

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**  
**FIRST MEETING OF DIRECTORS OF CIVIL AVIATION OF THE**  
**CARIBBEAN REGION (CAR/DCA/1)**

(Grand Cayman, Cayman Islands, 8-11 October 2002)

**Agenda Item 5:            Human Resource Planning and Training**

(Presented by the Secretariat)

**SUMMARY**

This working paper presents for the Meeting's discussion the required human resources planning and training in order to accomplish and maintain an efficient transition towards CNS/ATM systems and the development of safety oversight and civil aviation security systems.

**1.                    Introduction**

1.1                The transition towards CNS/ATM Systems represents a major change within the global aeronautical activities. Its main objective is to establish a safe and efficient air navigation system worldwide. In order to carry out this transition with the highest level of efficiency, it is most important that States give priority to development of human resources, in order to allow Aeronautical Administrations to take the necessary measures to plan such resources and to provide these services with a sufficient number of skilled personnel.

1.2                Likewise, the requirements to establish regional safety oversight and aviation security systems, entail the need to plan human resources with the same characteristics mentioned above.

1.3                When considering the global tendencies that air navigation has in the change and implementation of new technologies, it is important to acknowledge the challenges that the international aeronautical community faces. The diversity of concepts in which the CNS/ATM systems are based, demands developing a planning policy that focuses on timely human resources training. This is one of the most important elements for a harmonized transition. Furthermore, the necessary steps to develop the Global Aviation Safety Plan (GASP) as well as the measures taken for Aviation Security (AVSEC) equally demand a policy based on human resources planning.

## 2. Discussion

2.1 The Air Navigation ICAO Technical Programme, which is carried out by the Air Navigation Commission, includes, as one of its most important tasks, the determination of the ***“regional needs for human resources planning and training”***. When approaching this task, the Commission mentions that the Planning and Implementation Regional Groups (PIRGs) frequently report as important reasons for the lack of implementation of the air navigation regional plans, the deficiencies found in the planning, implementation and training of human resources. The problem increases with the progress of the CNS/ATM systems implementation. Also, the available information related to the repercussions that CNS/ATM systems have in the assignments carried out by the civil aviation personnel, is limited and incomplete.

2.2 On the other hand, when analyzing the “Reporting Form on Air Navigation Deficiencies in the CAR Region”, which was reviewed by GREPECAS, it is assumed that the lack of human resources planning and the lack of proper training, are frequently the sources of the deficiencies found in the Region.

2.3 The purpose of the Commission’s (ANC) task is to develop a model for the planning of human resources planning and training and guidance material, in order to use it at a regional level. It should be also determined if the results of the human resources planning and training regional process are to be included in the air navigation regional plans. While the material is being prepared and in order to make progress on the subject, the GREPECAS adopted Decision 10/4 *“Approval of Sections II and III of the Guidance Manual for the Training of Human Resources on CNS/ATM Systems”*; this Manual has been translated for its corresponding distribution to States. (**Appendix A** to this Working Paper)

2.4 Within the measures taken to make progress on this issue, a Human Resources Subgroup was created by GREPECAS. This contributory body has the task to analyze human resources development; and to propose actions for the proper implementation of the requirements contained in the Air Navigation Regional Plan of the CAR and SAM Regions, taking into account the human resources technical/professional training needs. Ironically, due to the lack of human resources in the ICAO Regional Offices this Group has not been able to initiate its activities.

2.5 Likewise, some of the activities addressed for human resources planning and training for the CNS/ATM systems operation, have been promoted through the Technical Co-operation Project UNDP/ICAO RLA/98/003 ***“Transition to the CNS/ATM Systems in the CAR/SAM Regions”***. To this end, a survey was circulated to those States whose areas of responsibility include a FIR, in order to determine the status of human resources planning and training, focusing on the ATM and CNS fields. This survey, which has not been answered by most Administrations, is a guide to help and assist States in the human resources planning.

## **2.6 Human Resources Planning and Training**

2.6.1 Human resources planning has a direct effect on training as they complement each other; therefore the determination of the training demand is one of the elements of this planning.. Considering this, it is foreseen that in the case of air navigation, training will have its greatest intensity during the transition phase, since it will operate both current systems and new systems simultaneously. This requires double effort to maintain personnel's competence both in the current and in the new technologies. The compliance with the human resources and training requirements during this transition phase should be the main point of the regional and national implementation plans.

2.6.2 In order to implement the new systems, Administrations should initiate a human resources planning and training process by considering the paragraph above and keeping in mind that the human resources objective is to guarantee that Aeronautical Administrations have the necessary personnel at the moment it is required, in the amount that it is needed and with the necessary training. Currently, in many States of the Region, responsible air navigation units do not have personnel qualified in human resources planning, therefore it is important to designate and train the personnel who would have the responsibility for the human resources planning.

2.6.3 Even though this working paper is focused on human resources development in the air navigation services, human resources in all civil aviation areas, such as safety oversight and civil aviation security, should be looked at with the same emphasis and importance.

2.6.4 For a better understanding of this issue, some of the factors to be considered in the preparation of a human resources plan are hereby listed:

- audit the existing levels of personnel;
- project the needs of the personnel (all categories);
- plan the required human resource in the different services;
- determine the effect that automation and new systems cause;
- plan projects for the transition and implementation of new systems;
- plan the human resources training with a quality assurance focus (QA);
- review the selection criteria and personnel qualifications;
- plan the preparation of new instruction programmes;
- plan the instructor's training in new techniques;
- review the personnel's current training and to plan the future training;
- review, if necessary, the organizational structures and to update them to the new needs;
- review the aeronautical technical personnel tasks and functions; and
- determine if the new systems will create new work disciplines.

## **2.7 TRAINAIR Methodology (International Co-operation)**

2.7.1 In 1990, ICAO created the TRAINAIR programme in order to improve training in civil aviation. The programme offers a framework to coordinate and harmonize the preparation of training. The use of this methodology guarantees that TRAINAIR courses, which are prepared in Standardized Training Packages (STP) by the Training centres who are members of the programme, can be shared and used on a global basis. This practice has allowed for international co-operation, which allows members to buy the Standardized Training Packages (STP) at a very low cost.

2.7.2 As this paper calls the attention of those States who are not yet a part of the TRAINAIR programme, that participation in this programme is open to all the training centres who are recognized by ICAO. It is important to mention that the TRAINAIR methodology evaluates the human resources planning and training needs.

2.7.3 For the Meeting's information, the following Training Centres in the CAR Region have recently joined the TRAINAIR programme: COCESNA, Cuba and Barbados. In the case of COCESNA and Cuba, several programmes of bilateral co-operation have been carried out; which is a projection of mutual help that all Aeronautical Administrations should consider.

2.7.4 A coordinated and regional cooperation focus towards the human resources planning and training in the CAR Region would help to accomplish all objectives in normalizing training on a regional level and to prepare the required personnel by all States. In this regard, it is important to mention that several Training Centres in the CAR/SAM Regions have been meeting since 1997 in order to standardize the civil aviation instruction.

2.7.5 General information on courses available in the CAR Region CATCs is presented in **Appendix B** of this working paper.

2.7.6 Taking into consideration the TRAINAIR methodology, the ICAO Technical Co-operation Programme is another means available for developing co-operation projects which contribute in the human resources planning and training of regional civil aviation.

2.7.7 Additionally, it should be noted that IATA has greatly contributed to these efforts offering its Training and Development Institute courses to Aeronautical Administrations and users in general.

## **2.8 Training activities carried out in the CAR/SAM Regions**

2.8.1 Detailed training activities scheduled for 2002 in the CAR/SAM Regions are presented to the Meeting in **Appendix C** to this working paper. The purpose of this information is to note that some activities aimed at training and updating aeronautical personnel are scheduled annually, but unfortunately, due to lack of participation by States in the Region, the expected results have not been achieved. Administrations are not taking full advantage of these training opportunities. The attention of the aeronautical administrations is drawn to the fact that these activities are scheduled to offer other sources of training.

2.8.2 In respect of the above, this year three courses in the AVSEC area have been scheduled in Trinidad and Tobago, 11-20 June (AVSEC Management Course), 10-17 September (AVSEC Instructors Course), and 19-26 November (AVSEC Supervisors Course). Unfortunately, sufficient States/Territories did not indicate interest in participating despite several reminders and the courses were cancelled. Other training opportunities offered in the Region, Barbados ATS Training School for example, have also not been utilized.

2.8.3 A source for planning training activities is the ICAO Training Directory, published annually and distributed to States by ICAO, and is included in the ICAO WebPage <http://www.icao.int/td>. This Directory includes training opportunities offered by different Civil Aviation Training Centres at the international level.

### **3. Conclusion**

3.1 Aeronautical Administrations have not given human resources planning and training in civil aviation the proper attention and the priority that it deserves. The need for adequate planning for the development of human resources is basic in determining the number of personnel that should be trained and the training needed in the different areas and categories. The challenge of applying new technologies demands double effort in these areas, so that the trained human resource makes the implementation of the new systems easier; taking into account that the human element is one of the most important components in a quality system.

3.2 Based on the above the following draft conclusions are presented for the Meeting's consideration:

#### **DRAFT**

#### **CONCLUSION 1/XX**

#### **HUMAN RESOURCES PLANNING AND TRAINING**

That those States/Territories that do not have a human resources planning process for air navigation services, safety oversight and civil aviation security, consider, on an urgent basis, the need to take the following measures:

- a) appoint and train personnel in human resources planning within the units responsible for the different aeronautical services;
- b) develop a human resources plan for the next five years, containing a civil aviation personnel training programme including the implementation and operation of the new CNS/ATM Systems, safety oversight and civil aviation security;
- c) follow-up GREPECAS Decision 10/4 to analyze the "impact of automation on human resources" in accordance with the Guidance Manual for the Training of Human Resources on CNS/ATM Systems;

- d) consider the importance of attending activities sponsored by ICAO (courses, seminars, workshops, etc.) taking into account that such activities are aimed at complementing and updating civil aviation personnel training;
- e) request the ICAO NACC Regional Office to distribute the form, attached as **Appendix D** to this working paper, to be filled out by the Administrations in order to determine the need for human resources and training in the different aeronautical fields in the CAR States. This form should be sent to the NACC Office, *no later than 31 January 2003*; and
- f) use the information obtained in the aforementioned form by Aeronautical Administrations, GREPECAS and by the ICAO NACC Regional Office for coordination with Civil Aviation Training Centres (CATCs) of the CAR Region for human resources planning and training purposes.

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**CONCLUSION 1/XX                      TRAINING                      STANDARDIZATION                      –                      TRAINAIR  
METHODOLOGY**

That, for the development of human resources, States/Territories consider the following actions:

- a) take the necessary measures to standardize civil aviation training in the Region, in accordance with ICAO guidelines taking into consideration international co-operation;
- b) urge States, whose training centers have not joined the TRAINAIR Programme, to do so; and
- c) urge Aeronautical Administrations to agree, in an international co-operation environment, the development of bilateral and multilateral projects to facilitate technical assistance among States for developing human resources planning and training.

**4.                      Suggested Action**

4.1                      The Meeting is invited to take note of the information presented in this working paper and to approve the suggested conclusions in order to initiate, as soon as possible, actions on human resources planning and training.

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