



ICAO

*International Civil Aviation Organization***Sixth Meeting of the Asia/Pacific Air Traffic
Management Automation System Task Force
(APAC ATMAS TF/6)***Bangkok, Thailand 2-4 June 2025*

Agenda Item 9: Review of the Terms of Reference (ToR) and Task List

REVIEW OF ToR AND TASK LIST

(Presented by the Secretariat)

SUMMARY

This paper presents the ToR and Action Items of ATMAS TF for meeting review and update.

1. INTRODUCTION

1.1 The Twenty-third Meeting of the CNS Sub-Group (CNS SG/23) of APANPIRG in September 2019 adopted the Decision CNS SG/23/13 for the establishment of the ATM Automation System Task Force (ATMAS TF).

**Decision CNS SG/23/13 (SURICG/4/5) - Establishment of ATM Automation
System Task Force (ATMAS TF)**

The ATM Automation System Task Force (ATMAS TF) with ToR provided in Appendix L to the CNS SG/23 Report will be established.

1.2 This paper presents the ToR and Action Items of ATMAS TF for meeting review and update.

2. DISCUSSION

2.1 The CNS subgroup of APANPIRG emphasized the need for proactive efforts in organizing forums in this Region on the subject of ATM automation systems in order to share operational and technical experience and shape the future development roadmap and performance-based guidance for the ATM automation system. The ICAO Asia Pacific Regional ATM Automation System Symposium (APAC RATMS) was held in Nanjing, China, from 22 to 23 November 2018.

2.2 The objectives of ATMAS TF were to take forward all matters arising in the APAC RATMS and to address the regional needs, such as developing regional guidance to facilitate the implementation, enhancements, operation and maintenance of ATM automation systems and services in the Region.

2.3 During the ATMAS TF/1, the Meeting discussed various Action Items proposed by brainstorming sessions with alignment to AI 2.2 and AI 2.3, based on a proposed draft by China, Hong Kong China and Singapore. The ATMAS TF/2 meeting updated the Action Item list for ATMAS TF,

reviewed the Action Items arising from the APA Task Force, and agreed to consolidate APA TF work in ATMAS TF/3.

2.4 After the dissolution of the APA TF adopted by CNS SG/25 through **Decision CNS SG/25/16**, the ongoing AIDC implementation work was taken up by ATMAS TF, while ACSICG agreed to handle communications-related issues. In order to integrate APA TF ToR into ATMAS TF ToR, the revised ATMAS TF ToR proposed by the ATMAS TF/2 was adopted by CNS SG/25 through **Decision CNS SG/25/17**.

2.5 ATMAS TF/5 reviewed the ToR. However, no modifications were proposed. The latest ToR of ATMAS TF is provided in **Appendix A** to this paper.

2.6 To follow up on **Action Item 2-6** of ATMAS TF/2 to consolidate Action Items arising from APA Task Force into ATMAS TF Action Item list, the Secretariat revised the format of the APA TF Action List from a Word file into Excel format to be consistent with the Action Item List with ATMAS TF and supplemented the follow-up actions from the former APA TF meetings. The ATMAS TF/3 reviewed and updated the Action Item list and agreed to combine the outstanding action items from APA TF into the ATMAS TF action item list.

2.7 The Action Item List updated by the ATMAS TF/5 meeting is provided in **Appendix B** to this paper for meeting review and update.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to:

- a) note the information contained in this paper;
- b) review and revise the ToR in **Appendix A** if necessary;
- c) review and update Action Items provided in **Appendix B**; and
- d) discuss any relevant matter as appropriate.

Presentation of the initial proposal:

1. The *Background* and *Comments* are provided in *italic text*.
2. The text of the proposed amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

- | | |
|---|-----------------------------------|
| a) Text to be deleted is shown with a line through it. | text to be deleted |
| b) New text to be inserted is highlighted with grey shading. | new text to be inserted |
| c) Text to be deleted is shown with a line through it followed by the replacement text which is highlighted with grey shading. | new text to replace existing text |

**REVISED TERMS OF REFERENCE OF
ASIA AND PACIFIC
ATM AUTOMATION SYSTEM TASK FORCE (ATMAS/TF)**

Consists of objectives and deliverables as follows:

The Objectives of the APAC ATMAS/TF are to:

- 1) *Keep abreast of the latest developments in ATM automation systems and associated technologies to cope with forthcoming development and implementation of ICAO SARPs, the Global Air Navigation Plan (GANP), the Global Aviation Safety Plan (GASP) and Asia/Pacific Seamless Air Navigation Service (ANS) Plan (APSAP);*
- 2) *Facilitate the implementation, enhancements, operation and maintenance of ATM automation systems and services identified in the Aviation System Block Upgrades (ASBU) elements and APSAP elements using the project management principles where appropriate;*
- 3) *Ensure continuous and coherent development of the ATM automation systems that is harmonized with adjacent regions to enhance systems robustness, resilience, interoperability and cybersecurity; and*
- 4) *Review, identify and address major issues in technical, operational, safety and regulatory aspects to facilitate the implementation or provision of safe, efficient and orderly ATM services.*
- 5) *Encourage collaboration among ANSPs in implementing ATM automation systems so as to reduce operating costs and enable quick implementation of new requirements to cope with new challenges.*
- 6) *Follow up, oversee and share experiences of the AIDC implementation and provide a coordination framework among States for wider and effective implementation of AIDC across the APAC region.*

Deliverables to meet the Objectives:

- 1) *To submit progress report to the ICAO CNS Sub-group while keeping ATM Sub-group informed of addressing the APAC ATMAS/TF deliverables (listed in 2 to 7 below);*

2) To support the ICAO in making specific recommendations and developing guidance materials, such as minimum functional/performance requirements and additional/local requirements, which aim at facilitating the implementation or provision of robust, safe, efficient and orderly ATM services by the use of existing and/or new procedures, facilities and technologies in relation to ATM automation systems;

3) To review outcome of the AN-Conf., DGCA Conference, APANPIRG, CNS Sub-group, ATM Sub-group, RASMAG, and SURICG related to ATM automation systems, revise and update a tasks list and action items for the ATMAS/WG;

4) To study and identify applicable applications, share experience, and recommend the best industry practice in the Asia and Pacific Regions considering:

- Systems planning and design
- Open / Service Oriented Architecture
- HMI adaptation, data synchronization and operational enhancements
- Safety nets
- ICAO roadmap in the GANP / ASBU
- Systems interoperability
- Standardization of information exchange
- AIDC Implementation
- Operation and maintenance practice
- Acceptance and certification
- Flight inspection
- Cybersecurity
- Safety assessment
- Training
- Transition

5) To encourage research and development, trials and demonstrations of applications and technologies, and, as necessary, steer for the sharing of this information and expertise between States/Administrations through organizing educational seminars and symposia to educate States/Administrations and airspace users;

6) To formulate draft Conclusions and Decisions relating to matters in the field of ATM automation systems that come within the scope of the APANPIRG, CNS Sub-group, ATM Sub-group, and RASMAG work plan; and

7) To collaborate with relevant international organization (such as EuroControl) for harmonisation of ATM system requirements.

Timeframe for Deliverables:

For deliverable item 2 on guidance materials, it is anticipated that a first draft could be made available in 3 years after establishment of the Task Force for seeking endorsement by CNS Sub-group, after which the guidance materials would be updated/enhanced on an on-going basis. For other deliverable items 3-7, they will be made available as appropriate subject to review by the Task Force. The life time of the Task Force would be subject to review after endorsement of the first edition of the guidance materials.

Meeting:

The APAC ATMAS/TF shall convene annually with at least one face-to-face meeting per year, which is supplemented by teleconference meetings (e.g. WebEx) as appropriate.

Membership:

All APAC member States/Administrations providing air navigation services in the Asia and Pacific Regions. APAC members should nominate Subject Matter Experts from Civil Aviation Authorities, ANSPs, and other organizations with strong background in engineering and operation in relation to ATM automation systems to participate into the Task Force. The Task Force would also invite representatives of International Organizations recognized by the ICAO Council as representing important civil aviation interests to participate in its work in a consultative capacity.

LIST OF ACTION ITEMS FOR ATMAS TF

Action Item	Subject	Forum Raised	Status / Target Date	Action Party	Status	Remarks / follow-up
1-1	Develop a table to list the current ATMAS status of all states	ATMAS TF/1	ATMAS TF/2	Member States, ICAO Secretariat	Closed	table design by Indonesia / SL by ICAO RO replaced by Action Item 2-2
1-2	Develop check list for ATMAS project management from the scratch of planning, requirement definition, bidding, implementation to operational transition.	ATMAS TF/1	ATMAS TF/3	Member States, ICAO Secretariat	Closed	This check list will be one of the appendix to APAC ATMAS IGD ATMAS TF/3: Presented by Flimsy/01, need further polish ATMAS TF/4: Presented by WP/13, Appendix D of ATMAS IGD Edition 1.3
1-3	Develop APAC Office ATMAS IGD	ATMAS TF/1	ATMAS TF/2	Ad hoc group led by China. Members: Hong Kong China, India, Indonesia, Japan, Malaysia, Myanmar, Nepal, Philippines, Singapore, Thailand and Vietnam	Closed	collaborative work through focal point: task sharing, online discussion and progress tracking
1-4	Propose states to share the current interoperation technology or protocol applied between ATMAS of all states. (e.g. AIDC, OLDI, other protocol, etc.)	ATMAS TF/1	ATMAS TF/2	Member States, ICAO Secretariat	Closed	ATMAS TF/3: Combine to ATMAS meeting agenda
1-5	Propose states to share the current redundancy mechanism at ATMAS level in the same location, such as main, backup, and emergency system.	ATMAS TF/1	ATMAS TF/2	Member States, ICAO Secretariat	Closed	Action Item 1-5 and 1-6 are merged ATMAS TF/3: Combine to ATMAS meeting agenda
1-6	Propose states to elaborate the backup or contingency strategy of ATMAS in different location.	ATMAS TF/1	ATMAS TF/2	Member States, ICAO Secretariat	Closed	
1-7	Study the feasibility to expand APRD function to cover ATM AS issues	ATMAS TF/1	ATMAS TF/2	Hong kong China	Closed	Hong Kong China presented WP/07 in ATMAS TF/2
2-1	Host a webinar about ATM Automation System in 2022.	ATMAS TF/2	ATMAS TF/3	Member States, ICAO Secretariat	Closed	ATMAS TF/3: sucessfully conducted in conjunction with ATMAS TF/3 on 7th June 2022
2-2	Consider the suggestions discussed in the meeting and work out a revised version of the table to list the current ATMAS status of all states in order to build the ATMAS regional repository	ATMAS TF/2	ATMAS TF/3	Ad-hoc group led by Indonesia Members: China, Hong Kong China, Republic of Korea, Singapore, ICAO Secretariat	Closed	ATMAS TF/3: The meeting reviewed and adopted the revised table presented by WP/03.

LIST OF ACTION ITEMS FOR ATMAS TF

Action Item	Subject	Forum Raised	Status / Target Date	Action Party	Status	Remarks / follow-up
2-3	Further progress the development of ATMAS PRD and consider to include AIDC as well.	ATMAS TF/2	ATMAS TF/3	Ad-hoc group Members: China, Hong Kong China, Indonesia, ICAO Secretariat	Closed	ATMAS TF/3: Updated by Hong Kong China through WP/10, the meeting agreed to further discuss.
2-4	Translate the information on MH/T 4029.3 into English first for better understanding by other Member States/Administrations	ATMAS TF/2	ATMAS TF/3	China	Closed	ATMAS TF/3: Presented through SP/01 by China
2-5	State Letter to circulate the advanced draft of ATMAS IGD to seek further comments and inputs from States and the States/Administrations should provide feedback in one month after receiving the State Letter.	ATMAS TF/2	ATMAS TF/3	Member States, ICAO Secretariat	Closed	State Letter AP173/21 was issued to seek comments from States/Administrations
2-6	Consolidate APA/TF action item list into ATMAS/TF action item list in ATMAS TF/3	ATMAS TF/2	ATMAS TF/3	Member States, ICAO Secretariat	Closed	ATMAS TF/3: Presented through WP/06
3-1	The ICAO Secretariat will issue a State Letter to circulate the table of the ATMAS Status in APAC region to collect information from Member States in order to build the repository of the ATM automation systems for APAC Region.	ATMAS TF/3	ATMAS TF/4	Member States, ICAO Secretariat	Closed	AP139-22-CNS - Publication of ATMAS IGD Edition 1.0 and Establish the ATMAS Repository for APAC region on 21 October 2022 ATMAS TF/4: Outcomes has been presented through WP/04
3-2	The ICAO Secretariat will issue a State Letter to circulate the table of AIDC Implementation Status in APAC region with the current status to States/Administrations for supplements and validation.	ATMAS TF/3	ATMAS TF/4	Member States, ICAO Secretariat	Closed	AP135-22-CNS - Validate and Supplement the Table of AIDC Implementation Status in APAC Region on 17 October 2022 ATMAS TF/4: Outcomes has been presented through WP/06
3-3	For each group of common issues, identify in an ACTION PLAN which small working groups to be established when necessary and possible with invitation to aviation industry for input. Develop an action plan for the identified ATSUs with priorities for implementation; Go-teams to assist when required (subject to funding available and requirement in place);	APA TF/1	January to June 2016	by the Task Force	Closed	APA TF/2: few small working group already in place to address some of the issues and established the target date of implementation. (in most case two parties). APA TF/4: Small working group (based on TOR) is considered not practical. Bilateral parties to address some of the issues and established the target date of implementation. (in most case two parties). ATMAS TF/3: From Action Item 1-2 of APA TF/1
3-4	Development of AIDC IGD Edition 1.0 in accordance with item C of TOR. Also need to maintain the AIDC IGD to current and update the consolidated list of issues.	APA TF/4		by the Task Force	On-going	APA TF4: This task link with item c) of ToR, work has been done by the ad hoc WG and endorsed by the Task Force adopted by CNS SG/21 in July 2017 on behalf of APANAPIRG. It may require maintaining the document by the Task Force as necessary. The updated list of consolidated issues is indicators for implementation progress and the list should be updated with items closed or open. APA TF/5: The development of AIDC IGD completed and maintenance of the IGD - On-going APA TF/6: States/Administrations may wish to provide recommendation for updates if necessary. ATMAS TF/3: From Action Item 4-1 of APA TF/4
4-1	Member States/Administrations are requested to bring their latest data to future task force meetings in order to keep the AIDC and ATMAS Repositories up-to-date.	ATMAS TF/4		Member States, ICAO Secretariat		
4-2	The meeting invited Member States/Administrations to review provisional agenda for next ATMAS TF meeting and provide comments or suggestions to the ICAO Secretariat within 2 months.	ATMAS TF/4	Aug-23	Member States, ICAO Secretariat		

LIST OF ACTION ITEMS FOR ATMAS TF						
Action Item	Subject	Forum Raised	Status / Target Date	Action Party	Status	Remarks / follow-up
5-1	Nominate/recommend experts, engage industry for required expertise, and share experiences with ATMAS TF.	ATMAS TF/5		Member States, ICAO Secretariat		
5-2	Consider incorporating the relevant design considerations of an Integrated Arrival and Departure Manager into the ATMAS IGD after implementation and verification.	ATMAS TF/5		Concerned States, ICAO Secretariat		
5-3	review and update the information contained in the ATMAS Repository	ATMAS TF/5		Member States, ICAO Secretariat		
5-4	Form an expert group within ATMAS TF to review the core AIDC messages in the IGD (Members: China, Hong Kong China, Malaysia, Pakistan, Philippines and Singapore(led)), which will work in offline mode and conduct online meeting when necessary.	ATMAS TF/5		Concerned States		