



WORKING PAPER

**CONFERENCE ON THE ECONOMICS OF AIRPORTS AND
AIR NAVIGATION SERVICES**

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Agenda Item 3: Specific issues related to air navigation services economics and management
Agenda Item 3.3: Cost allocation and charging systems

**CATEGORIZATION OF SERVICES FOR COST ALLOCATION
AND CHARGING PURPOSES**

(Presented by the Secretariat)

SUMMARY

This paper discusses the categorization of air navigation services for cost allocation purposes and its implications on the charging system. Air navigation services providers (ANSPs) have the option to allocate costs according to the traditional service categories (i.e. aerodrome control, approach control and area control services) or to an alternative categorization of services based on the portions of airspace and on the phase of a flight. Adopting the alternative categorization could enhance transparency and cost-relationship in allocating the costs, and would enable ANSPs to diversify their charges according to each service category (for example, zone charges). The paper concludes that the use of the alternative categorization and the corresponding zone charges may lead to a more efficient use of resources, especially in congested or complex airspace. It is also concluded that ICAO should develop additional guidance on this subject.

Action by the Conference is in paragraph 4.

1. INTRODUCTION

1.1 The costs to provide air navigation services may vary depending on the portions of airspace and their complexity, and on the phase of a flight. The Conference on the Economics of Airports and Air Navigation Services (ANSCoF 2000) recommended that ICAO expand the guidance on cost allocation to reflect recent developments in air navigation services organization and charging practices. Accordingly, an alternative to the traditional service categories was developed for cost allocation purposes and is included in paragraphs 6.47 to 6.52 of the *Manual on Air Navigation Services Economics* (Doc 9161).

1.2 This paper discusses the categorization of services based on the portions of airspace and on the phase of a flight and its implications on the charging system.

2. DISCUSSION

2.1 The allocation of costs has traditionally followed the categorization of services provided in Appendix 2 of *ICAO's Policies on Charges for Airports and Air Navigation Services* (Doc 9082), that is, dividing air traffic control service into aerodrome control service, approach control service and area control (en route) service. Paragraph 38 of Doc 9082 recommends that the costs of air navigation services provided during the approach and aerodrome phase of aircraft operations should be identified separately.

2.2 In contrast, the alternative categorization of services breaks down air traffic control service into five categories based on the portions of airspace and on the phase of flight. The alternative service categories consist of: tower service; radar approach/terminal area service; en-route lower airspace service; en-route upper airspace service; and oceanic service. The objective of this categorization is to enhance transparency and cost-relatedness.

2.3 Adopting the alternative service categories for cost allocation could also result in changes in the charging structure by air navigation services providers (ANSPs). While under the traditional categorization there are usually two separate charges only (i.e. approach/aerodrome control charges and en-route charges), the alternative service categorization would enable ANSPs to diversify their charging structures according to the alternative service categories. This may lead to a reduction in cross-subsidies among different categories of users and types of aircraft and a more efficient use of resources.

2.4 One possibility would be the introduction of zone charges or differential charges, i.e. separate en-route charges for the upper and lower airspace, or for oceanic airspace¹. Compared with a single en-route charge based on the traditional categorization and levied on a per State or Flight Information Region (FIR) basis, the application of higher charges for the lower airspace and lower charges for the upper airspace might be more cost-reflective. This is because the resources required for the provision of services in the upper airspace are generally less onerous than those required for the lower airspace with a lot of climbing/descending traffic. Especially in congested or complex airspace, zone charges may facilitate a more efficient use of the airspace through clearer pricing signals to users.

2.5 The use of the alternative categorization of services and the corresponding zone charges has, however, a number of issues that need to be addressed. Firstly, the allocation of costs would become a more complex exercise in some instances, thereby increasing the administrative cost. Secondly, zone charges have the potential risk of creating operational concerns that could result in users adopting inefficient routings to avoid expensive airspace. Thirdly, charging a higher rate for the lower airspace may discourage users at the margin, and it might be perceived as unfair by those who have little choice but to operate in the lower airspace.

2.6 In addition, the way costs are allocated on an international basis vary significantly and under some circumstances it would not be appropriate to introduce zone charges. As noted in paragraph 39 ii) of Doc 9082, it is for each State to decide for itself whether, when, and at what level any air navigation services charges should be imposed. Ultimately, it will be for the State and its ANSP to decide, depending on their circumstances, whether to introduce zone charges after consulting with all interested parties.

¹ The recent European Commission's Regulation (EC) No. 1794/2006 on a common charging scheme for air navigation services recognizes the concept of charging zones. In addition, the Regulation makes specific allowance for States to devise a separate charging zone for service provided in "complex terminal areas".

2.7 In order for States and their service providers to assess the pros and cons of using the alternative categorization of services and zone charges, an update of the current guidance material on cost allocation in Doc 9161 is necessary.

3. **CONCLUSIONS**

3.1 From the foregoing discussion, the following conclusions may be drawn:

- a) States may consider using the alternative categorization of services and the corresponding zone charges, depending on their particular circumstances, for example in congested or complex airspace, in order to achieve a more cost-related charging system and an efficient use of resources.
- b) ICAO should expand the guidance material on cost allocation between portions of airspace and/or phases of flight, as well as develop new guidance material on zone charges.

4. **ACTION BY THE CONFERENCE**

4.1 The Conference is invited to review and adopt the conclusions in paragraph 3.1.

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