



International Civil Aviation Organization

**The Twenty-Second Meeting of the APANPIRG ATM/AIS/SAR Sub-Group
(ATM/AIS/SAR/SG/22)**

Bangkok, Thailand, 25 – 29 June 2012

Agenda Item 4: Review outcome of relevant meetings

GLOBAL AIR TRAFFIC FLOW MANAGEMENT GROUP

(Presented by the Secretariat)

SUMMARY

This paper presents information on the meetings of an ad hoc Air Traffic Flow Management (ATFM) Group managed by ICAO HQ, which was tasked with the development of Global ATFM Guidance Material.

This paper relates to –

Strategic Objectives:

- A: *Safety – Enhance global civil aviation safety*
- C: *Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

- GPI-6 Air traffic flow management
- GPI-7 Dynamic and flexible ATS route management
- GPI-12 Functional integration of ground systems with airborne systems
- GPI-13 Aerodrome design and management
- GPI-14 Runway operations
- GPI-22 Communication infrastructure

1. INTRODUCTION

1.1 In late 2011, ICAO HQ instigated a short-term project on the important development of a Global ATFM guidance material, which was planned to be presented to the 12th Air Navigation Conference. This would be a coordinated initiative between ICAO HQ, the Regional Offices in Lima, Paris and Bangkok, and major ATFM stakeholders. The deliverable was expected to address:

- measurement of Air Traffic Management (ATM) capacity;
- development of airspace and ATM system design to improve capacity (consistent with the Aviation Safety Block Upgrade concept); and
- ATFM principles, tools, practices and recommended procedures.

2. DISCUSSION

ATFM Group

2.1 A small management Group of experts on ATFM was formed under the aegis of ICAO HQ to progress the ATFM guidance material. The States and organizations which provided participants for the group are:

- Brazil;
- Hong Kong, China ;
- India;
- Japan ;
- Russian Federation;
- Thailand ;
- United States of America;
- AENA (Aeropuertos Españoles y Navegación Aérea, Spain);
- CANSO/Metron Aviation;
- EUROCONTROL; and
- IATA.

2.2 The ATFM Group held a face-to-face meeting initially at Amsterdam, Netherlands on 5 March 2012. A visit to the EUROCONTROL Network Operations Centre (formerly the Central Flow Management Unit) in Brussels was also being arranged that week so members could have the opportunity to receive a briefing on leading ATFM practices in Europe.

2.3 Since then, Group members have been working by electronic means to develop individual chapters and supporting material for the draft guidance on ATFM. Key milestones are as follows:

- 28 September 2012: comments and updates of each chapter reviewed;
- 12 October 2012: finalize draft guidance material;
- 26 October 2012: Secretariat (ICAO HQ) review of draft material; and
- 19-30 November 2012: draft presentation to the 12th Air Navigation Conference.

Draft ATFM Manual

2.4 The expectation is that the document will be written in a plain language and cover the full spectrum of ATFM from simple procedures used in single Air Traffic Services (ATS) units to regional facilities, so it is applicable to everyone, independently of the traffic density. As the nature of ATFM required local solutions to fit each unique operating environment, the material would be written in a manner that provided a range of tools, procedures and recommended practices. This recognised a progression in capability from low traffic density units that only require simple ATFM systems, to high traffic density units requiring sophisticated ATFM.

2.5 The document would be consistent with the Aviation System Block Upgrades (ASBU) concept. Thus, Block zero (0) sets the stage for the current ATFM capability.

- 2.6 The document is expected to have numerous inter-dependencies, including, *inter alia*:
- The Collaborative Decision-Making (CDM) guidance material;
 - ATS Inter-facility Data-link Communication (AIDC) operations;
 - Performance-based Navigation (PBN) - airspace design;
 - Flight and Flow Information for a Collaborative Environment/System Wide Information Management (FF-ICE/SWIM);
 - Civil/Military Cooperation; and
 - ATM Training.
- 2.7 In order to harmonise with current global practices, the *Asia/Pacific ATFM Concept of Operations* and *ATFM Communications Handbook for the Asia/Pacific Region* were included into the draft ATFM guidance material, along with material from other regions. Thus there would be no need to retain these documents after the Global ATFM guidance material has been published if the material has been subsumed within the new mentioned guidance.
- 2.8 The draft Table of Contents currently contains the following headings:
- EXPLANATION OF TERMS
 - ABBREVIATIONS AND ACRONYMS
 - EXECUTIVE SUMMARY
 - 1.1 INTRODUCTION
 - Air traffic flow management philosophy
 - Air traffic flow management pre-requisites
 - Air traffic flow management benefits
 - 1.2 AIR TRAFFIC FLOW MANAGEMENT OVERVIEW
 - 1.2.1 Operations performance planning and management
 - 1.2.2 Air Traffic Flow Management characteristics
 - 1.2.3 Air Traffic Flow Management Principles
 - 1.2.4 Collaborative Decision-Making Objectives and Principles
 - 1.2.5 CDM Requirements and Benefits
 - 1.2.6 CDM Organization and Structure
 - 1.2.7 Global CDM Resources
 - 2.1 ATFM SYSTEM PLANNING
 - 2.1.1 Determining ATFM Requirements
 - 2.1.2 Traffic Management Initiatives
 - 3.1 ATFM DEVELOPMENT STRATEGY
 - 3.1.1 ATFM System Preparation
 - 3.1.2 ATFM System Establishment
 - 3.1.3 ATFM System Operation
 - 3.1.4 Planning for Special or Unforeseen Events

- 4.1 INFORMATION EXCHANGE
 - 4.1.1 General
 - 4.1.2 International Data Exchange Standards
 - 4.1.3 System Eligibility for Data Exchange
 - 4.1.4 Connectivity Specifications
 - 4.1.5 Data Type Description and Harmonization
 - 4.1.6 Data Exchange Limitations and Regulations
 - 4.1.7 Allowed Data Usage
 - 4.1.8 Documentation
 - 4.1.9 Tools
- 4.2 COMMUNICATION
 - 4.2.1 Background
 - 4.2.2 Stakeholder ATFM Communication Structure
 - 4.2.3 Coordination of ATFM Information and Traffic Management Initiatives
 - 4.2.4 Exchanging ATFM Information
 - 4.2.5 ATFM Message Components
 - 4.2.6 Amendment
 - 4.2.7 Cancellation
 - 4.2.8 Operations Plan
 - 4.2.9 Civil/Military Coordination
- 5.1 POST-TACTICAL ATFM TASKS
- 6.1 REFERENCES
 - APPENDIX A: ATFM Communication Phraseologies
 - APPENDIX B: ATFM Training Information
 - APPENDIX C: ATFM Traffic Management Measures
 - APPENDIX D: ATFM Resources
 - APPENDIX E: Sample Data Exchange Agreement
 - APPENDIX F: Special Event Planning Examples

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
- a) note the information contained in this paper; and
 - b) discuss any relevant matters as appropriate.

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