

ELEVENTH AIR NAVIGATION CONFERENCE

Montreal, 22 September to 3 October 2003

Agenda Item 4: Capacity-enhancement measures

4.2 Regional measures

:

HARMONIZATION AND INTERFACE PROBLEMS BETWEEN REGIONS

(Presented by African States¹)

SUMMARY

The purpose of this paper is to discuss the need for harmonization of capacity — enhancing measures and ATM performance between the various ICAO Regions and most particularly the AFI Region.

Action by the conference is in paragraph 6.

1. INTRODUCTION

1.1 The ICAO air navigation planning process is developed on a regional basis. Furthermore, the implementation of systems and measures aimed at enhancing the performances of air traffic management (ATM) will not be achieved at the same pace in the various world regions.

* English and French versions provided by African States.

¹ Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cap Verde, Central African Republic, Chad, Comoros, Congo, Cote d'Ivoire, Democratic Republic of the Congo, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libyan Arab Jamahiriya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Togo, Tunisia, Uganda, United Republic of Tanzania, Zambia, Zimbabwe

1.2 The regions adjacent to the AFI Region are increasingly contemplating to implement capacity-enhancing measures in the airspaces. Often, such measures are intended to meet an increasing traffic demand and cope in some cases with pressures of political and industrial nature.

1.3 At the same time, the aviation community is increasingly conscious of the need to safeguard and enhance safety bearing in mind the increase in air traffic. The use of procedures and rules governing traffic management which are incompatible with ICAO provisions is an obvious threat to air navigation safety, in the absence of standardization between concerned airspaces.

1.4 Also, meeting regional capacity requirements through amendments to ICAO *Regional Supplementary Procedures* in Doc 7030 will probably result in a disparity in ICAO procedures and incompatibility between regional air navigation plans.

1.5 Generally speaking, interface States between several regions experience directly the consequences of capacity — enhancing measures taken by some regions without prior coordination. This is quite true for the interface States in the AFI Region. Furthermore, these interface problems could have an impact on adjacent States within the same region. Often, the integration of harmonization aspects is viewed as a subsidiary phase in the process of planning and implementation of available resources. This could create major constraints for countries concerned and a workload beyond the resources needed to update applicable procedures and rules with a view to maintaining the level of safety during the transitional phase.

1.6 Bearing that in mind, it would be necessary to develop a global method to cope with capacity-enhancing measures. An examination of the problems relating to an increase in the demand within the framework of the conference will foster a convergence of views on the most appropriate ways to remedy the situation and prepare ourselves for the future.

2. RELATIONS OF THE AFI REGION WITH ADJACENT REGIONS AND GLOBAL ACTIVITIES

2.1 Regional cooperation on ATM plays a key role in the enhancement of the global ATM system. In this connexion, there has been extensive consultations/coordination of the ICAO Regional Offices in the AFI Region with adjacent regions, in particular for the purpose of implementing the communications, navigation, and surveillance/air traffic management (CNS/ATM) systems. Consequently, the following mechanisms were adopted:

- a) an informal AFI interface periodical meeting;
- b) AFI/MID interface informal meeting;
- c) informal meeting of the SAT Coordination Group (AFI/North Atlantic Region interface);
and
- d) coordination between AFI and ASIA/PAC Region.

2.2 This approach enabled to examine and iron out all the difficulties stemming from enhancing-capacity measures and the CNS/ATM systems implementation. For information, the following matters were dealt with:

- a) harmonization of AFI/EUR Air Navigation plans;
- b) implementation of the CNS/ATM systems for areas of routing AR-7 (Coastal routes in the Northern part of AFI and AFI/EUR interface routes);
- c) reduced vertical separation minimum (RVSM) implementation;
- d) harmonization of CNS/ATM plans of AFI and SAM regions, including air routes networks;
- e) implementation of the Haj routing network in Maghreb States;
- f) implementation of ACAS II;
- g) implementation of RNAV routes;
- h) development of amendment proposals to *Regional Supplementary Procedures* (Doc 7030);
- i) harmonization of AFI/MID air navigations plans;
- j) harmonization of CNS/ATM Plan for AFI/MID, including air route network and implementation of very small aperture terminal (VSAT) networks;
- k) harmonization of ADS/CPLC programmes between AFI and ASIAPAC; and
- l) implementation of very high frequency (VHF) — 8.33 KHz channel spacing with Europe.

2.3 Due to budgetary constraints in ICAO Regional Offices, coordination and harmonization meeting are no longer planned and the tendency will probably lead to the suppression of such meetings.

3. THE SINGLE SKY CONCEPT

3.1 Within the single European sky, ATS services will be provided by allocating functional block airspaces (FBA). This will entail a restructuring of the European airspace based on traffic flows. The interface countries in the AFI Region will be affected by the airspace restructuring and the route networks review. Consequently, airspaces located within the AFI Region will need to be adapted within the framework of a coordinated implementation of new concepts as approved at global level.

3.2 The implementation plans are provided for detailed work in the legal, technical and operational domains. The proposal is however to create a Single European Upper Information Region (UIR) above flight level FL 285 and this is planned for January 2005. An amendment to the air navigation plan-EUR Region (ANP/Doc 7754) will be needed as well as related documents.

3.3 Restructuring the European airspace calls for the revision of route networks with a direct impact on route network in interface countries of the AFI Region as well as on traffic coordination procedures.

3.4 Regional air navigation plans (ANP) describe in detail the facilities, services and procedures required for international air navigation within a specified area. Such plans contain recommendations that States could follow in programming the provision of their air navigation facilities and services provided in accordance with the plans of other States, in order to achieve an integrated system in the foreseeable future.

3.5 The implementation of the single sky concept in the European region, will undoubtedly have operational and technical consequences on the air navigation for the States of the adjacent regions. These consequences can include without being restrictive, the revision of the ANP, the revision of the procedures of coordination between (ACCs) as well as the reorganization of the network of airways and probably the revision of the zones of responsibilities with regard to SAR services and the delegation for control over international sea.

4. REMINDING THE ORIENTATIONS OF THE 10TH AIR NAVIGATION CONFERENCE

4.1 The recommendations on the planning and implementation of air navigation systems developed at the Tenth Air Navigation Conference held in Montreal in September 1991 had set the following principles:

- a) the necessity to ensure, at the global level, a rational and orderly evolution of ATM services; and
- b) the planning of ICAO Air Navigation will continue to be carried out through the planning process at the regional level. Therefore, there will be a constant coordination need of implementation policies among adjacent regions. It is felt that the responsibility/burden of this coordination exercise should continue to rest on States and relevant regional planning groups.

5. CONCLUSION

5.1 The international aviation community has entered a new phase of its evolution with increased automation, the introduction of new technologies and concepts, a change in the role of users and operators of systems and increased pressures for capacity-enhancing to enable a greater number of aircraft to use the available airspace and thus, achieve the objectives set in the field of air traffic management (ATM).

5.2 With ICAO, IATA and other specialized international organizations support, the ATM coordination should foster cooperative moves and facilitate the interface between the AFI region and other adjacent regions within the framework of the implementation of capacity-enhancing and performance improvement programmes.

5.3 Based on the forgoing and in order to guarantee the harmonization and interoperability between CNS systems of adjacent regions, African States recommend that, while planning and implementing new concepts, including the single sky concept, adjacent regions:

- a) take into account the planning of CNS in AFI region and in particular for interface regions;
- b) work out specifications based on those developed by ICAO; and
- c) adopt solutions which foster harmonized results and interoperability with adjacent States.

6. ACTION BY THE CONFERENCE

6.1 The conference is invited to:

- a) take note of the information supplied in this paper; and
- b) adopt the following recommendation:

Recommendation 4/xx — Harmonization of air navigation systems between regions

THAT ICAO develop a coordination mechanism between regions for planning and implementation of capacity-enhancing measures and ATM performance improvement between regions for an harmonized evolution aimed at enhancing aviation efficiency and safety.

THAT ICAO consider coordination meetings between adjacent regions, including AFI/EUR regions, as a matter of priority in its budget-programme.

THAT ICAO be systematically involved in any regional initiatives aiming at enhancing ATM capacity and performance.

— END —