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**Fourth North American, Central American and Caribbean Working Group (NACC/WG) Aeronautical Information Management Implementation Task Force Meeting
(AIM/TF/4)**
Online, 11 May 2021

Agenda Item 6: **AIM 2.0 Training Requirements Official Documentation**

AIM 2.0 TRAINING REQUIREMENTS OFFICIAL DOCUMENTATION

(Presented by AIM/TF Rapporteur)

EXECUTIVE SUMMARY
This Working Paper presents the AIM TF recommended competence-based training plan for AIM staff: AIS, ARO and/or FPL personnel, including a Training curriculum.

Action:	Described in Section 5.
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency • Security & Facilitation
References:	• Annexes 2, 4, 6, 14 and 15 • Doc 8126 – AIS Manual • Doc 10066 – PANS-AIM • AIM QMS • Doc 4444 – PANS-ATM • ICAO Trainair Plus AIM Curriculum • Doc 8697 – Aeronautical Chart Manual • AIM Training Manual Draft • Doc 8168 – PANS-OPS

1.   Introduction

1.1   As presented in various previous meetings, namely the "First Aeronautical Information Management (AIM), Flight Plan (FPL) Error Management and Air Traffic Services Inter-facility Data Communication (AIDC), Meeting (AIM/FPL/AIDC/1)" held in Tegucigalpa, Honduras, from 30 October to 3 November 2017, within the AIM TF and during previous face-to-face meetings up to 2020.

1.2   Training of AIM staff: AIS, ARO and/or FPL personnel, is lacking or non-existent for various States, and no ICAO or State standardized training plan or training curriculum is in place.

1.3   Annex 15 indicates that it is necessary to identify the competencies, qualifications, skills and associated knowledge required for each AIM staff, and to provide proper training to the personnel assigned to perform such functions, for the implementation of the AIM within the context of the established quality management system.

1.4   The main objectives for the AIM Task Force (AIM/TF) was to finalize the developed training curriculum of the competence-based training plan. This was presented to the required authorities for the adoption to the regional and global implementation and is pending approvals.

1.5   The Curriculum is split into the following training sections:

Module 1.
Basic Training, which serves as a basic training session on Aviation & AIM staff functions, the related subjects, in the form of a foundation training (**Appendix –** Module 1), and

Module 2.
This section includes the Skilled Training section, which is a specialized and interactive training to the AIM staff: AIS, ARO and/or FPL personnel, once Module 1 is completed. This assures the related AIM (Appendix - Module 2a) and ARO/FPL functions (Appendix - Module 2b) are properly carried out and includes On-The-Job training as well after completion of the theory course.

1.6   Followed by CONVERSION TRAININGS. These training types remain an active part of the continuity in training to the AIM staff, namely: **SYSTEM & SPECIALIZED TRAINING**. This training type is based on implementation of new equipment and software related to the AIM staff functionality, such as: AIXM, AD Mapping, eCharting, e-TOD, Digital NOTAM and all other AIM staff, SWIM and IM platform related products etc. It should be carried out as soon as a new skilled will be needed to be implanted.

1.7   As a continuous part pa the AIM staff training, **REFRESHER TRAININGs** are recommended as well. This includes repeated training every two (2) years, based upon knowledge and/or performance gaps within the carried out AIM staff functions for ensuring the compliance of continuity in order to deliver with regularity AIM and ARO products safely, efficiently and timely. It can include On-The-Job trainings as well.

2. **Discussion**

2.1   Competence-based training and assessment will be based on a systematic approach whereby competencies and their performance criteria are defined. The training is based on the identified competencies, and assessments are made to determine whether competencies have been achieved.

2.2   Competence-based training and assessment may be provided by a training organisation or an Service Provider (ANSP), or a combination of both. Consequently, when determining the scope and depth of the Knowledge, Skills and Abilities (KSA) requirements of AIM and ARO/FPL personnel, it is necessary to analyse the duties and tasks required of them.

2.3   In general terms the competence-based training and assessment principles are as follow:
- Clear definition of relevant competencies.
- Common understanding of competence requirements.
- Competencies can be consistently taught, observed and assessed in a broad range of contexts.
- The training provider establishes clear performance criteria to assess competence.
- Evidence of competent performance is valid and reliable.
- Connection between competencies and training, required performance and assessment.

2.4   To meet the mentioned requirements above, the State's AIM staff can be divided into various functional areas of responsibility, such as i.e.:
- Aeronautical Information Services Office
- Aerodrome Unit, ARO/ FPL Office
- International NOTAM Office (NOF)
- Database Unit
- Publications/Editing/Text producing Unit
- Aeronautical Cartographic Unit
- Other etc.

2.5   Where pre-flight and post-flight services or AIM product services are combined with the ATS Reporting Office (ARO) or FPL Unit a number of additional AIM functions may be applicable.

2.6   Regarding Presentation 01 during the AIM/TF/3 meeting in 2020, the Secretariat recall to attendance several facts that ICAO has developed in association to the great challenge for the Transition from AIS to AIM since 2008 when Air Navigation Commission (ANC), created a specific Study Group for that purpose. That Group developed an initial guidance material the Roadmap for the transition from AIS to AIM.

a. The transition from AIS to AIM, implied new Documentation, Amendments to Annexes 15 and 4 and Documents 8126 and 8697, likewise the creation of new documents as QMS Doc 9839 (unedited), AIM Training Manual Doc 9991 (unedited) and the PANS AIM Doc 10066. It was emphasized that two fundamental documents are not edited at this time, in particular for this Agenda Item was mentioned the Doc 9991 require urgent attention in order to support not only the transition but the evolution to the AIM 2.0

b. Other aspect discussed was the ICAO Programme called Next Generation of Aviation Professionals (NGAP), oriented to Pilots, Controllers, Aircraft maintenance, but it was questioned to the Meeting what happened with AIM. In this regard was informed that the guidance material concerning training methodology to ensure the competency of personnel is contained in the Aeronautical Information Management Training Development Manual (Doc 9991) and in a new version of the PANS TRAIN (Doc 9868)

c. Additionally, the presentation mentioned about the dynamic evolution of AIM, first from AIS to AIM 1.0 now to AIM 2.0 with new requirements for the AIM Staff development model:

d. Training and assessment in AIM are characterized by performance orientation, emphasis on standards of performance and their measurement, as well as the development of training to the specified performance standards under a Competency Based Approach (CBA). The principle for this approach uses performance as the measurement to identify the opportunity for competency-based training and how it can address gaps in performance identifying the Competency attributes required to perform the AIM job: Knowledge, Skills and Abilities (KSA).

e. The Secretariat emphasized on the development of competency-based training and assessment is based on a systematic approach whereby KSA and their standards are defined and Performance is measured against the standards and

also Training is based on the gaps between the required competency and current performance.

f.   Finally, the Secretariat said that the combination of skills, knowledge and attitude required performing a task to the prescribed standard.

3.   Tasks carried out regarding AIM 2.0 Training Requirements Official Documentation

3.1   The AIM TF has created and introduced the official and standardized Training curriculum for the basic training and guided skilled training of AIM staff. The development of an AIM staff Standardized Training Curriculum and Manual, is beneficial for the personnel exercising their duties.

3.2   The competence framework created for AIM staff supports the establishment of a systematic approach, to provide a generic model that shall be adapted to the range of situations that exist at global level in AIM.

3.3   The following illustrates the **Summarized interpretation of the Training Module Curriculum**:

a. BASIC TRAINING ALL AIM STAFF – MODULE 1
- Duration: 1 – 4 weeks (excluding exam period).
- Progress tests are recommended at the end of each subject and an exam at the end of each module with a 70% pass rate.
- Briefing on the subjects in the form of basis training, in order for personnel to properly be introduced to AIM and ARO/FPL.
- Provide Basic training upon entry as an employee in the AIM and/or ARO/FPL unit. Subjects to be received are based upon the recommended list below, which include all or part of the following:
  - Aviation Legislation
  - Principles of Air Traffic Management
  - Aerodromes
  - Aircraft
  - Meteorology
  - Navigation

- ▪ Quality Management Systems
- ▪ Safety Management Systems
- ▪ Human Performance
- ▪ Equipment and Systems
- ▪ Charting/Cartography
- ▪ Airspace

b. SKILLED TRAINING – MODULE 2A AIS PERSONNEL
- Duration: 3 – 4 weeks theory (excluding exam period)
- OTJ between 2 to 6 weeks, depending on the employee's progress
- Progress tests are recommended at the end of each subject and an exam at the end of each module with a 70% pass rate
- Specialized & Interactive training in order to properly carry out the AIM function
- Provide skilled training upon successful completion of Module 1. Subjects to be received are based upon the recommended list below, which include all or part of the following:
  - ▪ Aeronautical Information Services
  - ▪ Aerodrome AIS Units
  - ▪ General Data Management
  - ▪ Static Data
  - ▪ Dynamic Data
  - ▪ Publications
  - ▪ Charting
  - ▪ AIS Functions
  - ▪ Coordination

c. SKILLED TRAINING – MODULE 2B ARO / FPL PERSONNEL
- Duration: 2 – 4 weeks theory (excluding exam period).
- OTJ between 2 to 4 weeks, depending on the employee's progress.
- Progress tests are recommended at the end of each subject and an exam at the end of each module with a 70% pass rate.
- Specialized & Interactive training in order to properly carry out the AIM function.
- Provide skilled training upon successful completion of Module 1. Subjects to be received are based upon the recommended list below, which include all or part of the following:
  - ▪ Aeronautical Information Services
  - ▪ ARO and Aerodrome AIS Units
  - ▪ Dynamic Data
  - ▪ Charting/Cartography
  - ▪ ARO Functions
  - ▪ Coordination

d. CONVERTION TRAINING – AIM STAFF
- Duration: depends on training given by vendor, related to the implemented new/changed/updated system or application
- May/can include or excluding exams
- May include OTJ

- Specialized & Interactive training in order to properly carry out the AIM function.

e. **REFRESHER TRAINING AIM STAFF**
- A refresher course is a training/workshop course in which the employees improve their knowledge or skills and learn about new developments that are relevant and/or related to the functions they carry out.
- Duration: 1 – 2 weeks theory (no exams/assessment required).
- Annual or at least every two years.
- Based on an analyses carried out on the employee by the State/Unit in order to inquire which needed subjects are to be refreshed in, and in addition conversion training refreshing with regards to the carried out tasks and functionalities.
- Interactive workshop/training in order to properly carry out the AIM and/or ARO / FPL function.

Note: Both modules 2A and 2B can be combined, depending on the setup of the State AIM and/or ARO/FPL unit!

4.   Conclusion

4.1   A standardized and same level training is more than needed due to the uniform method of functioning within the AIM industry. Even more, the high requirements of the PANS-AIM and expected knowledge and support from the AIM personnel on the delivered/published information, requires skilled professionals, who are able to interact with other AIM personnel at a same level and understanding.

4.2   Adoption of the training curriculum is recommended to States.

5.   Suggested Actions

5.1   Based on the above, the Meeting is invited to:

   a)   discuss any relevant matters as appropriate;

   b)   urge States to review the curriculum and provide comments for approval; and

   c)   have the AIM TF carry out needed tasks.

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