

CNS/ATM/IC SG/1  
Appendix 6B to the Report on Agenda Item 6

**FIRST AMENDMENT OF THE GLOBAL AIR NAVIGATION PLAN  
FOR CNS/ATM SYSTEMS (DOC 9750)**

**Step-By-Step Approach for Planning ATM Requirements and CNS Infrastructure**

The step-by-step approach for planning ATM requirements and CNS infrastructure is as follows:

*Step 1.* Identify homogeneous ATM areas and/or major international traffic flows.

*Step 2.* List the ICAO region(s), flight information region(s) and State(s) involved in the homogeneous ATM areas and/ or major international traffic flows.

*Step 3.* Carry out air traffic forecasts and ascertain airspace user needs.

*Step 4. Evaluate* Perform an operational analysis of the current infrastructure of for the areas identified in Step 2 in terms of, inter alia:

- a) ATM limitations and shortcomings;
- b) separation standards; and
- c) CNS availability.

*Step 5.* Determine the ATM objectives and requirements for the areas identified in Step 2 (Part I, Chapter 4, Appendices A and B refer). in terms of the required total systems performance (RTSP), using as the basis the guidance material contained in the operational concept document (*operational analysis*).

*Step 6.* Establish CNS and other technical and automation requirements necessary to support the desired ATM objectives identified in Step 5 (*operational analysis*).

*Step 7.* Analyse the benefits/improvements resulting from Steps 5 and 6 in order to establish (*operational analysis*):

- a) costs-benefits;
- b) relative priority; and
- c) expected performance improvements; and

d) implementation dates of the various ATM objectives and CNS facilities for each of the homogeneous ATM areas and/or major international traffic flows/routing areas. (Part I, Chapters 5, Appendix A; Part I, Chapter 6, Appendix A; Part I, Chapter 7 and 8, Appendix A; and Figures I-3-2 to I-3-5 of this chapter refer).

*Step 8.* Considering the many technical solutions and implementation options available, repeat as necessary Steps 5, 6 and 7 to determine the most appropriate solution (*operational analysis*).

*Step 9.* Develop an ATM implementation plan based on the outcome of steps 1 through 8 above using as the basis the guidance material contained in the operational concept document and the results of the operational analysis. A safety assessment should demonstrate that any new systems, or changes to the present systems, will achieve an acceptable level of safety.

*Step 9-10.* Examine the possibilities of funding the implementation of the CNS/ATM systems infrastructure for States requiring financial assistance.

*Step 10-11.* Determine the means and methods of cost-recovery.

*Step 11-12.* Establish a framework to interface with all the CNS/ATM partners on a continuing basis to ensure the harmonious and integrated implementation of CNS/ATM systems in homogeneous areas and/or major international traffic flows.