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C. Bosseler

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# SESSION FOUR

## INTERNATIONAL PROBLEMS OF AIR TRAFFIC CONTROL AND POSSIBLE SOLUTIONS

BY C. BOSSELER†

### I. INTRODUCTION

PROVISION for air traffic control services, as organized at an international level today, finds its legal and political basis in the Chicago Convention and in the norms and recommendations issued by the International Civil Aviation Organization which the Member States have accepted. There is no need for me to make a case here for continued and increased standardization of ATC procedures throughout the world. This need has long been recognized, and the worldwide acceptance of its consequences has been translated into practice to such an extent that we now take it for granted. In addition, all countries have accepted the principle that responsibility for the provision of control services falls to the State—it is a part of the public function or one of the many burdens that governments assume in the world of today. The formal expression of this principle is to be found in Article 28 of the Chicago Convention.

In carrying out its responsibility, a government has several options; but until recently, States have acted individually. The emergence of international agencies charged with the collective providing of these services is a relatively new experiment; it is one which, if successful and if technical reasons require it, may be repeated until it becomes the general rule instead of the exception. Although the States act individually, in general they cooperate in the realm of standardization of ATC and many other procedures without which international air transport could not function. Collective provision of air traffic services by groups of two or more neighbouring States is not expressly envisaged in the Chicago Convention or in its Annexes, but it is not forbidden. Legal argument apart, a bar to cooperation would run counter to the spirit of the Convention. Moreover, the initiative of ICAO is responsible for the preparatory work leading to the creation of the Society for Air Navigation Services of Central America.

Although the imperatives that brought about the creation of international air traffic control agencies do not require the complete transfer of national sovereignty over airspace, the *exercise* of national sovereignty has been curtailed insofar as competency in certain fields has been transferred to the international control body to which the States belong. Responsibility

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† LL.D.; Former Judge & President of the Court, Elizabethville, Congo; Judge, Luxemburg (Presently on Secondment); Presently Head of Eurocontrol, Legal Service; Charge de Cours, Law Faculty, Brussels U.

for control services is accepted by modern States. Transfer of competence for those services by two or more neighboring States to an international agency created by them implies no desire on their part to rid themselves of this responsibility; rather, it indicates a keener awareness of it. It is an act dictated by political, financial and technical imperatives. The Member States retain their ultimate responsibility to each other and to third States; their financial commitment to the ATC is an expression of that responsibility.

## II. WHY NATIONS CREATE INTERNATIONAL ATC AGENCIES

Necessities rather than mere passing reasons led some nations to set up international agencies entrusted with the provision of air traffic services. These necessities are dominantly technical. They arise from the increased speeds of modern jet aircraft and performance characteristics which differ from those of piston engine and turboprop aircraft.<sup>1</sup> The technical factors added to the limits and situation of national territories have led nations in some parts of the world to the realization that provision of air traffic services on an exclusively national basis is not sufficient. As early as July 1957, the Air Navigation Commission of ICAO found that it would be desirable to extend the area of Flight Information Regions as much as possible in order to cope with increased speeds of turboprop aircraft.<sup>2</sup> If the ideal Flight Information Region is equal to or greater in area than the territories of several neighboring countries, then collective provision of services is a logical extension of the ICAO finding. The element of national territory is therefore most important. For example, modern jet aircraft on a flight from Paris to Hamburg will overfly four countries and cross a state like Belgium in a matter of minutes. On a direct flight from Paris to Copenhagen, an aircraft overflies five countries. Not so very long ago, it took the DC-3 four hours to cover the distance; the Boeing 707 has cut the flight time to just over an hour. The Concorde and the American SST will make the flight in 29 and 19 minutes respectively, crossing a country like the Netherlands in 4 and 3 minutes. Frequency switching to ensure communications between a control center and aircraft, and time required for control operations, are more important problems than ever before. Thus, the combined effect of (1) modern aircraft characteristics (particularly speed and cruising altitudes) and (2) density of air traffic, coupled with the existing territorial situation in Western Europe, has obliged States to adopt a community solution.

In Africa and in Central America where similar situations have been found, somewhat different factors have been influential. Thus, comparison of Africa, Central America, and Europe is called for. In Africa, twelve recently independent States plus the French Republic formed the organization known as ASECNA (Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar). These African States were formerly

<sup>1</sup> See Larsen, *Liability of Air Traffic Control Agencies to Foreign Air Carriers*, *IL DIRITTO AEREO ANNO III-II TRIM.* 5-6 (1964).

<sup>2</sup> ICAO Doc. AN/WP-1702, 16 July 1957.

French Colonial possessions. The convention creating ASECNA was signed at Saint-Louis de Senegal on 12 December 1959. In Central America, five States signed a convention at Tegucigalpa in Honduras, on 26 February 1960, creating the Society for Air Navigation Services for Central America. Finally, six Western European States signed a convention at Brussels on 13 December 1960, creating Eurocontrol.

The reasons leading to the establishment of these three organizations display certain similarities and certain disparities. Europe and Central America found themselves faced with similar problems. In the preamble to the Central America Convention there is a direct reference to the coming of jet aircraft. Likewise, in the preamble to the Eurocontrol Convention the signatory States express their awareness of the technical and operational requirements generated by the characteristics of modern aircraft and equipment. The two areas have similarities from the politico-geographical viewpoint. They form a compact entity—many of the States are small in area—and both regions have relatively high traffic densities.

In the case of the States of former French Africa, the situation was somewhat different. Historically, ASECNA is the result of the French Civil Aviation Administration's handling of air traffic services in the area. Upon decolonization, aid is usually provided to the new State by the former colonial power.<sup>3</sup> It was only logical, in the case of French speaking Africa, to maintain, as far as possible, the existing administrative unity of air traffic services organization.

Thus, for French Africa the administrative factor was preponderant. For Europe and for Central America technical and politico-geographical reasons predominated. In all cases the economic factor had an influence.

### III. DIFFERENCES AMONG INTERNATIONAL ATC AGENCIES

In the above three examples of collective provision of air traffic services, the broad institutional and administrative principles are the same. There are, nevertheless, many differences of an organic, legal, and financial nature. The most striking difference between Eurocontrol and the two other organizations is the mandate provided in the basic Conventions. Eurocontrol's activity is at present limited to the upper airspace.<sup>4</sup> The reason behind the creation of Eurocontrol was the introduction by the world's airlines of turbine engined aircraft with a high optimum operating altitude. With the growth of air traffic, the constantly increasing number of civil aircraft in the upper airspace, which had virtually been the preserve of military aircraft, gave rise to the problem of air traffic safety. The implication was that aircraft movements at those altitudes should be regulated from the ground by appropriate control centers, just like aircraft movements in the control areas of the lower airspace. One of the con-

<sup>3</sup> Tancelin, *The Air Navigation Security Agency for Africa and Madagascar*, 1963 (Thesis submitted to the Faculty of Graduate Studies and Research, McGill University).

<sup>4</sup> International Convention Relating to Co-operation for the Safety of Air Navigation (Eurocontrol), 13 Dec. 1960, arts. 1 & 38 (hereinafter Eurocontrol Convention).

clusions which emerged from the studies which preceded the creation of Eurocontrol was that air traffic problems in the upper airspace were different from those posed by the control of aircraft in lower airspace. Accordingly, it was decided to entrust to Eurocontrol the provision of air traffic services in the upper airspace. Also, provision of services by Eurocontrol for the lower airspace was envisaged in the Convention. In Article 2, it is provided that Contracting Parties may request a decision from Eurocontrol's Permanent Commission for the Safety of Air Navigation that services for the whole or part of their lower airspace be entrusted to Eurocontrol. No decision in this direction has been taken to date. Contrawise, in the Conventions of Saint-Louis and of Tegucigalpa, no distinction is made between upper and lower airspace.

The three organizations also display institutional differences. Eurocontrol is comprised to two organs: the Permanent Commission for the Safety of Air Navigation and the Air Traffic Services Agency. The competencies of the two organs are quite distinct. Various areas of action reserved to the Permanent Commission are specified in the Convention.<sup>5</sup> This duality as regards competence is not found in either ASECNA or COCESNA.

All three organizations are invested with legal personality. In the case of Eurocontrol, consistent with the duality of its organs, the agency alone represents the organization and acts in its name. Another distinctive feature of Eurocontrol lies in determination of the configuration of the airspace in which the agency provides air traffic services by the Permanent Commission, that is, by one of Eurocontrol's organs and not by each Member State.<sup>6</sup>

What distinguishes ASECNA financially is continued technical and financial assistance by a former colonial power to newly independent States. The situation is unique. France is a signatory to the Convention of Saint-Louis de Senegal, but her territory and the airspace above it do not form part of the area for which ASECNA has the duty to provide air traffic services. To the extent that ASECNA depends on the financial contributions from its Member States, France is responsible for the lion's share.<sup>7</sup>

ASECNA is authorized to charge users for the services it renders;<sup>8</sup> user charges were introduced by a decision of the Governing Board in 1962. For its financing of services, the Society in Central America depends solely upon charges collected from the users of the services it provides.<sup>9</sup> Eurocontrol depends on the contribution of its Member States, but the sharing of these contributions is done on a basis laid down in the Convention itself. The States contribute to Eurocontrol's investment budget in proportion to their Gross National Products. Operational expenses are shared by the application of a formula which takes account of two factors: GNP

<sup>5</sup> Eurocontrol Convention, arts. 1, 6, 7, & 14; Statute of the Agency, art. 2.

<sup>6</sup> Eurocontrol Convention, art. 6(2) (d).

<sup>7</sup> See Cahier des Charges, annexed to Convention Relative à la Création d'une Agence Chargée de Gérer les Installations et Services Destinés à Assurer la Sécurité de la Navigation Aérienne en Afrique et à Madagascar, 12 Dec. 1959, arts. 4 & 19 (hereinafter ASECNA).

<sup>8</sup> ASECNA, art. 20.

<sup>9</sup> Convention of Tegucigalpa, art. 23.

and the proportion of the services rendered to aircraft of the State.<sup>10</sup> Collection by Eurocontrol of user charges is not excluded.<sup>11</sup> It is envisaged in Eurocontrol's basic texts. The organization could, therefore, one day draw part of its operational income from the users. At present, however, it depends entirely upon the contribution of its members to meet its financial commitments, both in the operational and investment domains.

#### IV. ATC LIABILITY

As shown by the discussions of the ICAO Legal Committee, to which non-contractual liability in respect to air traffic control was first referred at its 13th Session in 1960, this is a highly complex problem. One of the characteristics of international air traffic control organizations is that they are not subject to any specific legal order. In addition, these organizations have no rule making authority. They apply to air traffic control the regulations in force in the airspace entrusted to them.<sup>12</sup> They are, nevertheless, entitled to give all necessary instructions to aircraft commanders.<sup>13</sup>

Because these organizations do not enjoy legal immunity, it was considered necessary to specify in the basic texts governing their activities the non-contractual liability regulations to which they are subject. The basic texts of the COCESNA and ASECNA provided that these organizations should make good any damage caused to third parties in providing control services,<sup>14</sup> and although it is not expressly stated, it would appear that liability resulting from negligence is evinced.<sup>15</sup> Article 25, paragraph 2, of the Eurocontrol Convention expressly states that the organization "shall make reparation for damages caused by the negligence of its organs or of its servants in the scope of their employment as that damage can be attributed to them." This is a special system of liability. It is one based on the notion of fault and the concept that Eurocontrol is directly, and not simply indirectly, liable for the negligence of its organs and servants. The last sentence in the Article adds that the foregoing provision "shall not preclude the right to other compensation under the national law of the Contracting Parties." The Eurocontrol Convention is the only international agreement with autonomous and virtually comprehensive liability regulations which do not rule out the application of national law.<sup>16</sup> This provision specifying that liability does not preclude the right to other compensation under national law may raise difficulties of interpretation.

In none of the three organizations is there any provision for limiting liability. This is not in line with the viewpoint recently adopted by the

<sup>10</sup> Eurocontrol Convention, Statute of the Agency annexed to the Convention, arts. 23 & 26.

<sup>11</sup> *Id.* at art. 22(9); Eurocontrol Convention, art. 20.

<sup>12</sup> Convention of Tegucigalpa, art. 9; Eurocontrol Convention, art. 17; Cahier des Charges annexed to ASECNA Convention, art. 5.

<sup>13</sup> Convention of Tegucigalpa, art. 10; Eurocontrol Convention, art. 18.

<sup>14</sup> Convention of Tegucigalpa, art. 5; Cahier des Charges annexed to ASECNA Convention, arts. 13 & 17.

<sup>15</sup> With regard to ASECNA in particular, see Larsen, *supra* note 1, at 18 & 29.

<sup>16</sup> Rudolf, *Die ausservertragliche Haftung der Europäischen Organisation zur Sicherung der Lufthart (Eurocontrol)*, 1 ZEITSCHRIFT FÜR LUFTRECHT UND WELTRAUMRECHTSFRAGEN 58 (1965).

ICAO Legal Committee at its 16th Session, when spadework was done on an international convention for the liability of air traffic control services. The Committee considered that the convention should provide for limited liability, although the ceiling envisaged was fairly high. It is worth remembering in this connection that the whole question of limited liability is open to debate.<sup>17</sup> The Legal Committee agreed that the system of liability contained in the convention should be based on the notion of fault. In this respect the Committee has come to recommend a solution which has been considered advisable in the case of ASECNA, COCESNA and Euro-control.

During its 16th Session, the ICAO Legal Committee reaffirmed<sup>18</sup> that its aim should be to embody international regulations in a special convention on the liability of air traffic control services. It can be hoped that this objective will be fulfilled despite the many major difficulties that stand in the way, and that one day soon the liability of control services will be given an international legal basis in a convention, just as other problems in the domain of air transport and air navigation were resolved by the Conventions of Warsaw, Rome and Guadalajara.

#### V. CONCLUSION

In international air transportation, cooperation between nations is already well established. This cooperation is not being extended into the field of air traffic control. And so, civil aviation, which forms a vital link between nations, will go on asserting itself ever more firmly as an instrument of international cooperation, understanding and agreement.

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<sup>17</sup> See Larsen, *Air Traffic Control: A Recommendation for a Proof of Fault System Without a Limitation of Liability*, 32 J. AIR L. & COM. 3 (1966).

<sup>18</sup> ICAO Doc. 8704-LC/155, 22 Sept. 1967, Annex E.