services are provided on a capability basis. SSR continues to serve as the primary source of surveillance within a 230 NM radius of VIA.

2.7 IFR aircraft intending to use ADS-B services within the Male' FIR must be certified in accordance with EASA AMC 20-24 or comply with Australia's Civil Aviation Authority (CASA) Civil Aviation Order 20.18.

2.8 Most VFR aircraft, specifically seaplanes (e.g., DHC-6 Twin Otters on floats) operating commercial services between VIA and resort islands, are already equipped with ADS-B Out capabilities. The new aircraft additions to the seaplane fleet are required to be ADS-B Out equipped.

SDP

2.8 The existing Surveillance Data Processor (SDP), in operation since 2008, has become increasingly difficult to maintain due to the discontinuation of support for its COTS hardware. The reliance on third-party suppliers for replacement parts has raised concerns over maintenance reliability and system availability.

2.9 In light of this, a decision was made in 2023 to upgrade and extend the operational life of the current ATM system until the implementation of a new system planned for 2027. The Flight Data Processor (FDP) component was successfully upgraded in 2024, and the SDP upgrade is currently in progress, with completion targeted for Q4 2025.

2.10 A consultancy process is currently underway to define the scope and requirements for the new ATM system, aimed for 2027. A consultant will be selected shortly from among the firms that have submitted expressions of interest. The development of the new ATM system will be guided by the outcomes and recommendations of this consultancy.

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
