

**61ST CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGION**

*Kuala Lumpur, Malaysia
7 – 11 September 2026*

AGENDA ITEM 4: AIR NAVIGATION

**RAISING AIRLINES' AWARENESS OF SWIM, FF-ICE AND
TBO**

Presented by the International Air Transport Association (IATA)

INFORMATION PAPER

SUMMARY

This paper presents an update on current and planned activities by IATA to raise awareness in all levels of member airlines in the fields of SWIM, FF-ICE and TBO, including recent TBO webinars conducted by IATA ASPAC.

RAISING AIRLINES' AWARENESS OF SWIM, FF-ICE AND TBO

1. INTRODUCTION

1.1 The modern CNS/ATM concepts of SWIM, FF-ICE and TBO are advancing rapidly in their development. Global and regional implementation dates for new concepts and capabilities, and sunsetting of legacy procedures is now a reality. Executing a well-planned roadmap for implementation will require thorough understanding from all stakeholders.

1.2 To date, the majority of development in SWIM, FF-ICE and TBO has been led by States and their ANSPs, while airlines have prioritised shorter term operations, particularly during the global COVID crisis where airline survivability became the ultimate priority.

1.3 IATA is working to raise awareness and preparedness in all levels of airlines by coordinating connections between airlines and their ANSPs and also through development of training material as part of the Pathfinder TBO project.

2. DISCUSSION

2.1 The Pathfinder group has agreed to a series of activities and deliverables related to raising the awareness of TBO and its enablers of FF-ICE, Connected Aircraft and SWIM in airline Executive, operational and technical levels. These steps will take place over the next three years (2026-2028).

2.2 A primary initiative recently conducted was a series of regional webinars with APAC Airspace Users (AUs) to align regional AU efforts for facilitating the understanding of global TBO concept and its building blocks, including the need for interoperability and harmonization, and envisaged benefits.

2.3 IATA corresponded via ASPAC and NASIA Regional Vice Presidents to ASPAC and NASIA member airline CEOs to encourage AU participation in the webinar and other activities for SWIM, FF-ICE and TBO such as technical interchange meetings, table-top exercises and laboratory demonstrations.

2.4 This aims to provide airline expertise and insights to ensure that the operational scenarios developed are practical and operationally viable. The goal is to have airlines become SWIM capable so that they can participate as eAUs in future SWIM, FF-ICE and TBO events.

2.5 Three webinars were conducted: Two 2-hour webinars for airline operational and technical SMEs, including technical/management and pilots, and one 45-minute webinar with high-level content and feedback from the Tech/Ops webinars for executive-level attendees.

2.6 The two-hour webinars took the form of:

- TBO definition and the need for TBO
- Day-to-day TBO ops and the evolution from legacy ATM
- Key enablers:
 - SWIM
 - FF-ICE
 - Connected aircraft
- Benefits of TBO
- Open discussion on airline challenges based on live online feedback

➤ APAC roadmap and timeline

2.7 Feedback from airlines during and after the webinars is being used to update the Pathfinder TBO education material published in 2025.

2.8 IATA has also been working to establish closer working connections between airlines and their ‘home’ ANSPs. Aligning implementation roadmaps will lead to better testing and trials and smoother transitions and minimise the inconvenience of mixed modes during the transition periods. IATA encourages all ANSPs that don’t yet have strong points-of-contact with their home-based airlines for SWIM and other concepts to liaise with IATA to establish those connections.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this Paper.

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