

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE**

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

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

Agenda Item 6: Technical Cooperation in the CAR Region

SUMMARY

This working paper invites the Meeting to discuss the urgent need to establish specific policies for implementation of new systems which affect civil aviation, as well as to consider developing projects under the ICAO's Technical Cooperation Programme in the Region, bearing in mind the need to strengthen the civil aviation institutions in order to promote adequate infrastructure, services and human resource development planning.

1. Introduction

1.1 The development of CNS/ATM, the Safety Oversight and the Civil Aviation Security (AVSEC) Systems as well as the development of aeronautical human resources, demand a substantial investment from the States. Due to the evolution of these systems the Administrations will have to take a firm line in order to carry out an effective and efficient implementation of them by assuming the necessary financial commitments.

1.2 Taking into account the diverse administrative aspects required to install and operate the new systems, and the new infrastructure of installations and services that will be required for its implementation in the CAR Region States/Territories, the economic factors will vary from country to country.

1.3 In this context, the Administrations have varying options to provide sound solutions and to comply with the implementation requirements. Due to the technical and technological interdependence of the infrastructure and the transition to the new systems, this in some cases may make necessary a joint action from a group of States.

1.4 Considering the above and the need to take efficient action in an urgent situation, the CAR Region States should consider designating more of their own resources in order to provide the economic support, perhaps through the ICAO Technical Cooperation Programme to develop the necessary projects for a harmonized transition to the new systems. ICAO Technical Co-operation projects, Bilateral and Multilateral Agreements for Mutual Assistance, the International Co-operation among States, are means that the Administrations should consider in order to perform efficient planning.

2. Discussion

2.1 In general, as indicated in the introduction of this Working Paper, the main problems faced in the CAR Region for the effectiveness of new systems implementation are: the substantial investments required for the infrastructure and services, and the lack of a policy to decide and to adopt a viable and practical alternative. . Lack of policy definition is present specially in those States that most require the development of a multinational service and that should take advantage of the systems to serve a number of States. Lack of policy definition is present specially in those States that most required the development of a multinational service and that should take advantage of the systems to serve a number of States.

2.2 Under the circumstances, several States will need to work together on a national and regional scope. Due to the international scope of the new systems, it will be essential to analyse, interpret, plan and promote a co-ordinated and co-operative approach to meet the objectives of the implementation and to obtain the advantages of these systems. Some examples of these coordinated actions are COCESNA (CENAMER and ACSA), ACAAC, MEVA Network and the Regional System for Operational Safety in Latin America, etc. These international cooperation structures differ according to the implementation options chosen for a selected component of a system and depending on the number of participant States, as well as the legal and administrative arrangements necessary to meet the principles of the Chicago Convention.

2.3 To determine the most convenient option for each State, the planning personnel of the Aeronautical Administrations of those States should initiate as soon as possible the technical and the cost/benefit studies in order to select a feasible alternative for the national interests and to draw up a national plan.

2.4 It should be mentioned that some specific actions have been adopted by GREPECAS, and because of them several national and regional plans have been developed in the CAR Region; nevertheless, the operation and investment costs of the new systems and its implementation options have not been considered within those plans.

2.5 Also, within the activities of the UNDP/ICAO RLA/98/003 Technical Cooperation Project "Transition to the CNS/ATM Systems", a "Seminar on Institutional and Economic Considerations" sponsored by COCESNA, was held in Tegucigalpa, Honduras, from 30 September to 4 October 2002.

2.6 ICAO's Technical Co-operation

2.6.1 In order to successfully carry out implementation of the new systems, co-operation among the CAR Region States/Territories is required. The system's implementation costs could be reduced if technical cooperation projects are promoted by using the States cost-sharing contributions modality; so that duplication of efforts that have taken place can be avoided. The need to perform a detailed study of the situation of each State/Territory in order to define, the requirements that should be met to fulfil implementation and establish policy, could be achieved through an ICAO Technical Co-operation Programme project

2.6.2 The experience acquired by ICAO advising and assisting States through the Technical Cooperation Programme in the accomplishment of the SARPS, helps States in the search and management of external financing in order to develop the projects. The objective of the ICAO's Technical Co-operation Programme to provide assistance in order that civil aviation functions in a safe and efficient manner, responding to national and international needs and allow States to carry out their activities in a timely manner.

2.6.3 The possibilities offered by the programme are widely used in other regions whether by individual State projects or by regional projects, which include the participation of several States. The programme has proven to be an efficient tool for the implementation of the Regional Air Navigation Plans as well as for the institutional strengthening of civil aviation.

2.7 Regional and National Technical Cooperation Projects currently in execution in the CAR Region

2.7.1 Four technical cooperation projects are currently in execution in the CAR/SAM Regions, dealing with the implementation of the CNS/ATM and the Safety Oversight systems in the Region.

2.7.2 Technical cooperation projects developed at regional level are shown in **Appendix A**, and those being executed at a national level in some States of CAR Region are included in **Appendix B**.

2.8 UNDP/ICAO RLA/98/003 Project – Transition to the CNS/ATM systems

2.8.1 The project was created by GREPECAS to assist the States of CAR/SAM Regions to implement the transition plan to the CNS/ATM systems in accordance with the Air Navigation Regional Plan requirements.

2.8.2 The project has organized the tasks in six phases as shown below:

- Phase I Development of a methodology to assess present and future traffic flows
- Phases II and III Assessment of the main traffic flows
- Phase IV Development of traffic flows and States profiles
- Phase V Development of implementation scenarios
- Phase VI Establishment of the ATM implementation details, installation and services.

2.8.3. The total budget for this project is of USD\$2 406 120, with the following States and International Organizations participating in its financing: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, United States, Panama, Paraguay, Peru, Venezuela and COCESNA. It is necessary to highlight that from the CAR Region only COCESNA and the United States contribute financially to this project.

2.8.4 The Tenth Meeting of the GREPECAS Group, not only recognized that the Regional project RLA/98/003 turned into a very powerful tool to assist States/Organizations, but also considered that it would be very positive to rely on this project as a implementation mechanism in the CAR/SAM Regions. The GREPECAS Conclusion 10/16 formulated that the States, Territories and International Organizations are urged to continue supporting the RLA/98/003 project and requested the NACC and SAM Regional Offices to encourage States, Territories and International Organizations to use the available mechanisms as well as to participate actively in the project.

2.9 UNDP/ICAO RLA/00/009 Project - GNSS Augmentation Test (CSTB)

2.9.1. The main objective of the RLA/00/009 Project is to develop a test plan to evaluate the technical and operational benefits that are contained in the system augmentation of the wide area of the FAA of the United States applied in the CAR/SAM Regions. In this regard it is expected to obtain results that contribute to the establishment of a operational model of the system augmentation.

2.9.2. The project is being developed with a Memorandum of Understanding (MoU) between ICAO and the FAA with a duration of four years and with a \$ USD 188 936.00. budget. The following States and International Organizations participate financially: Argentina, Bolivia, Colombia, Ecuador, Panama, Peru, Venezuela and COCESNA.

2.10 ICAO RLA/99/901 Project – Safety Oversight Regional System

2.10.1 This project was established on the basis of a Memorandum of Understanding (MoU) between ICAO and LACAC and the related regulations. It was signed the 1st of October 1998 as a continuation of the RLA/95/003 Project to establish and operate a Safety Oversight Regional System in the Americas, in accordance to the regulations of the safety oversight of the Convention on International Civil Aviation and its Annexes.

2.10.2 The RLA/99/901 project has a budget of USD\$ 2, 250 000.00 and the following States participate financially: Argentina, Bolivia, Brazil, Chile, Cuba, Ecuador, Panama, Paraguay and Peru. Additionally, Airbus Industries participates as an observer. Note that from the CAR Region only Cuba participates.

2.11 ICAO RLA/00/902 Project – Reorganization of Centralamerican FIR Air Space

2.11.1 The Civil Aviation Authorities of Central America agreed to study the current structure of the Central American airspace, in order to align it with CNS/ATM concept. The project focusses on the enhancement of safety, efficiency and capacity in Central American FIR. The project reviewed ATC procedures enroute as well as terminal with emphasis on co-ordination. Additionally, the project dealt with the continued implementation of the Central American SAR Plan

2.11.2 The project was financially sponsored and managed by COCESNA.

2.12 International Co-operation

2.12.1 One of the main objectives of international cooperation is to set up agreements between two or more States which ensure that the costs involved will be shared by the participant States in a fair and equitable manner. These agreements have the purpose of developing multinational services in territories extending beyond the territory of a single State in accordance with the Regional Air Navigation Plan. In other words, international co-operation is a process of co-ordination and harmonization initiated as a sub-regional activity among a limited number of States.

2.12.2 With the establishment of these agreements important results on the technical, administrative and economic matters could be obtained, since the planning, implementation, and operation of the systems would be performed across boundaries with neighbouring States. The international cooperation schemes could be developed by the following means: 1) from the establishment of an international operating agency 2) from a joint charges collection agency and 3) from joint financing arrangements.

2.13 Bilateral and Multilateral agreements of mutual assistance

2.13.1 The special features of the new civil aviation systems demand a high degree of co-operation and mutual assistance among States, international organisations, users and service providers at a bilateral and multilateral level. The co-operation and mutual assistance on both bilateral and multilateral basis, are essential in the planning of the implementation since its outcomes directly affect the technical, administrative and economic aspects of the new civil aviation systems.

2.14 Special implementation projects (SIPs)

2.14.1 The ICAO Special Implementation Projects are aimed at assisting States in reducing those implementation deficiencies that affect the safety, regularity and efficiency of the international civil aviation.

2.14.2 Currently in the CAR Region a SIP is taking place for the COM/MET areas, with the purpose of studying and advising States to take prompt measures for the solution of problems that affect the exchange of OPMET information. This project has been divided in two phases: The first one was carried out last year in Central America and the second is being performed during September and October 2002 in several Caribbean Island States.

3. Conclusion

3.1 The planning and implementation of new systems are a complex, multifaceted and progressive process, and should be carefully coordinated and supervised at a regional level. The interdependence of technology implied in the systems makes it mandatory to re-double efforts so that States act jointly and in solidarity in order to establish systems that guarantee efficiency, considering that the new systems go beyond the States boundaries. Co-operation is the most adequate tool to perform the required implementation. A co-operative and co-ordinated action is the feasible way for a successful implementation.

3.2 Based on the above, the following draft conclusion is presented to the Meeting for its consideration:

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CONCLUSION 1/XX: INSTRUMENTS FOR THE EFFECTIVE IMPLEMENTATION
OF NEW CIVIL AVIATION SYSTEMS

Recognizing the urgent need to take effective measures in the implementation of new civil aviation systems, States are invited to consider the following actions:

- a) dedicate necessary financial resources for the implementation of new civil aviation systems, taking into account that infrastructure and services are high cost items and that there is a need to plan and develop a national plan;
- b) analyse the need for the development of regional technical cooperation projects, involving several States;
- c) consider the convenience of promoting international co-operation, bilateral and multilateral agreements that facilitate mutual assistance among States; and
- d) take major efforts to join and actively participate in the Regional Technical Co-operation projects, currently executed in the CAR Region.

4. Suggested action

4.1 The Meeting is invited to:

- a) take note of the contents of this Working Paper and to approve the suggested conclusion, taking into consideration the advantages offered by the ICAO's Technical Cooperation Projects and bilateral and multilateral agreements, as useful tools for the implementation of the air aviation plans, institutional strengthening, and regional integration; and
- b) take any other pertinent actions that the Meeting may consider.

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