



ASSEMBLY — 40TH SESSION

EXECUTIVE COMMITTEE

Agenda Item 25: ICAO Civil Aviation Training and Capacity Building

MANAGEMENT MODEL OF AERONAUTICAL TRAINING IN CENTRAL AMERICA

(Presented by the Member States² of the Central American Corporation for Air Navigation Services (COCESNA))

EXECUTIVE SUMMARY

The purpose of this working paper is to inform the Assembly of the management model on aeronautical training in Central America, which initially emerged as an initiative to meet the training and instruction needs in air navigation and, over time, it was extended to the field of Operational Safety of COCESNA's Member States. In addition, the model has been extended to the training of specialists from institutions and related entities (i.e. airlines, airport operators, maintenance organisations, and others). For these purposes, the Corporation has the Central American Institute for Specialised Aeronautical Training (ICCAE), where a regional platform for training, technical assistance and technological services is available. All this with reference to the Next Generation of Aviation Professionals (NGAP), the International Civil Aviation Organization's (ICAO) Civil Aviation Training Policy, the TRAINAIR PLUS Programme, the trends and projections of civil aviation by 2030, as well as national regulations.

Action: The Assembly is invited to:

- a) take into consideration the content of this working paper;
- b) assess the extrapolation of the Central American training management system to other ICAO regions;
- c) promote the cooperation initiative and/or strategic alliances for the institutional strengthening of civil aviation training centres; and
- d) encourage the implementation of training management intelligence systems at a regional and global level.

<i>Strategic objectives:</i>	This working paper relates to the Safety Strategic Objective.
<i>Financial implications:</i>	It does not require resources as it is financed under a self-sustaining approach.
<i>References:</i>	Annex 1 — <i>Personnel Licensing Training Development Guide, Competency-Based Training Methodology</i> (Doc 9941) Global Air Navigation Plan 2016-2030 (Doc 9750-AN/963) Global Aviation Safety Plan 2020-2022 Global Aviation Security Plan, First Edition, 2017 (Doc 10118)

¹ English and Spanish versions provided by COCESNA.

² Belize, Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

1. INTRODUCTION

1.1 The Central American States, with a clear vision of the future and the commitment to comply with the obligations assumed in the Convention on International Civil Aviation (Chicago, 1944), resolved in 1960 to establish a Regional Intergovernmental Organisation Specialised in Air Navigation, with capacity and enough resources to face the challenges derived from the modernisation of aviation at that time.

1.2 Thus, the Central American Corporation for Air Navigation Services (COCESNA) was created to raise safety levels, avoid duplication of efforts, and promote cooperation. In 1998, the creation of the Central American School of Aeronautical Training (ECCA, for its acronym in Spanish). Today, it is known as the Central American Institute of Aeronautical Training (ICCAE), which gives rise to the management model of regional training.

1.3 From its origin, the management model of aeronautical training was based on an integration and cooperation approach to manage the training of professionals working in the technical, operational, administrative and managerial areas of COCESNA, the Civil Aviation Authorities (CAAs) of the region, as well as other entities from the isthmus on a sustained and sustainable regional platform.

1.4 The foregoing is in line with the present and future scenario of air transport, as well as the new requirements for safety and air navigation, which are reflected in the Regional Operational and Global Safety Plans for Air Navigation. This required significant efforts and investment of resources by Member States, particularly in terms of personnel training, infrastructure improvements and technology implementation, as well as the installed capacity in line with the objective of ensuring the relevance and quality of training according to the annexes, ICAO standards and recommended practices.

1.5 By having an efficient aeronautical training management model, the results generate a positive impact on the development of operations, which is evidenced in the last ICAO Universal Safety Oversight Audit Programme (USOAP) audit, whose results place the COCESNA Member States at higher levels of compliance than the average. This is due to the high degree of specialists from different areas of the Member States.

1.6 Among the benefits of having an Integral Training Management System administered by a regional training centre, such as ICCAE, the following is highlighted:

- a) support and recognition of processes and training plans;
- b) convenient cost-benefit ratio;
- c) flexibility in the rendering of services;
- d) design of tailor-made courses;
- e) standardisation of training; and
- f) promotion of collaboration networks (networking).

1.7 The system is based on an effective coordination and work of all institutions based on the determinant of training needs, planning of common and specific courses on a regional basis, budget optimisation, the scheduling of events, evaluation of instruction and impact in performance.

2. REFERENCES

2.1 The development of the Management System of Aeronautical Training for Professionals of the Air Transport Industry in the Central American Region has as a frame of reference, the contribution of various initiatives, such as: the Next Generation of Aviation Professionals (NGAP), the TRAINAIR PLUS Programme (TPP) based on standards, such as the ICAO Regional Training Centres of Excellence (RTCE), and the analysis of training needs in the aeronautical field with a 2030 projection of demand.

3. GENERAL DESCRIPTION

3.1 As for present and future scenarios of air transport and the new requirements in safety, according to the Operational and Global Safety Plans of Air Navigation, and Aviation Security (AVSEC) effort, an investment of resources are required from the States and Member Organisations regarding staff training, improvements in infrastructure and technology.

3.2 The adoption of the competency-based approach has forced the industry to modify the teaching-learning design, which demands to update the curriculum, methodology and teaching material, which implies the development of instructional objectives, contents, materials and use of support team in instruction, according to labour/professional performance standards.

3.3 The system also allows identifying initiatives or improvements to deliver training in different modalities besides face-to-face: In Company, continuous training, b-learning, e-learning, etc. achieving greater geographic coverage, expanding the target population, optimising economic resources, and closing language gaps and individualised attention through the application of technology.

3.4 The training management system has a substantial impact on compliance with the requirements for the licensing and certification of the operational safety of COCESNA's Member States. Here, it should be noted that the global average and relevant behaviour of the activities of ICAO Member States, particularly Critical Element 4 (qualified technical personnel), has the greater discrepancy at world level. Currently, the world average is 66.09% and the States of the Central American Region surpass this average with 85.56% (i.e. a difference of 19.6 points above the average).

3.5 ICCAE participates in ICAO's TPP, with recognition as an RTCE, in response to the strategic planning of human talent development established by the CAAs of the Member States of COCESNA and the aviation community to guarantee they have access to a sufficient number of qualified and competent personnel to operate, administer and maintain the current and future air transport system, in accordance with established international standards.

3.6 As part of the process of monitoring and analysis of customer satisfaction, the results obtained in the organisations and participants in 2018 are reported. The satisfaction index of the participants remains stable; it was possible to reach 94.03% by 2018. Moreover, the appraisal of instructors obtained 96.06%, content and didactic material got 93.78%, and applicability of the course to the job received 98.40% (all with levels above 90%). The perception of the organisations on the quality of the service delivered by ICCAE is excellent, and goals are met in all variables with a global index of 90%.

4. **CONCLUSION**

4.1 Within the framework of the regional education management model, this comprises a consistent, comprehensive and methodical proposal for training and development of specialised technical skills, thus generating enough and timely skilled labour, and enhancing their incorporation to the productive sector with the necessary skills.

4.2 The development of the education management system has been possible given the support of the Member States, the technical assistance of ICAO, and the establishment of strategic alliances with institutions related to the aeronautical industry that have an impact on the strengthening of training of the regional aviation industry, thus allowing more people to train, and an excellent cost-benefit ratio per participant. Additionally, it has contributed to highly specialised training in the region, which is consistent with the NGAP objectives and, given the similarity with countries in the region, its extrapolation and applicability for the rest of Latin America, as well as other ICAO regions.

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