THIRD MEETING OF THE ALLPIRG/ADVISORY GROUP

(Montreal, 6 – 8 April 1999)

Agenda Item 5.5: Interregional coordination and harmonization mechanism – Interregional extension of the pilot project on CNS/ATM implementation

INTERREGIONAL EXTENSION OF THE PILOT PROJECT

STANDARDIZATION OF THE SUBREGIONAL APPROACH TO CNS/ATM SYSTEMS IMPLEMENTATION

(Presented by the Secretariat)

SUMMARY

The results of the work being carried out so far on a CNS/ATM special implementation project (SIP) in the CAR/SAM Regions indicate that a new approach to interregional planning of CNS/ATM may be opportune. Any new approach to planning will need to take into account the emergence of subregional solutions to planning and implementation issues and, indeed, the subregional approaches recommended by the Rio Conference. This paper seeks the ALLPIRG's views on a proposed set of new planning elements ("inter-groups" – small groupings of States and users to deal with specific interregional issues, supported by a dedicated ICAO multi-disciplinary function and overseen by a multi-regional Secretariat coordination group, with a standardized subregional planning methodology and specific training elements) that would put more focus on the interregional and subregional issues of CNS/ATM planning and implementation.

1. INTRODUCTION

1.1 ALLPIRG/3–WP/16 concludes by seeking the ALLPIRG's view on whether the planning approach being tested in the GREPECAS context through a CNS/ATM special implementation project (SIP) should be recommended for general application in other regions. One of the SIP deliverables will be a regional planning methodology developed from ALLPIRG/2 advice that PIRGs' planning approaches should be based on major international traffic flows and homogeneous ATM areas (Conclusions 2/2, 2/3, 2/4, 2/10, 2/11 and 2/14 refer). This paper suggests that, in the context of regional planning, special attention needs to be given to interregional and subregional issues and proposes some new planning elements that the ALLPIRG may wish to introduce to put more focus on them.

2. DISCUSSION

The CNS/ATM SIP in the CAR/SAM Region

2.1 The CNS/ATM special implementation project being carried out in the CAR/SAM Regions has resulted, *inter alia*, in the development of a regional planning methodology that reflects the emphasis PIRGs are placing on major international traffic flows and homogeneous ATM areas in their approaches to planning (ALLPIRG/3–WP/23 refers).

2.2 The results of the SIP also include guidance on the development of business cases for implementation options, as well as one such case for a specific planning exercise carried out for the traffic flow Santiago - Lima - Miami.

2.3 States and users involved in the Santiago - Lima - Miami exercise have already become acquainted with the regional planning methodology emerging from the SIP, and its value has already been recognized by the eighth meeting of the GREPECAS, which received an interim report on the work being carried out.

Extension of the SIP in the context of a Technical Co-operation Project

2.4 In further recent developments, work being carried out in the context of a CAR/SAM Technical Co-operation Project includes plans to extend the application of the resultant SIP methodology to two more of the major flows defined by GREPECAS (ALLPIRG/3–WP/16 refers).

2.5 This extension of this exercise would be funded by RLA98/003 and would consist of two seminars to teach the SIP methodology to a dedicated project team and three experts from each participating State in the fields of ATM, CNS and Air Transport Economics. Once suitably trained, the Project Team and States' experts would participate in an organized planning and implementation exercise, initially for two more flows, but with the ultimate aim of covering all GREPECAS-defined traffic flows. It is understood that States' experts and users would participate selectively in the planning work for each traffic flow exercise on the basis of their involvement in the defined area.

2.6 It is encouraging to see the confidence already being placed in the SIP methodology and the fact that it has been possible to find funding for its extension. The longer-term intention, however, is to move its application progressively from the Technical Co-operation mechanism into the regular GREPECAS machinery and to further refine the process over time.

Interregional issues

2.7 One area where planning on the basis of major traffic flows is most challenging involves those flows defined by GREPECAS which extend beyond the borders of the CAR/SAM Regions. This situation is mirrored in most other regions where defined major traffic flows can extend beyond the borders of the planning region for which a PIRG has responsibility.

2.8 The question arises, therefore, as to how planning should proceed in order to avoid duplication and/or inconsistency as a result of different treatment by PIRGs of those traffic flows that extend outside their regions.

2.9 While it is true that PIRGs' planning takes into account interfaces between adjacent regions, such an approach might not be enough, for example, to provide for the seamlessness of operations along the full length of defined major traffic flows.

Subregional issues

2.10 Planning on the basis of major traffic flows produces groupings of States responsible for the flight information regions (FIRs) through which the flows run. Such groupings can be viewed as subregional areas bound together by traffic flow characteristics. In many cases, such subregional areas are also interregional in nature.

2.11 Furthermore, since several major traffic flows generally terminate at a single major airport, and since flows also cross each other, areas of increased complexity become apparent inside planning regions. Again, it may be appropriate to view these groupings of States/FIRs where requirements are more or less complex as subregional areas.

2.12 Finally, subregional groupings such as ASECNA, COMESA, COSESNA, ECAR, EUROCONTROL and SADC are already in existence, and are bound together institutionally as a result of their similar traffic density and complexity, air navigation infrastructure requirements, and other political and economic considerations.

Interregional and subregional planning considerations

2.13 Planning for successful implementation of CNS/ATM systems worldwide is necessitated by the large and complex nature of the undertaking and the multiplicity of partners involved. ICAO has addressed the planning at global and regional levels and has, at States' request, provided assistance with national CNS/ATM planning. The SIP has further developed the regional approach to place emphasis on major international traffic flows and homogeneous ATM areas. However, the work carried out in connection with the World-wide CNS/ATM systems Implementation Conference (Rio de Janeiro, May 1998) and the latest regional planning initiatives call for more focus on planning at interregional and subregional levels.

2.14 Considering that some of the elements of CNS/ATM systems require a multinational approach for their implementation, it is recognized that planning at interregional and sub-regional levels must play a key role in the overall objective of attaining a seamless, interoperable and cost-effective global ATM system. In fact, the sub-regional groups referred to above, already focus on multinational approaches to planning and implementation of CNS/ATM systems in support of PIRGs' efforts.

2.15 It is possible, however, that the full set of interregional traffic flows lend themselves to specific treatment at a more global level, and that subregional planning is not as integrated into the regional exercise as it might be and full advantage is not being taken of possible subregional approaches.

2.16 If this is the case, then it is desirable that, in the interest of global harmonization, ICAO also develop standardized interregional and subregional approaches to planning for CNS/ATM systems. Such a structured approach would take into account regional and interregional requirements and would provide higher-level guidance to subregional groups, as well as encompass technical, operational, institutional and economic aspects of CNS/ATM.

3. ACTION BY THE ALLPIRG

3.1 In light of the above, the ALLPIRG may wish to encourage ICAO to inject more focus on interregional and subregional approaches into the CNS/ATM planning process. If so, it may wish to support the following conclusion, which proposes initial concrete steps — building on the work completed in the CAR/SAM CNS/ATM SIP and the Rio Conference — towards achieving those objectives.

Conclusion 3/X – Increasing emphasis on interregional and subregional planning for CNS/ATM

That, with a view to increasing emphasis on interregional and subregional planning for CNS/ATM, ICAO:

a) develop a standard methodology for subregional planning of CNS/ATM systems as guidance material for PIRGs;

b) develop a standardized approach to planning for inter-regional traffic flows by:

1) identifying all inter-regional flows (e.g. IF_1 to IF_n);

2) identifying groupings of States and users ("inter-groups") relevant to IF_1 to IF_n (e.g. IG_1 to IG_n)

3) design an interregional planning structure comprising:

i) formally created inter-groups and their allocation to relevant PIRGs;

ii) a coordinating group (one project manager for each region with the role of setting priorities, harmonizing planning proposals, consolidating business cases, etc);

iii) a multi-disciplinary ICAO function (providing expertise in ATM, CNS and Air Transport Economics to support the inter-groups); and

iv) training for interested States' experts in the ATM, CNS and Air Transport Economics fields; and

c) in light of developments with a) and b) above, make progress reports to the next meeting (June to December 1999) of each PIRG, with a view to seeking their commitment to continuing this initiative.

3.2 It is understood that resources for the coordinating group and the multi-disciplinary function support would be required from Headquarters and regional office staff planning activities. With regard to training, some States and Secretariat members could take advantage of the seminars being organized in the context of the CAR/SAM Technical Co-operation Project (RLA98003); future training would be through regular ICAO seminars/workshops, ICAO's Technical Co-operation mechanism, SIPs or by those States wishing to give priority to planning and implementation for a specific interregional area.

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