60th CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGIONS

Sendai, Japan
28 July - 1 August 2025

AGENDA ITEM 10: OTHER BUSINESS

B): HOSTING OFFER AND THEME TOPIC FOR THE FORTHCOMING CONFERENCE(S) OF APAC DGCA

PROPOSAL ON THE THEME TOPIC FOR THE 61ST CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGIONS

(Presented by Malaysia)

SUMMARY

Under this theme, the conference will explore how air transportation can drives the development of Asia-Pacific's aviation sector by leveraging artificial intelligence to enhance safety through predictive risk analysis, optimize operations for greater efficiency and accelerate sustainability through emission-reducing technologies - all while promoting equitable access to innovation across developing and developed nations in alignment with ICAO's GASP and 2050 net-zero targets, ensuring the region's aviation growth remains both competitive and sustainable.

PROPOSAL ON THE THEME TOPIC FOR THE 61st DGCA CONFERENCE

1. INTRODUCTION

1.1 The 61st Conference of the Directors General of Civil Aviation of the Asia and Pacific Regions (61st DGCA Conference) will be held in Kuala Lumpur, Malaysia in 2026. The specific dates will be determined following consultation with ICAO Asia-Pacific office. This discussion paper proposes for discussion at the 61st Conference a Theme Topic "Smart Skies: AI for Safe, Secure, Sustainable and Efficient Aviation".

1.2 This theme supports ICAO's strategic goals by enhancing safety through AI-powered risk prevention (aligned with GASP), advancing sustainability via emission-reducing technologies (supporting the 2050 net-zero target) and fostering innovation through collaborative AI solutions that uphold the Delhi Declaration's principles of inclusive development.

2. DISCUSSION

2.1 AI for Aviation Safety: AI enhances aviation safety by analyzing real-time flight data and weather patterns to detect potential risks like engine failures or severe weather, providing early warnings to pilots and air traffic controllers, enabling proactive measures that prevent accidents before they occur. AI predicts aviation risks in real-time, supporting ICAO's Global Aviation Safety Plan (GASP) objectives, transforming reactive protocols into proactive, data-driven safety management that enhances compliance with Annex 19 standards while preserving human decision-making authority."

2.2 AI-Driven Operational Efficiency: Airlines and airports can use AI to streamline operations, reducing delays and costs. For example, AI optimizes flight routes in real-time to avoid congestion, predicts maintenance needs to keep aircraft in top condition, and automates baggage handling to minimize errors. These improvements mean smoother journeys for passengers and lower expenses for airlines.

2.3 AI-Powered Sustainability: Aviation must reduce its environmental impact, and AI is a powerful tool for cutting emissions. It helps airlines monitor fuel use, plan cleaner flight paths and integrate sustainable aviation fuels (SAF) more effectively. AI also supports airports in managing energy use, waste and noise pollution, contributing to greener aviation.

2.4 AI enhances Aviation Security (AVSEC) and Streamlines Facilitation (FAL): AI strengthens aviation security (AVSEC) and improves passenger facilitation (FAL) by using machine learning to detect threats in passenger and cargo data, automating identity verification and document checks at borders to reduce wait times and applying predictive analytics to optimize airport staffing and security resource deployment as well as enhancing both safety and efficiency across air travel systems.

2.5 AI drives Economic Development: AI serves as a catalyst for economic development in aviation by expanding regional connectivity through intelligent route optimization, creating high-value employment opportunities through specialized AI roles in aviation data analysis and technology development; and attracting substantial investments in next-generation infrastructure like smart airports and digital air traffic systems. These combined effects drive inclusive development that strengthens airlines, airports, communities, and travelers across the aviation ecosystem.

2.6 Collaborative and Inclusive Innovation: The benefits of AI should be shared across all regions, including developing nations. The conference will explore how governments, airlines and tech companies can work together to ensure fair access to AI tools, training and funding. This way, every country can participate in and benefit from the future of aviation.

2.7 A Unified Vision for the Future: By combining AI with safety protocols, operational upgrades and sustainability efforts, the aviation industry can achieve a smarter, more resilient future. This theme invites stakeholders to collaborate on practical solutions that make air travel safer, more efficient, and environmentally friendly for generations to come.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

a) discuss and adopt the proposed Theme Topic for the 61st DGCA Conference of Asia and Pacific Regions; and

b) give emphasis accordingly to the matters coming under the theme topic in formulating discussion and information papers.

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