



# ICAO

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WORKING PAPER

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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**
- 5.2 Study for the establishment of the ideal method to determine training demand in the NAM/CAR Regions**

**STUDY FOR THE ESTABLISHMENT OF THE IDEAL METHOD  
TO DETERMINE TRAINING DEMAND IN THE NAM/CAR REGIONS**

(Presented by COCESNA/ICCAE)

**EXECUTIVE SUMMARY**

This paper presents the initiative that is being promoted in the framework of the Fifth NAM/CAR Civil Aviation Training Centres Working Group Meeting (NAM/CAR/CATC/WG/5), according to the evolution of the industry of aviation, and to systematize the study of the demand for training, on the regional basis, to seek a debate on the definition of an acceptable methodology, to facilitate the identification of training needs in the aeronautical field, according to the analysis of the Current conditions and opportunities in the NAM / CAR region, of specialized technical training for a five-year horizon.

<b>Action:</b>	As indicated in Section 6 of this working paper.
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Security &amp; Facilitation</li><li>• Economic Development of Air Transport</li><li>• Environmental Protection</li></ul>

## **1. Introduction**

1.1 The starting point for the study of the aeronautical training needs is the existence of present and future problems in the industry, which are originated by the modification of strategies, procedures, technologies, improvements in administration, ineffective policies, or when they are due to deficiencies in the knowledge skills or inadequate attitudes of the personnel.

1.2 The trends of the training raise innovation processes, which lead to the improvement of human resources quality and, therefore, to the achievement of the objectives of the aeronautical industry. The task of the CATCs focuses on analysing and addressing the problems of their environment, determining alternative solutions, as well as anticipate and guide their efforts to meet current and future needs.

1.3 The CATCs have the responsibility to act as change managers, since having the right means will generate the capacity to establish solutions, in order to strengthen the knowledge, skills and attitudes of the industry's personnel; This way the excellence of these organizations is sought to guarantee the quality of the instruction and the application of norms and recommended methods. In order to direct the training process with effectiveness, opportunity and quality, it is essential to satisfy the needs of the aviation sector that contributes to the achievement of the objectives established in the different world plans promoted by ICAO and the signatory countries of the Chicago Convention.

1.4 COCESNA through the Central American Institute for Aeronautical Training - ICCAE, has expanded its role as Regional Centre of Instruction for Excellence in recent years has allocated important resources and innovation in formation and training, both for the Civil Aviation Authorities of the Member States, and the Operating Units that comprise it; also including North America, Central America and the Caribbean, as well as other international organizations.

## **2. Background**

2.1 In a globalized world, the productive components are made day by day with greater expertise, with high financial investments in research, development and innovation. The aviation sector is not unaware of this, and, therefore, is constantly required The training of human resources in cutting-edge technologies, and in projects of high added value, which generates a challenge for the institutions of the region in charge of the formation and training of these personnel.

2.2 The International support has been a determining factor in the progress of civil aviation in the different ICAO regions; particularly in the case of training, both the Regional Office of Mexico and the Central Unit TRAINAIR, as well as the Office of Technical Cooperation of that organization, have played a leading role for a large number of aeronautical training centers to meet the program , under the two fundamental pillars in terms of training in seeking to standardize courses, as well as establishing cooperation networks.

2.3 In the field of aeronautical training and in accordance with the Strategic Plan, it is important to emphasize the mandate of the Honourable Directing Council of COCESNA, to support the strengthening of the Central American Institute for Aeronautical Training (ICCAE) as a regional training centre, with high levels of competitiveness and excellence, which has made it possible to provide continuous learning opportunities, with a management model, of integrated training that allows serving and offering services to areas of the varied and new civil aviation subsystems.

2.4 The ICCAE / COCESNA model has driven, under a regional vision, innovative initiatives with valuable development potential, to meet the needs and expectations of customers, users, Member States, regulators and other interested parties; In this regard, regarding the diagnosis of training needs as the core part of the process, this model could be an important reference for determining its own at the NAM / CAR region level. The information of the actors of the industry will constitute the indispensable antecedents to successfully plan, elaborate and apply the corresponding programs of demand of qualification.

### **3. Problematic**

3.1 The requirements of the aeronautical industry are increasing day by day, in the face of changing technology scenarios, since at present it has not been possible to establish the mechanism capable of surveying data integration and interpretation, which allows an appropriate dimensioning of the demand at the national and regional level.

3.2 The complexity of the industry in general, as well as the particular conditions of each country or region, makes the demand difficult to analyse at the level of the different subsystems of civil aviation on a broader scale such as the NAM / CAR region.

3.3 Appropriately defining the creation and management of a statistical, standardized and systematized base of information on studies of needs and requirements, is the key to proper technical training, however, at this time it is not available, which limits the comprehensive analysis of the demand on a regional platform.

3.4 Another strong and challenging training problem is to reduce the gap by integrating an automated system that provides inputs from other sources, such as: deficiencies in the instruction detectable in ICAO audits, specific plans, industry studies, etc.

3.5 One of the main responsibilities of the CATC'S is to anticipate the changes by anticipating future training demands, and to do so according to the trends and needs of each country and / or region, for that reason, since there is no strategic planning of personnel, that allows to project the demand and the programs of short, medium and long term that entail to a horizon of five years, is another of the most immediate challenges and of current limitations.

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

4.1 The diagnosis of training needs is a systematic investigation, carried out through a proven methodology to acquire and integrate the necessary information to guide the preparation of the annual training plans and establish the type of actions to be followed for the medium and long term.

4.2 Thus, this document is presented as an important input that seeks to generate the debate, necessary to define a line of action aimed at the purpose of making a diagnosis of labour demand in the aeronautical sector in general, which currently has a great influence on economic activity throughout the world.

4.3 The method should have a minimum of the following components:

- Regulation revision (Regulations, Technical Standards, Aeronautical Regulations, Legislation, Complementary Requirements)
- Demand analysis in training: which characterizes the demand from the training actions that are planned, its subject matter (classified in thematic contents, skills and management), costs, number of people trained, among others. This from the elaboration of surveys, with the following matrix:
  - Develop and carry out a survey to determine the labour demand (total and future), characteristics and training needs of the aeronautical industry in the region.
  - Based on the results, identify the demand of the industry to promote the formation and training of young people that corresponds to their potential and the context of the labour market
  - Validate the study and the results at the level of the actors participating in the industry.
- Implementation of a Training Intelligence management, where the systematized information will be analysed according to the determined variables where it has a model that constitutes the mandatory reference for this initiative.

#### **5. Conclusions**

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

5.2 It is key 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; as well as with international co-operators to undertake the study of the demand for aeronautical training on a regional basis.

**6. Suggested Action**

6.1 The participants of the meeting 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; y
- c) consider any other action that is considered for the determination of the line of action to follow in this NE.