

## **THIRD MEETING OF THE ALLPIRG/ADVISORY GROUP**

**(Montreal, 6 – 8 April 1999)**

### **Agenda Item 6: Technical cooperation issues**

#### **TECHNICAL COOPERATION REQUIREMENTS OF DEVELOPING STATES AND ICAO'S PLANS FOR COORDINATED IMPLEMENTATION OF CNS/ATM SYSTEMS**

(Presented by the Secretariat)

##### **SUMMARY**

This paper presents, for information of ALLPIRG/3, details on CNS/ATM systems requirement of developing States, and options for its coordinated implementation using the Technical Co-operation Programme. It also provides an update on ICAO's Technical Co-operation Bureau's activities in the implementation of CNS/ATM systems in developing countries.

### **1. INTRODUCTION**

1.1 ICAO, through its Technical Co-operation Bureau, and in order to establish the requirement of developing States of CNS/ATM systems, conducted surveys the last of which was in 1997. States in their replies to questionnaires indicated a very substantial need for assistance and preference for this assistance to be provided by ICAO. Furthermore, the information gathered and experience gained from the surveys and through the implementation of initial ICAO technical co-operation projects on the subject confirms that the majority of States, in addition to their requirement for external technical assistance for CNS/ATM, also require funding through ICAO.

### **2. TECHNICAL ASSISTANCE REQUIREMENT OF DEVELOPING STATES**

2.1 Out of 79 responses received to the ICAO questionnaire in 1997, 68 indicated that States were in need of external assistance for CNS/ATM systems planning and implementation in one or more of the following areas:

- needs assessments
- national planning including cost benefit and recovery analysis
- workshops and seminars

- specification and procurement of equipment, installation and commissioning
- human resources planning and development
- funding and donors mobilization

2.2 The result of the survey is summarized as follows:

<b>ICAO PIRGs</b>	<b>No. of Replies</b>	<b>Need Assessment</b>	<b>National Planning</b>	<b>Workshops/ Seminars</b>	<b>Specs./ Procur.</b>	<b>Human Resources</b>	<b>Funding/ Donors</b>
<b>APANPIRG</b>	22 Yes 3 No	20	19	18	19	20	18
<b>APIRG</b>	26 Yes	24	22	18	22	24	21
<b>EANPG</b>	7 Yes 7 No	4	4	7	4	7	7
<b>GREPECAS</b>	16 Yes 3 No	16	15	15	14	13	12
<b>MIDANPIRG</b>	5 Yes 2 No	4	3	4	4	5	2

2.3 As anticipated, some bilateral assistance was made available and will be increasingly made available to the developing States requiring assistance in equipment upgrading and transfer of know-how, whereas planning efforts and training, which are usually performed on sub-regional basis, would be more suitable for financial support provided from global and regional funding institutions.

### 3. ICAO'S COORDINATED IMPLEMENTATION OF CNS/ATM

3.1 In 1994, the ICAO Council recognized the necessity for the global coordination and harmonization of CNS/ATM implementation and decided that:

“.... ICAO shall play its central role in coordinating technical cooperation arrangements for CNS/ATM systems implementation. ICAO also invites States in a position to do so to provide assistance with respect to technical, financial, managerial, legal and cooperative aspects of implementation... In addition, ICAO shall facilitate the provision of assistance to States with regard to the technical, financial, managerial, legal and cooperative aspects of implementation.”

3.2 The Council, in defining the ICAO policy on CNS/ATM systems implementation, stressed the need for the ICAO Technical Co-operation Programme to assist States in the transition to CNS/ATM systems and stated “that, on a priority basis, ICAO undertake to take action to encourage multilateral and bilateral agreements and/or to secure the necessary funds to support Technical Co-operation Programmes..., and encourage States and stakeholders to provide staff or other resources to support ICAO free of charge...”.

3.3 The Technical Co-operation Programme is implemented through projects, which typically provide assistance to the recipient administration through the assignment of experts, either individually or through sub-contracted consultant firms; the provision of technical advice and transfer of know-how; the training of national staff abroad through the award of fellowship training programme and through the procurement, installation and commission of equipment.

3.4 The Technical Co-operation Bureau coordinates closely with ICAO's Regional Offices, RAO, ANB, LEB and/or other entities concerned in the development and implementation of CNS/ATM projects. This coordination includes technical, legal and administrative issues and involves participation in multi-disciplinary meetings and seminars within ICAO and at the regional and global level.

#### 4. SUMMARY OF TCB ACTIVITIES IN THE FIELD OF CNS/ATM

4.1 The following is a summary of CNS/ATM related activities provided/being provided by the TCB to developing States:

##### a) Asia and Pacific Regions

- Regional project providing in-country and sub-regional CNS/ATM familiarization workshops and cost/benefit seminars.
- CNS/ATM Transition Plan including cost/benefit analysis (pilot project) for Bangladesh
- GPS Procedures Development Seminar for India
- ADS/CPDLC Seminar for India
- CNS/ATM Specialized Seminars for the Republic of Korea and Indonesia
- ADS & CPDLC equipment procurement for Myanmar

##### b) Africa Region

No CNS/ATM project has been implemented so far by TCB in the Africa Region. The outline of a regional proposal has been developed by ICAO and presented at a meeting with AFCAC and donors in February 1999 in Dakar. This outline is to be adapted into the ACP format in April 1999 for submission to donors. Other CNS/ATM regional project documents were prepared and submitted to donors, who declined funding.

##### c) Europe and the Middle East Regions

Upon a request from the Arab Civil Aviation Commission (ACAC) a project document "CNS/ATM Implementation in the Arab World" has been prepared by TCB. The project will address the following major aspects:

- Air traffic management implementation plan;
- Evaluation of present communication, navigation and surveillance systems;
- Formulation of technical solution to cover the needs of air-ground and ground-ground communications in the region;
- Identification of new requirements for aircraft equipment for communication, navigation and surveillance;
- Human resource development and training;

- Perform cost benefit and recovery study and analysis;
- CNS/ATM course has been defined and will be given in September 1999 at Queen Noor Civil Aviation Technical College (QNCATC)
- A project document for conducting workshops/seminars on CNS/ATM planning in the Magreb States was prepared in 1997 and submitted to donors. No positive response was received.

d) **America Region**

The GREPECAS in its 5th and 6th meeting held in October 1995 and October 1996 approved the CAR/SAM implementation planning of the new CNS/ATM systems, recommending its use by the States initiating regional coordination activities for implementation, and requested ICAO to formulate and submit, for consideration of the Civil Aviation Administration in this Region, a technical cooperation regional project to assist the States in the planning and implementation of the CNS/ATM systems, that to include all states of the CAR/SAM Region.

ICAO, in compliance with this recommendation, prepared a project document for “Transition to the CNS/ATM Systems in the CAR and SAM Regions.” This project is to support States/Territories of both Regions in the planning and implementation of CNS/ATM systems including the requirement for human and financial resources and the applicable training programmes. It is expected that the Project will initiate its activities by the first quarter of 1999, with financial support of the United Nations Development Programme (UNDP).

4.2 It should be recognized that there continues to be serious financial obstacle to the implementation of CNS/ATM systems, and that often the States with the greatest air navigation infrastructural needs are those with the least ability to make progress. Furthermore, the aviation needs of individual States often compete unsuccessfully with other infrastructural needs, such as those in the health and education sectors.

4.3 Consequently, there is a need to continue making financial institutions aware of the full potential for investment benefits that could be obtained from the implementation of CNS/ATM systems, while governmental and international organizations have to be made aware of the opportunities that could be realized with the implementation of CNS/ATM systems.

5. **ACTION BY THE ALLPIRG**

5.1 ALLPIRG/3 is requested to note the information presented in this paper and support the role of ICAO’s Technical Co-operation Programme as a major factor in the implementation of CNS/ATM systems worldwide.