



International Civil Aviation Organization

The Fifth Meeting of ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/5)

Bangkok, Thailand, 30 March – 03 April 2015

Agenda Item 5: Development of Regional ATFM Framework

FRAMEWORK – PRELIMINARY SECTIONS

(Presented by the Secretariat)

SUMMARY

This paper presents the Principles of the Draft Asia/Pacific Framework for Collaborative ATFM, for review by the ATFM/SG.

1. INTRODUCTION

1.1 The Principles of ATFM form the first part of the Background Information section of the Framework document, and provide the basis for the further development of the Framework.

2. DISCUSSION

2.1 The Principles are structured under sub-headings aligned with the Seamless ATM Plan.

2.2 Attachment A provides the Principles with amendments based on the outcomes of ATFM/SG/4 highlighted. Attachment B provides a clean copy of the Principles, presuming the agreement of the meeting to the amendments.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) agree to the Principles for ATFM being included in the Regional Framework for Collaborative ATFM; and
- c) in discuss any relevant matters as appropriate.

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Collaborative ATFM Principles

General Principles

Comment [SS1]: New heading

1. Increased capacity is the primary and central method for management of increasing demand.

FIR boundaries should not limit the delivery of ATFM messages and the coordination and application of ATFM measures.

2. Collaborative Decision-Making (CDM) to achieve optimum ATFM network outcomes while taking into account stakeholder goals.
3. An emphasis on delivery of ATFM services based where practicable on CNS capability, resulting in flexible, dynamic systems delivering optimal ATFM network outcomes while providing equity of access.
- 8.4 Regional distributed multi-nodal network model of inter-connected sub-regional ATFM networks or State ATFM systems, based on system-wide CDM, serving the busiest terminal airspace and major sub-Regional traffic flows.
- 5 Harmonized regional ATFM rules and guidelines based on the ICAO Manual on Collaborative Air Traffic Flow Management (Doc 9971).

Comment [SS2]: Propose delete. This is an adaptation of a Seamless ATM Plan principle, and does not add any additional value here.

Comment [SS3]: Moved here from 8.

Comment [SS4]: Added to take account that some States may opt in to the multi-nodal network without being part of a sub-regional network (discuss)

Comment [SS5]: Moved from 18

People: Aviation Regulations, Standards and Procedures

4. Regionally harmonized methodology for the continuous monitoring and declaration of airport and airspace demand and capacity, the dynamic updating and sharing of capacity information, and for daily post-operations analysis.
5. Prioritization of ATFM implementation for high density airports and the busiest city pairs and FIRs.
6. Demand and Capacity inputs from automated data feeds including ATM automation systems, ATN/AFTN, and from FMPs and FOCs using web-based manual ATFM interfaces.
7. The minimum necessary ATFM Measures applied, for the shortest necessary time period and only to operations at or in capacity constrained airports or airspace.
8. ~~Regional distributed multi-nodal network model of inter-connected sub-regional ATFM networks or State ATFM systems, based on system-wide CDM, serving the busiest terminal airspace and major sub-Regional traffic flows.~~

Comment [SS6]: Moved to 4.

9. Independent formulation of ATFM programs and measures by each ANSP for its own arrival airports and airspace sectors.

Pre-tactical and tactical coordination of airport and airspace capacity constraints and proposed ATFM programs and measures with all affected Stakeholder organizations, before the independent execution of the program or measure in the ATFM system of the responsible ANSP.

Comment [SS7]: Does not promote CDM, and does not promote understanding of impacts.

Discuss the proposed change.

10. Participation by at least 70% of aircraft operating in or to the constrained resource.
11. Aircraft operator options for delay absorption through the flexible distribution of total ATFM measure delay per aircraft to gate hold, surface hold and/or airborne delay.
12. Except in the case of flexible aircraft operator options for absorption of delay, separate ATFM measures should not be cumulatively applied to a flight.

Harmonized ATFM, runway sequencing (AMAN/DMAN) and A-CDM processes using common reference points and information exchange.

Comment [SS8]: Moved from 19 per ATFM/SG/4 discussion (grouped with 11 and 12)

13. Exemption from ATFM measures of emergency, humanitarian, declared medical evacuation, search and rescue, and Head-of-State flights, and other flights as determined by the State authority.
14. Direct coordination between aircraft operator and airport operator to determine maximum gate delay and surface delay.
15. Direct input of delay absorption intent into the ATFM system by aircraft operators.
16. Pilot-in-command responsibility for adherence to operational procedure for requesting speed, route or level changes where flexible delay option is exercised.
17. Continuous monitoring of compliance with ATFM measures, supported by procedures for the real-time and post-operational management of non-compliance.

~~18. Harmonized regional ATFM rules and guidelines based on the ICAO Manual on Collaborative Air Traffic Flow Management (Doc 9971).~~

Comment [SS9]: Moved.

~~19. Harmonized ATFM, runway sequencing (AMAN/DMAN) and A-CDM processes using common reference points and information exchange.~~

Comment [SS10]: Moved to (new) 13

20. Bi-lateral or multilateral agreements between stakeholders where necessary to support common business rules for departure, destination and en-route ANSPs, airport operators and aircraft operators.

Comment [SS11]: Further discussion was required (ATFM/SG/4). Proposed change to remove the need for bi-lateral or multilateral agreements with aircraft operators. Discuss.

Bi-lateral or multilateral agreements ~~between stakeholders~~ where necessary to support common business rules for departure, destination and en-route ANSPs, ~~and airport operators.~~ ~~and aircraft operators.~~

21. Development of manual processes and skills to promote practical knowledge and understanding of ATFM before implementing technology based solutions, and as a contingency response capability.
22. The use of high-fidelity simulators to train controllers and ATFM personnel in ATFM procedures and techniques.
23. ~~Consistency between the ICAO Regional Air Navigation Plan, Asia/Pacific Seamless ATM Plan and Regional Framework for Collaborative ATFM.~~

Comment [SS12]: Not really an ATFM principle

ATM Coordination

24. The prioritization of integrated AIDC systems for timely ATM and ATFM system updates of trajectory data, including preferred implementation of advanced AIDC messaging and configuration of systems for early delivery of AIDC messages.

Facilities: Aerodromes

25. Encouragement for aerodrome operators to actively participate in ATM coordination in respect of A-CDM development and operational planning, including aerodrome complexity and capacity.

ATS Units

Comment [SS13]: Deleted.

ATFM Systems

26. Collaboration by ANSPs for evaluation and planning of harmonized ATFM facilities.
27. Optimization of ATFM facilities through automated, networked, central flow management centres and units or equivalent virtual platforms.

ATFM Systems

28. Independent FMP/ATFM systems operated by each ANSP, connected to the sub-regional or regional ATFM network.
29. Continuous supervision, operation, adjustment, monitoring and executive control of ATFM systems and their output by ~~trained and competent~~ dedicated ATFM or designated ATC personnel.
30. ATFM communications via existing internet/telecommunications networks, or via the Asia/Pacific Common Regional Virtual Network when implemented.
31. Preference for relevant ATFM data and notifications from each ANSP, including slot assignments, distributed to stakeholders via web interfaces.
32. ~~ATFM processing system and communication network reliability, maintainability and availability commensurate with requirements for ATC operational platforms, surveillance and communications, supported by~~

Comment [SS14]: Deleted per ATFM/SG/4 discussion (USA comment): ATFM systems do not have the same safety-criticality as other ATC communications and surveillance systems. ATFM has a safety function, but it is not safety-critical.

~~agreed contingency procedures and communications facilities including ATN/AMHS and public telephone systems.~~

33. Collaborative development of ~~A-~~CDM, ATFM, AMAN and DMAN capability.
34. Encourage the real-time sharing of dynamic air traffic data relating to flights operating or intending to operate in civil-controlled airspace, between military ATM systems and civil ATM/ATFM systems.

Comment [SS15]: Omission fixed

ATM Modernization Projects

35. Inter-regional and sub-regional cooperation ('clustering') for the research, development and implementation of ATFM projects
36. ~~A focus on harmonized technologies for earliest deployment and best cost benefits.~~

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