



ICAO

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WORKING PAPER

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**Joint NAM/CAR Air Navigation Implementation Working Group (ANI/WG)/Air Traffic Flow Management (ATFM) Implementation Task Force Meeting (ATFM/TF)/
CANSO Air Traffic Flow Management Data Exchange Network for the Americas (CADENA) Regional Implementation Group Meeting (ATFM/TF/CADENA)
Santo Domingo, Dominican Republic, 22 - 24 January 2019**

Agenda Item 2: ATFM / CDM Regional Training

NAM/CAR ATFM/CDM REGIONAL TRAINING PROGRAMME

(Presented by the Secretariat)

EXECUTIVE SUMMARY	
This Working Paper presents a proposal for the ATFM Task Force to develop an ATFM Regional Training Programme.	
Action:	The suggested actions are presented in Section 5.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Economic Development of Air Transport• Environmental Protection
<i>References:</i>	<ul style="list-style-type: none">• ICAO Doc 9971 - Manual on Collaborative Air Traffic Flow Management (ATFM)• Caribbean/South American Air Traffic Flow Management Concept of Operation (CAR/SAM ATFM CONOPS)• Asia/Pacific Framework for Collaborative ATFM

1. Introduction

1.1 Managing traffic flows is a unique activity in civil aviation, insofar as it involves so many different actors with different, and sometimes conflicting, needs. An ATFM service is established to enable Air Navigation Services Providers (ANSPs) to effectively provide the required service based on the current and projected operational needs. An ATFM service which is properly designed and implemented delivers ATM performance benefits with organization, process, training, and automation matched to the operational need.

1.2 Initial implementations of ATFM were meant to manage air traffic demand where and when it exceeded capacity of Air Traffic Control (ATC) services. The modern concept of ATFM has evolved to facilitate the safe, orderly and expeditious flow of air traffic by not only ensuring that ATC

capacity is optimized and utilized to the maximum extent possible, but also allowing the traffic demand to be compatible with ATC capacity.

2. Training requirements: ATFM Training

2.1 An ATFM service should be staffed by personnel with sufficient knowledge and understanding of the ATM system they are supporting and the potential effects that their work may have on the safety and efficiency of air navigation. To ensure this and in line with their training policies, States and ANSPs should establish core training plans to educate the ATFM service staff in the importance of the availability, continuity, accuracy and integrity levels required for the services provided.

2.2 In addition to the staff of the ATFM unit itself, there are several other units/areas/entities where staff should be aware of and understand the ATFM services provided and the specific roles and responsibilities they carry in this process. Units where ATFM is exercised or directly experienced and where staff therefore needs training include:

- a) ATC;
- b) aircraft operators;
- c) pilots;
- d) airport operators;
- e) military, both service providers and users; and
- f) regulatory bodies (CAAs and equivalent).

2.3 An ATFM service is provided at different levels of responsibility, each with its own training requirements. These levels include operations management and supervision, and planning and execution of the service and essential support staff. In addition, there are different support functions, Collaborative Decision Making (CDM) partners and general ATM personnel who should be considered when developing training requirements.

Note. — Detailed guidance material has been developed within the Association of South-East Asian Nations (ASEAN) and is available as Appendix E of the framework document that can be found at Asia/Pacific Framework for Collaborative ATFM.

2.4 ATFM training can be divided into a number of phases.

- a) Ab initio training. This ensures that new ATFM staff possesses the necessary contextual knowledge to be able to follow the more detailed, job-related training.
- b) Basic training. The ATFM core and its associated operational topics are covered in a comprehensive fashion.
- c) On-the-job training. A substantial amount of practical application of the occupation is undertaken under appropriate supervision, in order to ensure that the acquired knowledge from the basic training course(s) can be applied in an autonomous manner. Advanced training. Advanced ATFM analysis and application techniques are studied.

d) Recurrent/Refresher training. This involves updating competencies on a regular basis, in accordance with the latest operational requirements, new methodology/technologies applied, and application of exceptional and contingency measures.

3. Personnel requirements for a Flow Management Unit

3.1 Establishment of an ATFM Facility, Flow (FMU), and/or associated FMP(s), requires careful human resource planning and training.

3.2 The Caribbean/South American Air Traffic Flow Management Concept of Operation (CAR/SAM ATFM CONOPS) describes the following structure for a Flow Management Unit, as required: FMU Manager/Chief, FMU Traffic Management Officer (TMO)/Supervisor and FMU Traffic Management Coordinator (TMC). For each position, the CONOPS describes duties and responsibilities. The Training Programme for ATFM should be in line with those responsibilities described in the CONOPS, and provide means to develop the competencies required to fulfil them.

4. NAM/CAR ATFM/CDM Regional Training Programme

4.1 The development of personnel with the necessary competencies to handle the implementation and operation of the ATFM is vital for the success of this process.

4.2 In the same way, it is important to agree on the set of requirements that these training must meet, so that we can make the best use of the available resources, and that the different regional entities, including the training centres, have a clear set of parameters that the training program of the ATFM must comply with, and also for each specific training.

4.3 Recently, the NAM / CAR Regions have received some sort of harmonized training, although provided by different institutions and based on different training programs. For this reason it is necessary that we can reach an agreement regarding the type of training required for each role of the ATFM system and the content of each training, so that all those involved can work on the basis of a regional agreement. This agreement should include the requirements for the personnel of civil aviation authorities, responsible for the supervision and surveillance of air navigation services.

5. Suggested actions

5.1 The Meeting is invited to:

- a) Request the ATFM Task Force to develop an ATFM Training Programme, including training requirements for each ATFM position.
- b) This Training Programme should include every level of training and objectives in line with ICAO TRAINAIR Plus Methodology.
- c) This Training Programme shall be included as an Appendix to the CAR/SAM ATFM CONOPS.