61ST CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGIONS

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AGENDA ITEM 4: AIR NAVIGATION

STUDY ON ASSESSING AIRPORT AND ATM/AIRSPACE CAPACITIES

(Presented by Airports Council International & CANSO)

SUMMARY

ACI forecasted that passenger traffic in Asia-Pacific will grow at 3.6% per year over the next three decades, reaching about 10 billion annual passenger traffic by 2054, which is similar to the current global passenger traffic. To accommodate this growth, it is an imperative that both airspace capacity and airport capacity grow to meet future traffic growth, and to enhance utilization and operational performance if necessary. ACI APAC & MID and CANSO entered a strategic collaboration that will include a joint analysis of both the airport and airspace capacities required for the future across the Asia-Pacific. The States are invited to recognize the need to grow capacities to meet traffic growth and support this study between ACI APAC & MID and CANSO by approving the use of traffic sample data that States submit to ICAO on an annual basis for enroute airspace safety monitoring to be used for this study.

STUDY ON ASSESSING AIRPORT AND ATM/AIRSPACE CAPACITIES

1. INTRODUCTION

1.1 Asia-Pacific airports handled an estimated 3.6 billion passengers in 2025, adding more than 182 million passengers from 2024, more than all other regions combined. Setting sight on the future growth, global passenger traffic is expected to grow at 3% compound annual growth rate (CAGR) through to 2054. Passenger traffic in Asia-Pacific, however, is forecasted to grow at a faster pace at 3.6%, reaching about 10 billion passengers per year by 2054, which is similar to the current global total passenger traffic[1].

1.2 Indeed, Asia-Pacific will be the engine for global traffic growth, with six out of the top ten fastest growing markets located in the region. India, Indonesia and Vietnam are estimated to grow at around 5% per year, for the next 30 years. China is expected to overtake the United States of America to be the largest market by passenger volume, which alone will contribute around 20% of the global passenger traffic growth in the next three decades.

1.3 As the demand for air travel in Asia-Pacific will grow at such exponential rate, it signals the needs for long-term investments and infrastructural developments to capitalise this future growth. In the coming decades, there will be an unprecedented level of demand for investments in airport infrastructure—not only to accommodate the rising traffic volume, but also to meet rising expectations around operational efficiency and passenger experience.

1.4 In early 2025, ACI APAC & MID conducted a focused preliminary assessment involving 30 major airport operators across the region. The study aimed to quantify capital expenditure (CAPEX) plans over the 2026–2035 horizon. The results indicated a total investment of over USD 240 billion dedicated to both upgrading existing facilities (brownfield projects) and building new airports (greenfield projects). These investments will create additional capacity for 1.24 billion passengers—the equivalent of more than 14 airports the size of Haneda Airport[2].

1.5 Conversely in air traffic management (ATM), Asia-Pacific is enhancing its capacity and modernising its capabilities through the Asia/Pacific Seamless Air Navigation Service Plan which is consistent with the ICAO Global Air Navigation Plan. The CANSO-led initiative of Complete Air Traffic System (CATS) concept of operations, together with various ATM enhancement initiatives, are helping regional Air Navigation Service Providers (ANSPs) to be prepared for future growth.

1.6 These initiatives and investment plans, though substantial, represent only the visible portion of the much larger iceberg of long-term demand for capacity in order to address the anticipated growth, not just on the ground, but also in the skies. Indeed, ATM/airspace capacity must grow in tandem with airport capacity to enhance utilisation and operational performance in order to accommodate the growing demand for air travel in the region.

1.7 Operational performance is a strategic priority for airports and ANSPs, underpinning safe, efficient, and resilient air transport that drives passenger satisfaction, supports airline growth, and ensures optimal use of infrastructure such as runways, taxiways, stands, terminals and airspace. As such, the development pace of capacity on the ground and in the skies shall be paralleled to alleviate the airport and airspace capacity imbalance and operational inefficiencies.

1 ACI World Air Traffic Forecast 2025-2054 (WATF 2025)
2 ACI APAC & MID Airport CAPEX Projects in the Asia-Pacific and Middle East (2025–2035)

2. DISCUSSION

Strengthening Collaboration between ACI APAC & MID and CANSO

2.1 Capacity optimisation and enhancement between airports and ATM are no longer a question of only developing concrete, steel and software. Airport and industry stakeholders shall further enhance collaboration, and exchange accurate and timely information. The collective aims are to improve efficiency and resilience of airport and ATM operations, which shall also focus on optimising the use of existing resources and improving the predictability of air traffic.

2.2 It is against this backdrop, ACI APAC & MID and CANSO signed a Memorandum of Cooperation, establishing a formal framework for collaboration between the region's airport and ATM communities. The agreement was signed, on 13 May 2026, by the President & CEO of CANSO, Simon Hocquard, and Director General of ACI APAC & MID, Stefano Baronci, during the ACI Asia Pacific & Middle East Regional Assembly, Conference & Exhibition (RACE) in Bangkok, Thailand.

2.3 This partnership aims to ensure that airport and airspace capacity expansion, optimisation and improvements advance in tandem, which serves the strategic importance as Asia-Pacific prepare for a period of extraordinary growth in air travel. The agreement commits to assess existing and potential airport and airspace capacities across the region; identify operational and systemic misalignments between airport and airspace development; propose mitigation measures and best practices, including Airport Collaborative Decision Making (A-CDM), Air Traffic Flow Management (ATFM), and Total Airport Management (TAM); and conduct a regional assessment to ensure the region's aviation ecosystem is future-ready.

2.4 The agreement builds on a resolution adopted by the ACI APAC & MID Regional Assembly in New Delhi in April 2025, through which airport operators committed to promoting the optimisation of existing capacity and the development of new infrastructure both on the ground and in the skies[3]. Additionally, it aligns with Asia and Pacific Ministerial Declaration on Civil Aviation (Delhi), section 4 Air Navigation Services 4.1 "*Commit to resources in modernization and innovation in Air Navigation Services, in tandem with developments in the airport and airline capacity, to support recovery and meet future demand for air travel and new entrants*".

Joint Study on Assessing Airport and Airspace Capacities

2.5 Airports and the ATM communities in the region should work closely together to meet future demands. An imbalance between traffic growth and capacity optimisation, either of airports or of airspace, will result in delays or missed opportunities. With the support from Air Traffic Management Research Institute (ATMRI)[4], ACI and CANSO are embarking on a project to model and assess airport and ATM capacities in the region and whether these capacities will meet future traffic growth. An assessment of airports and ATM capacities will inform us whether the region can meet future traffic growth demands. Capacity forecast is a strategic driver for future investments. The outcome of this project will benefit regional traffic, airport and ATM planning and development.

2.6 This is consistent with and supports ICAO's efforts. The Asia/Pacific Seamless ANS Plan Version 4.0 already recommends that regular airport capacity analysis and ATM capacity assessment be conducted. While some of the capacity assessment is done at the national level, there is also a need to make an assessment at the regional level to consider cross-border interactions. This project by ACI APAC & MID and CANSO will strengthen Asia/Pacific Seamless ANS Plan implementation.

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3 ACI APAC & MID - **Asia-Pacific and Middle East Airports commits to capacity optimisation and infrastructure upgrades-- both on ground and in the air**

4 In 2013, Civil Aviation Authority of Singapore (CAAS) and Nanyang Technological University (NTU) jointly established the ATMRI in Singapore, with the vision to set up a renowned ATM research institute, finding innovative solutions, and catalysing an ATM transformation in the region.

2.7 While capacity is often assessed by individual organisations, there is a clear need for a coordinated approach that considers how airports and airspace interact, and to take into consideration the cross-border dimension too. At present, there is no shared exchange that assess the capacity of airports and airspace in such way. In order to conduct the analyses, it is essential to collect the necessary infrastructure and operational data required. However, approvals from States are often required for collection of such data.

2.8 To do this analysis, the project would need traffic sample data. Today, there is already an ICAO requirement for States to submit annual month of December traffic sample data to the respective Regional Monitoring Agencies (RMAs) for airspace safety monitoring purposes. Significantly, there was an APANPIRG Decision to expand the use of such traffic sample data and empowered the ICAO APAC Office to authorise its use for purposes beneficial to regional ATM.

APANPIRG Conclusion 16/4 – Traffic Sample Data Collection

That, States be advised by the Regional Office that December every year had been adopted for the routine collection of 30 days of traffic sample data to satisfy airspace safety monitoring requirements.

APANPIRG Decision 20/21 – Expand use of safety monitoring data

That the arrangements for annual month of December traffic sample data by all States to satisfy airspace safety monitoring analysis called for by APANPIRG Conclusion 16/4 be expanded to enable this data to also be available for airspace planning and implementation purposes. This will apply only where such data is not otherwise available to regional or State implementing bodies and only with specific written authority of the ICAO Asia/Pacific Regional Office on each occasion.

2.9 On the specific use of this traffic sample data for this joint project by ACI APAC & MID and CANSO, ICAO APAC Regional Office saw the need to seek specific approval from the States. We seek DGCA's approval to use the traffic sample data submitted to the RMAs for this project as it will support the aviation development of the region.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

a) note the growth in demand for air travel in Asia-Pacific in the coming decades, and the imperious needs to increase capacities and operation efficiency on the ground and in the skies are in tandem;

b) acknowledge and support the strategic collaboration between ACI APAC & MID and CANSO to improve efficiency and resilience of airport and ATM operations that would optimise and enhance capacities; and

c) support the ACI APAC & MID and CANSO joint assessment in airport and airspace capacities and approve the use of traffic sample data submitted to the RMAs to be used for this study on capacities.

— END —

Executive Summary for consideration for inclusion in the Conference Report

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Note: Authors of DPs are strongly encouraged to prepare Executive Summary, which will facilitate adequate coverage of the main issues and proposals raised in the paper in the Conference Report.