International Civil Aviation Organization

Second Meeting of the APAC ANSP Committee (AAC/2)

Singapore, 22-23 October 2023

Agenda Item 2: Work Programme

The Collaboration Plan to Step up ANS Capacity and Capabilities

(Presented by China and Singapore)

SUMMARY

This paper presents the Collaboration Plan drafted by the first work stream of the Air Navigation Service Provider (ANSP) Committee (AAC), which aims to develop an Asia Pacific ATM technology collaboration framework for collaboration on capacity building and technical assistance which can include training and scheme for secondment or attachment of subject matter experts among ANSPs..

1. INTRODUCTION

1.1 The inaugural Asia and Pacific (APAC) Air Navigation Service Provider (ANSP) Committee (AAC) meeting adopted a framework to organize the work of the Committee into four work streams, each focusing on an area of priority.

1.2 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". Led by China and Thailand, with members including, Hong Kong China, New Zealand, Singapore, and CANSO.

1.3 Focusing on the aims and objective of the work stream, WS1 drafted the planned tasks, which had been approved in the online AAC meeting on June 15th, 2023.

2. DISCUSSION

2.1 Out of 9 tasks of WS1, the first task has been set as high priority with a delivery targeted by of this year. The deliverable is a collaboration plan to work with ICAO APAC Regional Office to provide training and technical assistance through programmes involving ANSPs and their experts.

2.2 China and Singapore took the lead and worked closely with each other to complete the drafting of the Collaboration Plan. The Collaboration Plan outline is as follows:

Section 1 Introduction

Section 2 Scopes of Collaboration

Section 3 Roles of Stakeholders

Section 4 Implementation Process

- Planned Collaboration Programmes
- Ad-hoc Collaboration Programmes

Section 5 Summary of Collaboration

- Annual Review

2.3 On August 9th, the draft version of Collaboration Plan was circulated in WS1 for comments.

2.4 The Collaboration Plan (Version 0.1) is proposed to be discussed in this meeting, which has been incorporated with the feedbacks from Hong Kong China.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Note the progress of the work of the first work stream;

b) Discuss the Collaboration Plan (Version 0.1) and provide any recommendation.

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Asia-Pacific Air Navigation Service Provider Committee (AAC) Collaboration Plan to Step up Capacity and Capability for ANS Systems

By China and Singapore, in collaboration with

Members of AAC Work Stream 1

Version 0.1

Date: 28 August 2023

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1 Introduction

It is important that ANSPs implement the ICAO APAC Seamless ATM Plan collaboratively, so that the concepts of operation and technologies can be adopted seamlessly on a pan-regional scale, to maximize the safety and efficiency benefits, and save resources. This requires ANSPs to work together to improve capacity and capability.

The first meeting of the Asia and Pacific (APAC) Air Navigation Service Provider (ANSP) Committee (AAC/1) was convened in Bangkok, Thailand, on 17-18 April 2023.The AAC agreed to adopt a framework to organize the work of the Committee into four work streams based on areas of priority. Working groups comprising representatives from ANSPs, CANSO, IATA and other recognized bodies of ICAO will be set up to initiate work programmes under each work stream.

The first work stream (WS1) would be focused on the deliverables of **"Step up investments in ANS capacity and capabilities and share requirements and best practices in the procurement of ANS systems".** The working group for this area of priority will be led by China and Thailand, with members including, Hong Kong China, New Zealand, Singapore, and CANSO. One of the objective, is to develop an Asia Pacific ATM technology collaboration framework for collaboration on capacity building and technical assistance which can include training and scheme for secondment or attachment of subject matter experts among ANSPs.

Following the approval of the aims and objectives of WS1, the working group drafted WS1 tasks list with inputs from Hong Kong China. The tasks had been approved in the online AAC meeting on 15th June, 2023. A list of tasking and objective of WS1 can be found in **Annex A.**

2 Scopes of Collaboration

To facilitate the recovery of aviation and to work towards a more resilient future, it is important ANSPs help each other in improving personnel's capabilities, as well as maintaining ANS systems' robustness and efficiency. The scopes of collaboration are recommended as follows.

a) **Training of Personnel**. Personnel quality and ability are pivotal factors to providing safe, efficient, sustainable, and resilient ANS. It is imperative that training opportunities (local/overseas) can be provided for all ATM/CNS personnels, including air traffic

controllers, ATM/CNS engineers, meteorological engineers, managers, etc. at different stages of their professional careers in aviation. ANSPs should continue to commit resources to ensure a steady availability of training courses in the region. The proposed courses can cover the domain of improvement of skills, experience sharing, introduction of new technology, etc.

b) **Technical Assistance**. On-site technical assistance is encouraged among ANSPs as it is a more impactful means for the sharing and transmission of expertise. The pooling of knowledge of experts also paves the way for collective advancement and growth. Technical assistance to ANSPs can include providing on-site support in ANS systems troubleshooting, data adjustment, flight check, equipment installation, etc. Concurrently, secondment of experts can also be considered.

c) **Spare Parts Support**. Considering that most life cycles of ANS systems' spans for more than 10 years, production of spare parts maybe discontinued when the system is still in service. As ANSPs upgrade their systems, there might be opportunities for ANSPs to share their spare part stockpiles of the decommissioned systems, which might be still usable for others. This sharing enhances resources management and contribute to the solidarity of AAC family.

d) **Procurement Support**. Investments in ANS systems are significant capital expenditure and require in-depth knowledge and rigorous studies to find the most cost-effective solutions for users. To ensure better value for money, ANSPs are encouraged to work together to share requirements and best practices in the procurement of ANS systems include considerations in systems master planning, technical specifications, back-up / redundancy arrangements, project implementation, conduct of safety case analysis, building of business cases, lifecycle cost management, maintenance management, etc. Where possible, ANSPs are also encouraged to co-ordinate to procure ANS systems together to achieve potential benefits such as cost savings, smoother integration and avoiding vendor lock-in.

3 Roles of Stakeholders

The collaboration to step up ANS capacity and capability, including the scope listed in the previous chapter, relies on the goodwill contributions of 3 main groups of stakeholders.

Asia-Pacific ANSP Committee (AAC)

- Provide direction and guidance of collaboration scope and implementation.
- Assess offers and requests of ANSPs with the support of secretariat team.
- Monitor and review collaboration progress and accomplishments.

Asia-Pacific ANSPs

- Provide resources and expertise to support the collaboration plan.
- Request support under the collaboration plan.

ANS System Vendors

- Provide technical advice and support, where applicable, under the collaboration plan.

4 Implementation Process

The ANSPs collaboration programmes (including assistance and requests) are suggested to be categorized into planned programmes and ad-hoc requests. Planned programmes generally cater to ANSPs seeking assistance for planned system implementation and its related items, while ad-hoc requests can be related to unplanned system outage and spare part request for business continuity. It is highly encouraged for requesting ANSPs to factor in "assistance" requirements into their planned system implementation process.

4.1 Planned Collaboration Programmes

Through a structured and periodic submission of assistance requests, the AAC can then make a coordinated effort to source/identify and assisting State/Administration(s) for the request. Providing sufficient look ahead is essential for the assisting State/Administration in their resource planning and management.

a) **Assistance/requests programmes submission**. The requesting ANSPs are to submit their assistance request(s) to the AAC no later than 1 year prior to the required assistance. The requesting ANSP should provide as many details as possible in its request, including where appropriate, a desired supporting ANSP(s). Submission schedule can be decided by the AAC at later stage (e.g. twice a year).

States/Administration planning to offer training courses should furnish the course details (e.g. the training assistance

programmes is recommended at least including the course name, goal, place, time, duration, medium of instruction, fare, and the trainee pre-requites, etc.) as early as possible.

States/Administration planning to offer technical assistance should furnish details, including scope and type of assistance (operational/engineering), mode of delivery of assistance, level of expertise, cost if any.

States/Administration planning to offer spare parts support should furnish the details, including type, model, specifications, quantity, conditions, legal conditions of usage, cost if any.

States/Administration that are interested in contributing and undertaking procurement support should furnish the details, including the systems, capabilities and technologies of interest.

It is recommended the ANSPs introduce its assistance/requests programmes in the annual AAC meeting, which have been passed evaluated by the assessment team, to help AAC and other ANSPs understand better, and questioning.

b) **Assistance/requests programmes assessment**. It is recommended that a secretariat team be set up within the AAC to; collate, preliminarily classify, filter the assistance/requests programmes, and support the AAC in decision making.

c) **Assistance/requests programmes approval.** The AAC with assistance from the secretariat team will formulate and endorse the planned collaboration programmes for the coming year.

4.2 Ad-hoc Collaboration Programmes

The ad-hoc collaboration programmes are mostly requests for ad-hoc on-site technical assistance or spare parts support. Considering the convenience and efficiency, it is encouraged that the requesting ANSP collaborate directly with their desired assisting ANSP and inform AAC.

5 Summary of Collaboration

5.1 Annual Review

In order to conclude and share the whole-year collaboration achievements among ANSPs, it is recommended that a wrap up of the collaborations programmes accomplished, including quantities, experiences and suggestions, etc. be incorporated into the agenda in the annual AAC

meeting. The wrap up of the collaborations programmes would be valuable for the assessment of the effectiveness of the programmes as well as identification of any rooms for enhancement.

Annex A

Tasks of Work Stream 1

Number	Description	Lead	Participants	Priority	Deliverable	Target date	Status
1	To formulate a scheme of collaboration on capacity building and technical assistance among ANSPs.	China, Singapore	ANSPs	H	A collaboration plan to work with ICAO APAC Regional Office to provide training (e.g installation and data exchanges) and technical assistance (e.g equipment spares)	2023	
2	To handle capacity building and technical assistance among ANSPs.	China, Singapore	ANSPs	H	A programme involving ANSPs or experts to provide the training and/or assistance according to the collaboration plan	Start from 2023	
3	To explore new technology in facilitating regional ANS modernization, with the involvement of ATM technology industry.	Singapore, Thailand	ANSPs, ATM technology industry	M	Recommendation of new technology to be applied in ANS for the APAC region.	Start from 2023	
4	To create collaborative platforms in new technology for cross-border trials, to facilitate regional ANS modernization, with the involvement of ATM technology industry.	China, Thailand	ANSPs, ATM technology industry	M	A platform in new technology for cross-border trials.	Start from 2023	

5	To gather ANSPs needs and plans for ANS systems digitalization/modernization and explore the feasibility and requirements.	China, Singapore	ANSPs	H	A living document, capturing state/administration plans and status for ANS system digitalization/modernization.	Start from 2023	
6	To collaborate to organize an APAC Innovation and Capacity Building Symposium to build capacity and promulgate innovative technologies for ANS digitalization.	APAC Regional Office, Hong Kong China	ANSPs	H	A symposium.	2023	
7	To encourage ANSPs to share experiences and best practices in ANS systems planning, procurement, implementation, maintenance and whole-life management.	APAC Regional Office, Thailand	ANSPs	M	ANSPs in the AAC to share their experience from system implementation in subsequent AAC forums and/or other relevant meetings or forums	Start from 2023	
8	To draft a common ANS system procurement checklist for ANSP consideration in APAC region.	China, Singapore	ANSPs	M	A guiding checklist for ANS system procurement with established review cycle to maintain its relevance to current ANS requirements	Start from 2023	
9	To take stock on the guidance materials available from ICAO APAC and CANSO related to ANS systems, and consolidate a library of guidance materials with classification, that could facilitate ANSPs to make reference in their planning, procurement and implementation of ANS systems.	APAC Regional Office, Hong Kong China	ANSPs	M	An e-library of guidance materials with classification.	2024	