



# ICAO

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**Fifth NAM/CAR Civil Aviation Training Centres Working Group Meeting (NAM/CAR/CATC/WG/5)**  
San Salvador, El Salvador, 28 to 30 May 2019

**Agenda Item 5: Identification and Analysis of Training Needs in the NAM/CAR Regions for 2019-2021**

**5.1 Analysis of the optimum mechanism for the identification of training offer in CATCs who are part of the NAM/CAR/CATC/WG**

**ANALYSIS OF THE OPTIMUM MECHANISM FOR THE IDENTIFICATION OF TRAINING OFFER IN CATCS WHO ARE PART OF THE NAM/CAR/CATC/WG**

(Presented by COCESNA/ICCAE)

**EXECUTIVE SUMMARY**

This paper intends to start an exploratory analysis about the real conditions of the aeronautical training offer, this within the framework of the Fifth NAM/CAR Civil Aviation Training Centres Working Group Meeting (NAM/CAR/CATC/WG/5), with the objective of jointly constructing a mechanism that allows, under a comprehensive approach, complementation and collaboration, to establish a solid system to meet the needs of instruction on a regional basis; in order to optimize the specific competences and capabilities of the CATCs, in accordance with the strategic guidelines of each entity and the principles that govern the aeronautical industry; as well as action in the resolutions of the general NAM/CAR.

**Action:**

As indicated in section 6.

*Strategic Objectives:*

- Safety
- Air Navigation Capacity and Efficiency
- Security & Facilitation
- Economic Development of Air Transport
- Environmental Protection

## **1. Introduction**

1.1 In the present context of permanent and increasingly vertiginous changes, intervening or reducing the uncertainty of the environment has become fundamental. All the organizations, companies, state apparatuses, workers' unions, and international organizations, are obliged to review both the aims and their respective missions in order to fulfil their role.

1.2 The scope of aeronautical training does not escape this general scenario. Like the rest of the organizations, the change acceleration in all the orders of social and technological life, requires a re-consideration of both its aims and its modes of structure and operation.

1.3 The CATC'S as training agents are assigned with a leading role in both the driving force of competitiveness and the transformation of productive processes, as well as in their condition regarding to the instruction according to the technological evolution in the aeronautical industry, all in a complex context of scarcity of resources and means and challenging labor conditions for aeronautical personnel.

1.4 In this context, and within the framework of the Fifth Meeting of the NAM / CAR Working Group, it is considered necessary to promote a comprehensive debate about the system for the determination and management of the training offer, which allows not only to define the current and future scenario, but also identify areas for improvement and propose actions aimed at its continuous development with a five-year outlook.

## **2. Background**

2.1 Despite the progress that has been made in labor matters, globally there are still large imbalances that reflect that employment does not expand fast enough to satisfy the growth of the labor force.

2.2 Strategies are required to face the new challenges of modernization, which implies planning, structuring and monitoring formation and training plans that provide knowledge, skills, commitment and well-being to aeronautical workers to implement them as a tool in achieving efficiency.

2.3 The training must be designed to detect changes, identify the needs that arise from these and define a strategy to address them according to the particular objectives of each country and even the region. Training should be understood as a continuous process, aimed at providing knowledge and developing skills to improve performance and life quality at work, key factors that allow an institution to achieve its objectives.

2.4 Capturing and training the next generation of aviation professionals is one of the most immediate issues of concern, ICAO initially launched the program: the New Generation of Aviation Professionals -NGAP- in 2009 to address the anticipated lack of professionals of aviation. This is linked to various initiatives including the TRAINAIR PLUS Program and the ICAO Training Policies 2016-2019, in a common effort to meet the projected demand according to the ICAO projections to 2030, of the new generation of aeronautical professionals.

### **3. Problematic**

3.1 Strategies are required to face the new challenges of the modernization of the CATC'S, which implies planning, structuring and monitoring formation and training plans that provide knowledge, skills, commitment and well-being to the aviation employers to implement them as a tool in achieving effectiveness and efficiency.

3.2 Training is a complex activity that needs to be focused from a strategic management perspective, so it cannot continue be conceived as an isolated effort of an entity, focused on the definition of courses and training organizations and the selection of participants, without real relation with the other actors of the process.

3.3 This phenomenon has several consequences for the annual training plans. In the first place, the curricula as they have been traditionally conceived have a very short useful life. It is no longer possible to think that they can be valid for several years. Nor does it make sense to try through them, to make a selection of the state of knowledge in the different areas or disciplines. Thus, curricula tend to be increasingly thought of in terms of skills and capabilities that aviation employees must develop, one of which is precisely the ability to search and process information.

3.4 In the same way, training for the exercise of instruction is affected. Useful life of the knowledge acquired by the instructors is limited. Therefore, there is a double risk of teaching obsolete knowledge and doing it in a way that has also been overcome by new technology, regulations or other updates. Hence the challenge of having mechanisms that allow the permanent updating of the aeronautical instruction offer.

3.5 The lack of a collaborative support instrument among the CATC's that allows to know the main activities in an orderly and systematic way to offer training courses, limits the conduction in the update of knowledge and acquire new ones. The reality is that it would be worth eliminating paradigms, such as competition among themselves, segregation segregated or specialized failing. The development of strengths within each center, could allow joint preparation projects, while avoiding duplication and resources.

3.6 Conflicts of interest can be another limiting element in the CATC's since an effective, independent and impartial initiative can be hindered and thus create risks for aviation safety and security.

#### **4. General Description**

4.1 The purpose of this note is to propose an opening debate that will generate the most acceptable mechanism for the determination and management of the training offer of the CATC'S members of the NAM / CAR / CATC / WG, including the main transformations that are taking place in the world and its implications for instructional systems. In this sense we will try to trace a series of steps to rethink the ways of organizing and driving these systems.

4.2 The appropriate linkage with the diagnosis of training needs as a systematic investigation, under an appropriate methodology that admits to acquire and integrate the necessary information to guide the preparation of the annual training plans and establish the type of actions to follow.

4.3 The optimal mechanism for the identification of the offer of instruction involves: the projection of continuous improvement, execution of technological systems for the management of relevant aviation data in the region, government forecasts on aviation, needs assessment data. As well as the data generated from new learning technologies such as online teaching, artificial intelligence, augmented reality, gamification, among others.

4.4 The purpose of the registration of the instructional activities is to maintain basic and expedited information on all the background information of the process, which will allow decision-making to be improved and to determine management indicators that will make possible to evaluate the policies undertaken in this area, by multiplying the instances of encounter and horizontal exchange within the system.

4.5 The fundamental stages of a mechanism in this area are:

- a) Validation of the importance and impact of training in the field of civil aviation and in the development of the air transport industry at the regional and international level.
- b) Contrast the offer of regional training in the aeronautical environment of NAM / CAR / CATC / WG to validate a broad and clear instruction scenario of training management.
- c) Determine the importance of the role of the CATC's members of the NAM / CAR / CATC / WG and their potential to maintain a solid and integrated system of regional training in the aeronautical environment, thus guaranteeing an approved and continuous alignment.
- d) Propose the general scheme for the implementation of a new model of offer management, which enables the systematic generation of instruction to meet the growing demand of the industry and the strengthening of the CATC's based on improvement and development plans investment.

## **5. Conclusions**

5.1 The information presented in this note constitutes a basic reference for its corresponding analysis.

5.2 It is important to study and propose the mechanism that makes possible the involvement of all interested parties, in the implementation of this initiative on a regional platform.

5.3 It is also critical to identify the possible formation of strategic alliances with organizations related to the aeronautical industry; and also, with international co-operators to consolidate the offer of aeronautical training on a regional basis.

## **6. Suggested Action**

6.1 Meeting participants are invited to:

- a) take note of the contents of this working paper;
- b) review the aspects contained in the conclusion part presented in numeral 5; and
- c) consider any further action for the determination of the line work flow in this Study Noted.