

**59th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

*Cebu, Philippines
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AGENDA ITEM 9: UPDATES

**ASIA AND PACIFIC
AIR NAVIGATION SERVICES PROVIDER COMMITTEE
(APAC ANSP COMMITTEE) PROGRESS REPORT**

(Presented by the APAC ANSP Committee)

SUMMARY

This paper reports the progress of the work of the Asia and Pacific Air Navigation Services Provider Committee (AAC) in the priority areas of (1) stepping up investments in ANS capacity and capabilities; (2) accelerating the implementation of seamless ANS and enhancing ANS sustainability; (3) collaborating on business continuity and contingency planning; and (4) supporting the operations of oceanic ANSPs.

This paper also requests a two-year extension of the AAC Terms of Reference to progress its remaining tasks. States/Administrations are invited to support their ANSPs to actively participate in the work of AAC.

ASIA AND PACIFIC AIR NAVIGATION SERVICES PROVIDER COMMITTEE (APAC ANSP COMMITTEE) PROGRESS REPORT

1. INTRODUCTION

1.1 The 57th DGCA Conference held in Incheon, Republic of Korea in July 2022, agreed in its action item 21 to form a committee of air navigation services providers (ANSPs), involving Civil Air Navigation Services Organisation (CANSO) and International Air Transport Association (IATA), to cooperate in the implementation of regional air navigation services (ANS) initiatives including the ICAO Asia/Pacific Seamless ANS Plan; and to coordinate with ICAO for the purposes of aligning the activities of the committee with the Asia/Pacific Seamless ANS Plan and informing APANPIRG and DGCA Conference of its activities and progress.

1.2 The APAC ANSP Committee held its inaugural meeting on 17–18 April 2023 in Bangkok, Thailand. The meeting elected the following persons :

- As Chair :
 - Mr. Han Kok Juan, Director General, Civil Aviation Authority of Singapore;
- As Vice-Chairs :
 - Dr. Nopasit Chakpitak, President, AEROTHAI,
 - Mr. Miao Xuan, Deputy Director General, ATMB of CAAC,
 - Mr. Marc Houalla, Director, French Polynesia Civil Aviation Services, and
 - Mr. Soh Poh Theen, Director Asia Pacific Affairs, CANSO.

1.3 The Terms of Reference (TORs) below were adopted:

- a) Initiate collaboration between ANSPs of States and other stakeholders to develop and implement regional ANS initiatives including the ICAO APAC Seamless ANS Plan;
- b) Identify opportunities for collaboration between ANSPs of States, CAAs and other stakeholders for regional ANS;
- c) Deliberate and recommend optimal solutions that constitute building blocks for the Seamless ANS Plan, priorities and timelines of their implementation;
- d) Update ICAO and APAC States on the Committee’s activities through forums such as APANPIRG and the DGCA Conference, with a view to synchronising implementation efforts across the APAC region; and
- e) Information sharing and capacity building.

1.4 Since the first meeting in April 2023, two-onsite meeting took place, in Singapore in October 2023 and in China in July 2024.

WORK UNDERTAKEN BY APAC ANSP COMMITTEE

1.5 The inaugural APAC ANSP Committee meeting adopted a framework to organize the work of the Committee into four work streams, each focusing on an area of priority (see Annex A for Leads and members of the work streams). The AAC has completed a considerable amount of work within the short duration and the summary of the progress of the AAC is as follows.

1.6 The first work stream (WS1) area of priority is **“Step up investments in ANS capacity and capabilities and share requirements and best practices in the procurement of ANS systems”**. Focusing on the areas of WS1 priority, nine tasks were selected to be led by China, Thailand, Hong Kong China, and Singapore, as follows:

- a) Task 1: To formulate a scheme of collaboration on capacity building and technical assistance among ANSPs, for guiding ANSPs in helping each other to improve capacity and capability, including personnel training, technical assistance, and equipment support, etc.
- b) Task 2: To handle capacity building and technical assistance among ANSPs according to the collaboration plan, including secondment or attachment of subject matter experts among ANSPs for personnel training or onsite support.
- c) Task 3: To explore new technology in facilitating regional Air Navigation System (ANS) modernization, with the involvement of ATM technology industry.
- d) Task 4: To create collaborative platforms in new technology for cross-border trials, to facilitate regional ANS modernization, with the involvement of ATM technology industry.
- e) Task 5 : To gather ANSPs needs and plans for ANS systems digitalization/modernization, and explore the feasibility and requirements.
- f) Task 6: To collaborate to organize an APAC Innovation and Capacity Building Symposium to build capacity and promulgate innovative technologies for ANS digitalization
- g) Task 7: To encourage ANSPs to share experiences and best practices in ANS systems planning, procurement, implementation, maintenance, and whole-life cycle management.
- h) Task 8 : To draft a common ANS system procurement guideline, for ANSPs consideration in APAC region.
- i) Task 9: To take stock on the guidance materials available from ICAO, APAC, and CANSO related to ANS systems, and consolidate an e-library with classification, helping ANSPs to make reference easily in ANS system planning, procurement, and implementation.

1.7 Three out of the nine tasks have been completed:

- a) Task 1 has been completed. China and Singapore took the lead and worked closely with each other to complete drafting the “Asia and Pacific Air Navigation Service Provider Committee Collaboration Plan to Step Up Capacity and Capability for ANS System” (The Collaboration Plan for short) . The Collaboration Plan (Version 0.1) had been approved by AAC in Oct. 2023, which provides guidance in collaborative activities among ANSPs.
- b) Task 5 has been completed. Led by Singapore, WS1 and WS2 conducted a combined survey on capacity building and system modernization plans and challenges faced by ANSPs in the implementation of seamless ANS within the APAC region. The initial survey result had been analyzed in the AAC online meeting on 14 March 2024. A full presentation of the result was made at AAC/3 at Chengdu in July 2024. The findings of this survey have provided the AAC with deeper insights on the needs of the ANSPs within APAC, and guided WS1 to refine its work with the identified avenues and areas of support. It has also guided WS2 in developing strategies to accelerate the development and implementation of seamless ANS and enhance ANS sustainability.

- c) Task 6 has been completed. The Asia Pacific Regional Innovation and Capacity Building Symposium 2023 (APICS 2023) has been successfully jointly organized by CAAC, CADHK and Hong Kong International Aviation Academy (HKIAA), on 14-15 December 2023. The symposium's topic was "Uniting the Strength of Innovation for Building a Seamless Sky". It had provided an important platform for strengthening exchanges and cooperation in civil aviation technology innovation.

1.8 The other tasks are being carried out on schedule, and the following 2 tasks have made substantial progress.

- a) Task 2: The ATMB of CAAC and Nanjing Les Information Technology Co., Ltd. (Les) co-hosted a CNS/ATM workshop from 12 to 25 May 2024, in Nanjing, China. The workshop was provided at no cost to all ANSPs in APAC region and was structured with one week of training, followed by one week of technical discussion. The workshop helped to kick start the strengthening of technical exchanges and cooperation among APAC ANSPs under the collaboration framework of AAC. Participating ANSPs commended the opportunity to allow the sharing of planning development and experiences, including challenges encountered in making concerted efforts to the timely implementation of the ICAO APAC seamless ATM plan.
- b) Task 9: Hong Kong China has completed the draft template of ANS system's e-library guidance materials and would continue to update and provide a comprehensive list of materials that would aid ANSPs in their journey to acquire new systems and ANS capabilities.

1.9 The second area of priority is "**Accelerate the development and implementation of Seamless ANS and collaborate on green initiatives to enhance ANS sustainability**". The planned tasks of Work Stream 2 are as follows:

- Task 1: Review current situations including existing processes and seek ways to make ANS implementation easier;
- Task 2: Collaborate on establishing the key Trajectory Based Operations (TBO) building blocks, including SWIM and FF-ICE, to support the development and realisation of TBO in APAC;
- Task 3: Collaborate on the implementation of initiatives such as remote towers, user-preferred routes, and free route airspace; and
- Task 4: Assist APAC ANSPs with enhancing their ATFM capabilities so that all APAC ANSPs can achieve higher levels of participation in APAC Cross-Border Multi-Nodal ATFM Collaboration (AMNAC) in alignment with the ICAO *No Country Left Behind* Principle.

1.10 Task 1 is ongoing. A joint survey was conducted by WS1 and WS2 on capacity building and system modernization plans, and challenges faced by ANSPs in the implementation of seamless ANS within the APAC region with the results of the survey discussed at AAC/3 in July 2024. The survey identified ATFM and Extended Arrival Management (XMAN) as priority cross-border operational elements, in addition to ongoing ATM modernization efforts on SWIM, FF-ICE and the development of the global TBO concept. WS2 should also collaborate with WS1 on capacity building needs that may arise to support seamless ANS.

1.11 Task 2 is ongoing. The APAC TBO Pathfinder Project was initiated in October 2023 to facilitate the development of pathways for the realization of the ICAO global TBO concept in APAC. The project kick-off meeting was subsequently held from 3 to 5 April 2024, where participants shared

their TBO-related plans on SWIM, FF-ICE and the Connected Aircraft concept which are key building blocks. Three workgroups (WG) were also formed within the project, with each focused on progressing specific goals and deliverables.

1.12 Task 3 is ongoing. Some members of WS2 are participating in the Free Route Operations (FRTO) initiative undertaken by WS4. To remain effective and avoid overlap, WS2 will support WS4 on FRTO-related initiatives.

1.13 Task 4 is being reviewed. The joint survey by WS1 and WS2 has highlighted the emphasis APAC ANSPs placed on enhancing and strengthening cross-border ATFM in our region. WS2 will review the ongoing ATFM developments to better understand the challenges and needs, before proposing the way forward.

1.14 The third area of priority is **“Collaborate on business continuity and contingency planning”**. The planned tasks of Work Stream 3 are as follows:

- a) Review and provide recommended edits to regional guidance material (APAC Regional ATM Contingency Plan V3.0) on baseline operational contingency procedures as necessary;
- b) Develop a regional ‘how to’ document for coordination procedures that can be used as an easy reference document by ANSPs;
- c) Develop and/or review/edit Operational Contingency Plans (OCPs) for individual APAC ANSPs through collaboration with neighboring ANSPs, with support from the international organizations with a focus on how they can assist airspace partners when there is a contingency event, i.e. Continuity of Service (COS);
- d) Exercise regional OCPs via table-top exercises;
- e) Utilize an easily accessible electronic platform for sharing of OCPs as well as information/documents developed by other WSs; and
- f) Collaborate with Work Stream 4 on the development of business continuity and contingency plans.

1.15 The outcomes achieved by WS3 since inception are as follows:

- a) Formulated the draft APAC Regional Contingency Framework and delivered to ICAO.
- b) Developed a ‘Contingency Arrangements’ template as part of the new framework.
- c) Partnered with ICAO to hold an APAC/MID contingency arrangements workshop.
- d) Demonstrated an electronic platform for sharing contingency information via operationally relevant tabletop exercises.
- e) Agreed to further support ICAO with advancing the draft APAC Regional Contingency Framework.

1.16 Work Stream 3 agrees that comprehensive and well-coordinated plans between ANSPs and airspace users can mitigate the impact of disruptions on a safe and reliable ANS for the flying public. Therefore, the workstream has committed to identifying the critical roles of all stakeholders, further developing comprehensive procedures, and providing guidance for maintaining a proactive approach to contingency planning and business continuity.

1.17 The fourth area of priority is “**Support the operations of oceanic ANSPs**”. The planned task of Work Stream 4 are as follows:

- a) Implement Free Route Trajectory Operations (FRTO) and/or performance-based navigation (PBN) trajectories;
- b) Implement Continuous Climb and Descent Operations (CCO and CDO);
- c) Develop ATM system interoperability with the objective of establishing a common core oceanic ATM systems’ specification for interoperability purposes; and
- d) Develop contingency plans amongst ANSPs with the objective of providing the committee with a clear picture of the development of contingency plans throughout APAC oceanic airspaces and defining scheduled contingency plans test dates.

1.18 Work Stream 4 has launched a Free Route Trajectory Operations (FRTO) project in 2024 to initiate and facilitate work on city pairs route optimization. The work stream agreed that the implementation of FRTO, CCO, CDO and development of oceanic ATM systems interoperability and contingency plans underline the aviation industry’s ongoing commitment to efficiency, safety, and environmental sustainability. As technology continues to advance, it is crucial for the industry to embrace these developments to streamline operations and work towards a more sustainable and efficient future.

1.19 The ATM system interoperability document, which aims at defining a range of functions of an ATM oceanic system to facilitate ATM oceanic systems operability, has well progressed. Some tweaks have to be provided to the document to be agreed by Japan. Many countries expressed the fact that they really needed this document and asked France, India, Japan and New Zealand to finalize the interoperability document as quickly as possible. It is also to be reminded that this document is a non-binding document for Oceanic ANSP.

1.20 The next in-person meeting of the APAC ANSP Committee meeting is planned early 2025. Any State wishing to host the next meeting or to join AAC is invited to contact the Secretariat, Mr. Raphael Guillet, Chief of ICAO APAC RSO at rguillet@icao.int

2. DISCUSSION

EXTENSION OF THE TERMS OF REFERENCE

2.1 At its last AAC/3 meeting in July 2024, the AAC noted that a considerable work had been done since the formation of the AAC two years ago. ANSPs should capitalize on the momentum gained, continue to commit resources and collaborate to realize elements of the ICAO APAC Seamless ANS Plan. The AAC recommends that a two-year extension would be ideal to advance with the various tasks. The DGCA Conference is invited to approve this extension request.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

- a) Note the progress of the work of the APAC ANSP Committee;
- b) Approve the extension of the Terms of Reference of the APAC ANSP Committee for two more years;
- c) Encourage States/Administrations to support their ANSPs in contributing towards the work of the APAC ANSP Committee

.— END —

Annex A: Members of Work Streams of APAC ANSP Committee

Work Steam 1	Work Steam 2	Work Steam 3	Work Steam 4
China (Lead)	Hong Kong China (Lead)	Japan (Lead)	France (French Polynesia) (Lead)
Thailand (Lead)	Singapore (Lead)	Malaysia (Lead)	India (Lead)
Australia	Thailand (Lead)	USA (Lead)	Philippines (Lead)
Hong Kong China	USA (Lead)	China	IATA (Lead)
Macau China	Cambodia	Hong Kong China	China
India	China	India	Fiji
Mongolia	India	Mongolia	Indonesia
New Zealand	Malaysia	New Zealand	Japan
Philippines	New Zealand	Republic of Korea	New Zealand
Singapore	Thailand	Singapore	Papua New Guinea
Thailand	Vietnam	Thailand	Singapore
Vietnam	ACI	USA	Thailand
CANSO	CANSO	CANSO	USA
		IFATCA	CANSO