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

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AGENDA ITEM 3: AVIATION SAFETY

STRENGTHENING STATE SAFETY PROGRAMME (SSP) FOR SUSTAINABLE AVIATION GROWTH IN THE ASIA-PACIFIC

(Presented by Malaysia)

SUMMARY

This Paper highlights the critical role of the State Safety Programme (SSP) in supporting sustainable aviation growth in the Asia-Pacific region. It emphasizes how mature SSP implementation enhances aviation safety, environmental responsibility, and economic sustainability. The paper outlines CAAM's key experiences, challenges, and proposed areas for regional collaboration, focusing on digital innovation, data-driven oversight, risk-based resource allocation, and integration of sustainability goals within SSP frameworks.

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1. INTRODUCTION

- 1.1 The Asia Pacific region is experiencing dynamic growth in air traffic and aviation services. While this momentum drives economic development and strengthens regional connectivity, it also presents increasing complexity in aviation safety oversight. In response, ICAO's Global Aviation Safety Plan (GASP) calls upon Member States to implement a structured SSP as a cornerstone of proactive and performance-based safety oversight.
- 1.2 In line with these expectations, Malaysia, through CAAM, has steadily progressed in implementing its SSP. These efforts reflect a national commitment to aligning with ICAO standards while enhancing regulatory effectiveness through risk-based oversight, stakeholder collaboration, and a culture of continuous improvement. CAAM also acknowledges the importance of evolving the SSP to address emerging aviation sectors, embrace digital tools, and integrating sustainability goals into safety planning.
- 1.3 As the aviation industry continues to move toward digitalization, decarbonization, and post-pandemic recovery, SSPs must be leveraged not only for safety assurance but also for long-term resilience and efficiency. This paper explores how the SSP framework can be align with broader sustainability and development goals across the Asia-Pacific region.

2. DISCUSSION

The Role of SSP in Sustainable Aviation

- 2.1 The SSP enables States to systematically manage aviation safety based on risk prioritization and data-driven oversight. A mature SSP empowers authorities to identify emerging hazards, allocate resources more effectively, and promote performance-based regulation. This approach enhances both safety outcomes and regulatory efficiency.
- 2.2 SSPs also support economic and environmental sustainability. By embedding safety into all aspects of aviation operations and governance, States can reduce unnecessary burdens on compliant operators, prevent costly disruptions, and promote a culture of continuous improvement. These outcomes contribute to resilient, efficient, and sustainable aviation systems.

CAAM's Progress and Lessons Learned

- 2.3 Malaysia, through CAAM, has advanced its SSP through several core strategies. These include adopting risk-based surveillance methods, applying ICAO's SSP Gap Analysis and Monitoring Tools, and strengthening cross-sector collaboration mechanism. Such initiatives have contributed to a more transparent and responsive oversight system.
- 2.4 Despite progress, challenges persist. Gaps in data analytics capabilities, limitations in safety workforce expertise, and the need for better inter-agency coordination continue to affect full implementation. Addressing these challenges is critical to achieving higher levels of SSP maturity and strengthening Malaysia's integrated approach to aviation safety.

Future Directions for Regional SSP Enhancement

2.5 The approach in enhancing SSP implementation across the Asia-Pacific requires collective commitment and innovation. Adoption of digital technologies such as artificial intelligence, automation, and predictive analytics can significantly improve the precision and agility of safety oversight. Incorporating environmental factors into safety metrics will also ensure alignment with global sustainability priorities.

2.6 This paper proposes the establishment of a regional knowledge-sharing platform to promote exchange of tools, case studies, and best practices. Additionally, existing SSP frameworks should be adapted to safely integrate emerging sectors such as Unmanned Aircraft Systems (UAS) and Urban Air Mobility (UAM). These actions will help strengthen collective safety capabilities and foster greater consistency across the region.

3. ACTION BY THE CONFERENCE

- 3.1 The Conference is invited to:
 - a) Note the importance of integrating sustainability considerations into SSP frameworks.
 - b) Encourage ICAO and APAC States to promote regional collaboration and knowledge exchange on SSP best practices and innovations.
 - c) Support the use of advanced analytics and environmental data within SSP oversight processes.
 - d) Consider the development of regional guidance or working groups focused on enhancing SSP maturity aligned with economic and sustainability objectives.

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