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DIRECTORATE-GENERAL FOR ENERGY AND TRANSPORT  
DIRECTORATE F - Air Transport  
**Air Traffic Management and Airports**

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Item 3

SINGLE SKY COMMITTEE

14 April 2005

**DRAFT COMMISSION REGULATION LAYING DOWN A COMMON CHARGING  
SCHEME FOR AIR NAVIGATION SERVICES**

- Submitted by the European Commission -

According to Article 15(4) of Regulation (EC) No 550/2004 (The “service provision Regulation”) the Commission is required to establish a common charging scheme for air navigation services throughout the European Community.

This initial draft is submitted to the Single Sky Committee for presentation by the Commission and for a first exchange of views.

The Commission intends to request the formal opinion of the SSC before the Summer on the basis of a revised version in accordance with the regulatory procedure.



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, XX.XX.2005  
C(2005) XXXX

Draft

**COMMISSION REGULATION**

**laying down a common charging scheme for air navigation services**

DRAFT

**COMMISSION REGULATION (EC) N°.../...**

**of [...]**

**laying down a common charging scheme for air navigation services**

**(Text with EEA relevance)**

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Regulation (EC) No 550/2004 of the European Parliament and of the Council on the provision of air navigation services in the single European sky (the service provision Regulation)<sup>1</sup>, and in particular Article 15(4) thereof;

Whereas:

- (1) The Commission is required to establish a common charging scheme for air navigation services throughout the European Union. A Regulation providing direct application is the most suitable instrument for this purpose in order to guarantee uniform application of the common charging scheme in the single European Sky.
- (2) The development and implementation of an efficient and cost-effective common charging scheme for air navigation services provided during all phases of flight is of the utmost importance for the implementation of the single European sky. The system should contribute to the achievement of greater transparency with respect to the determination, imposition and enforcement of charges to airspace users, that encourage the safe, efficient and effective provision of air navigation services with a view to a high level of safety and to cost efficiency and that stimulate integrated service provision.
- (3) The common charging scheme should be consistent with article 15 of the 1944 ICAO Chicago Convention on International Civil Aviation and with the Eurocontrol Route Charges System.
- (4) The charging scheme should allow the optimum use of airspace, taking into account air traffic flows, in particular within functional airspace blocks as established in accordance with Article 5 of Regulation (EC) No 551/2004 of the European Parliament and of the Council on the organisation and use of the airspace in the single European sky (the airspace Regulation)<sup>2</sup>.

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<sup>1</sup> OJ L 96, 31.3.2004, p. 10.

<sup>2</sup> OJ L 96, 31.3.2004, p. 20.

- (5) It is necessary to establish requirements for complete and transparent information to be made available in due time to associations representing airspace users and the competent authorities.
- (6) Charges should provide Member States and air navigation service providers with sufficient revenues to meet their public service obligations as well as those under the 1944 Chicago Convention on International Civil Aviation.
- (7) The level of charges imposed in particular on light aircraft should not discourage the use of facilities and services necessary for safety or the introduction of new techniques and procedures.
- (8) The charging formula for terminal air navigation services should reflect the different nature of services as compared to en-route air navigation services.
- (9) Specific common projects, which would benefit from funding on the basis of air navigation charges with a view to improving collective infrastructures, and the associated financing modalities should be identified under separate instruments.
- (10) In order to improve the efficiency of the charging scheme and to reduce the administrative and accounting workload, Member States should consider participating to a joint collection Organisation such as Eurocontrol.
- (11) It is important to reinforce the legal means necessary to ensure the prompt and full payment of air navigation charges by airspace users.
- (12) The establishment and imposition of charges on airspace users, following consultation with them, should be fair and transparent and be reviewed by the national supervisory authorities on a regular basis.
- (13) Member States should be allowed to nominate or establish as national supervisory authority under this Regulation the same body or bodies nominated or established in accordance with Article 4 of Regulation (EC) 549/2004 of the European Parliament and of the Council laying down the framework for the creation of the single European sky (the framework Regulation)<sup>3</sup>.
- (14) The measures provided for in this Regulation are in accordance with the opinion of the Single Sky Committee,

HAS ADOPTED THIS REGULATION:

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<sup>3</sup> OJ L 96, 31.3.2004, p. 1.

# Chapter I

## GENERAL PROVISIONS

### *Article 1*

#### **Objective and scope**

1. This Regulation lays down the necessary measures for the development of a charging scheme for air navigation services.
2. This Regulation shall apply to air navigation services provided by air traffic service providers designated in accordance with Article 8 of Regulation (EC) No 550/2004 and by providers of meteorological services, if designated in accordance with Article 9(1) of that Regulation, for and directly related to general air traffic within the ICAO EUR and AFI regions where Member States are responsible for the provision of air navigation services.
3. Member States may apply this Regulation to air navigation services provided in airspace under their responsibility within other ICAO regions, on condition that they inform the Commission and the other Member States thereof.
4. Member States may decide not to apply this Regulation to air navigation services provided at aerodromes with less than 10.000 commercial air transport movements per year (counted as the sum of take-offs and landings), regardless of the maximum take off mass and the number aircraft seats used, the number of movements being calculated as the average over the previous three years. They shall inform the Commission thereof.

### *Article 2*

#### **Definitions**

For the purpose of this Regulation, the definitions of Article 2 of Regulation (EC) No 549/2004 shall apply.

In addition the following definitions shall apply:

1. “IFR” means Instrument Flight Rules, as defined in Annex 2 of the 1944 Chicago Convention on International Civil Aviation (Ninth Edition – July 1990).
2. “VFR” means Visual Flight Rules, as defined in Annex 2 of the 1944 Chicago Convention on International Civil Aviation (Ninth Edition – July 1990).
3. “En-route charging zone” means a volume of airspace from the ground to upper airspace for which a single cost base and unit rate are established.
4. “Terminal charging zone” means the volume of airspace surrounding an aerodrome or a group of aerodromes for which a single cost base and unit rate are established.

5. “Search and Rescue services” means any permanent civil establishment of equipment and personnel maintained for the purposes of providing search and rescue services to aviation.
6. “Commercial air transport movement” means any aircraft operation involving the transport of passengers, cargo or mail for remuneration or hire.
7. “Common projects” means projects designed to assist specific categories of airspace users and/or air navigation services providers in order to improve collective air navigation infrastructures, the provision of air navigation services and the use of airspace.

### *Article 3*

#### **Principles of the charging scheme**

1. The charging scheme shall cover all the costs incurred either directly or indirectly to provide air navigation services. It shall ensure their financing by means of en-route charges and terminal charges imposed on the airspace users, without prejudice to the financing of exemption of certain airspace users or to cross subsidies, in accordance with Community law.
2. Associations representing airspace users shall be guaranteed full transparency and involvement on the establishment of the costs and on the allocation of the costs among different categories of airspace users.

### *Article 4*

#### **Establishment of Charging Zones**

1. Member States shall establish charging zones in the airspace falling under their responsibility where air navigation services are provided to airspace users.
2. The charging zones of airspace shall be defined in consistency with air traffic control operations and services.
3. If charging zones extend across the airspace of more than one Member States, the Member States concerned shall make the appropriate arrangements to ensure compliance with this Regulation. They shall notify the Commission thereof.
4. A functional airspace block established in accordance with Article 5(2) of Regulation (EC) No 551/2004 shall be contained in one en-route charging zone at least 24 months after the establishment of the agreement or the declaration referred to in Article 5(4) of that Regulation and at the latest on 31 December 2008.

## **Chapter II**

### **THE COSTS OF AIR NAVIGATION SERVICE PROVISION**

#### *Article 5*

##### **Eligible services and activities**

1. Air navigation service providers shall establish the costs incurred to provide air navigation services in relation to the facilities and services provided for and implemented under the ICAO Regional Air Navigation Plan, European Region, in the charging zones under their responsibility.

Those costs shall include administrative overheads, training, studies, tests and trials as well as research and development allocated to these services.

The costs incurred for search and rescue services provided to aviation may be added.

2. Member States may establish the costs of regulation, supervision and administration in relation with the provision of air navigation services.

Those costs may include:

- (a) the costs incurred by the National supervisory authorities,
  - (b) the costs incurred by the recognised organisations, as referred to in Article 3 of Regulation (EC) No 550/2004,
  - (c) the costs stemming from international agreements in relation with the provision of air navigation services, and
  - (d) administrative overheads, training, studies, tests and trials as well as research and development allocated to these services.
3. The cost of common projects shall be eligible.

#### *Article 6*

##### **Costs of eligible services and activities**

1. The costs of eligible services and activities under Article 5 shall be established in consistency with the accounts referred to in article 12 of the Regulation (EC) No 550/2004 for the period from 1 January to 31 December.
2. The costs referred to in paragraph 1 shall be broken down in staff costs, other operating costs, depreciation costs, cost of capital and exceptional items including non recoverable taxes and custom duties paid, and all other related costs:

- (a) Staff costs shall include gross remuneration, payments for overtime, employers' contributions to social security schemes as well as pension costs and other benefit.
- (b) Other operating costs shall include costs incurred through the purchase of goods and services used to provide air navigation services. They include outsourced services such as communication, external staff such as consultants, material, energy, utilities, rental of buildings, equipment and facilities, maintenance, insurance costs.
- (c) Depreciation costs shall relate to the total fixed assets in operation for air navigation services purposes. Fixed assets shall be depreciated, in accordance with their expected operating life, using the straight-line method applied to historic costs values.
- (d) Cost of capital shall be equal to the product of average net book value of fixed assets in operation or under construction and of the average value of the net current assets that are required for the provision of air navigation services and the weighted average of the interest rate on debts and return on equity. The weight factors shall be based on the proportion of the financing through either debt or equity. The interest rate of debts shall be equal to the average interest rate of debts of the air navigation service provider. The return on equity shall take into account the financial risk of the air navigation service provider, as approved by the national supervisory authority.
- (e) Exceptional items are non-recurring costs in relation to the provision of air navigation services that have occurred in the year.

## *Article 7*

### **Allocation of costs**

1. The costs of eligible services and activities under Article 5 shall be allocated in a transparent way to the charging zone in respect of which they are actually incurred.

Where costs are incurred across different charging zones, they shall be allocated in a proportional way.

2. The cost for terminal charges shall relate to the following services:
  - (a) Aerodrome control services, flight information services including air traffic advisory services, and alerting services;
  - (b) Final approach services using dedicated resources at aerodrome level;
  - (c) Communication, navigation, and surveillance services that are required for landing and take off;
  - (d) Local access to aeronautical information, pre-flight information service and, where applicable, the preparation of any aeronautical information relating to this aerodrome;



- (e) Meteorological services provided at the aerodrome.
  - (f) Search and Rescue services provided at the aerodrome.
3. The air navigation service provider shall separate the costs of air navigation services provided to VFR flights from the costs provided to IFR flight.

#### *Article 8*

#### **Transparency of cost accounting**

Member States and air navigation service providers shall inform national supervisory authorities, associations representing airspace users, the Commission and Eurocontrol of the cost of the services they provide on a regular basis, either individually or collectively, and at least once a year. This information shall be based on the reporting tables and modalities set out in Annex I.

## Chapter III

### THE FINANCING OF AIR NAVIGATION SERVICE PROVISION

#### *Article 9*

#### **Contributors to the financing**

1. Airspace users shall contribute to the financing of the service provision by means of en-route charges and terminal charges.
2. Member States shall exempt from charges:
  - (a) Flights performed by aircraft of which the maximum take-off weight authorised is less than two metric tons;
  - (b) Mixed VFR/IFR flights in the charging zones where they are performed exclusively under VFR and where a charge is not levied for VFR flights;
  - (c) Flights performed exclusively for the transport, on official mission, of the reigning Monarch and his/her immediate family, Heads of State, Heads of Government, and Government Ministers; in all cases, this must be substantiated by the appropriate status indicator on the flight plan;
  - (d) Search and rescue flights authorised by the appropriate competent body.
3. Member States may exempt from charges:
  - (a) Military flights performed by military aircraft of any country;
  - (b) Training flights performed exclusively for the purpose of obtaining a licence, or a rating in the case of cockpit flight crew, and where this is substantiated by an appropriate remark on the flight plan; flights must be performed solely within the airspace of the State concerned; flights must not serve for the transport of passengers and/or cargo, nor for positioning or ferrying of the aircraft;
  - (c) Flights performed exclusively for the purpose of checking or testing equipment used or intended to be used as ground aids to air navigation, excluding positioning flights by the aircraft concerned;
  - (d) Flights terminating at the aerodrome from which the aircraft has taken off and during which no intermediate landing has been made;
  - (e) VFR flights;
4. The costs incurred for exempted flights shall not be taken into account for the calculation of the unit rates.

These costs shall be composed of:

- (a) The cost of exempted VFR flights as identified in Article 7(3) and;
- (b) The costs of exempted IFR flights which shall be calculated as the product of the costs incurred for IFR flights and the proportion of the number of exempted service units and the total number of service units; the cost incurred for IFR flights shall be equal to the total costs less the cost of VFR flights.

Member States shall be responsible for the financing of these costs. They shall take into account for the financing the revenues generated by taxes on fuel used by flights referred to in paragraph 2 (a) and (b) or any specific fees imposed on such aircraft.

#### *Article 10*

### **Calculation of En-Route Charges**

1. The en-route charge for a specific flight in a specific en-route charging zone shall be equal to the product of the unit rate established for this en-route charging zone and the en-route service units for this flight.
2. The unit rate in the en-route charging zone shall be calculated by dividing the forecast number of chargeable en-route service units for the relevant year into the forecast costs for air navigation services, reduced by the cost of exempted flights. Without prejudice to Article 12(2), the forecast costs shall include the balance resulting from over or under recovery of previous years.
3. The en-route service units shall be calculated in accordance with Annex III.

#### *Article 11*

### **Calculation of Terminal Charges**

1. The terminal charge for a specific flight in a specific terminal charging zone shall be equal to the product of the unit rate established for this terminal charging zone and the terminal service units for this flight.
2. The unit rate in the terminal charging zone shall be calculated by dividing the forecast number of chargeable terminal service units for the relevant year into the forecast costs for air navigation services, reduced by the cost of exempted flights. Without prejudice to Article 12(2), the forecast costs shall include the balance resulting from over or under recovery of previous years.
3. The terminal service units shall be calculated in accordance with Annex IV to this Regulation.

#### *Article 12*

### **Incentives**

1. Member States may implement incentive schemes consisting of financial advantages or disadvantages on a non-discriminatory and transparent basis to support improvements in the provision of air navigation services resulting in a different

calculation of charges according to paragraphs 2 and 3. These incentives may apply to either air navigation service providers and/or airspace users.

2. When a Member State decides to implement an incentive scheme on air navigation service providers, it shall, following consultation referred to in Article 16, establish modalities for the setting of unit rates for a period not exceeding five years in order to reflect the performance in terms of safety, quality of service and the level of cooperation with other air navigation service providers in view of taking into account network effects. Air Navigation Service Providers shall be allowed to keep the balance resulting from over recovery provided they reach the objectives.
3. When a Member State decides to implement an incentive scheme on airspace users, it shall, following consultation referred to in Article 16, modulate charges incurred by them in order:
  - (a) to either reflect efforts made to optimizing the use of air navigation services and to reducing the overall costs of these services, in particular by decreasing charges according to airborne equipment that increases capacity or
  - (b) to offset the inconvenience of choosing less congested routings or
  - (c) to promote the use of available airspace or
  - (d) to penalize in the view of penalizing airspace users whose behaviour generates unproportionally high costs for the air transport system as a whole through increased charges.

This modulation shall not exceed 50% of the average charge.

4. National supervisory authorities shall administer the incentive scheme referred to in paragraph 2 and 3.

### *Article 13*

#### **Setting of Unit Rates for Charging Zones**

1. Member States shall set unit rates for each charging zone on an annual basis for a period not exceeding five years. For this purpose, the national supervisory authorities shall assess the actual and forecast costs and service units transmitted by the air navigation service providers for the calculation of these unit rates.
2. In case of unexpected major changes of traffic, unit rates may be amended in the course of the year.
3. Without prejudice to paragraphs 1 and 2, Member States may set their unit rates collectively within a joint collection organization.

## *Article 14*

### **Charging of costs of common projects**

1. The cost of common projects referred to in Article 5(3) shall be financed through specific unit rates, which are added to the calculated unit rates for the relevant charging zones.
2. The specific en-route unit rate shall be calculated by dividing the forecast number of chargeable en-route service units for the relevant year for the defined en-route charging zone into the forecast en-route cost of common projects related to those charging volumes of airspace.
3. The specific terminal unit rate shall be calculated by dividing the forecast number of chargeable terminal service units for the relevant year for the defined terminal charging zone into the forecast terminal cost of common projects related to those charging volumes of airspace.

## *Article 15*

### **Collection of Charges**

1. Member States shall ensure that charges are promptly and fully paid and are collected in a non-discriminatory, effective and timely manner.
2. Where Member States avail themselves of the services of a joint charges collection organisation, the costs related to the management and the operations of this joint charges collection organisation may be recovered through specific unit rates which are added to the calculated unit rates for the relevant charging zones under the management of this joint charges collection organisation.

The en-route unit rate and terminal unit rate shall be calculated in accordance with Article 14(2) and (3).

## *Article 16*

### **Transparency of the charging mechanism**

1. Member States shall consult associations representing airspace users on their charging policy on a regular basis. To this end, they shall provide them with the necessary information on their charging mechanism as set out in Annex II.
2. At the request of one of these associations, Member States shall organise an effective and transparent consultation hearing to present this information as well as the information referred to in article 8, in presence of the air navigation service providers involved if necessary.
3. All documentation shall be put at the disposal of organisation of airspace users, the Commission, Eurocontrol and national supervisory authorities three weeks before the consultation hearing.

## **Chapter IV**

### **FINAL PROVISIONS**

#### *Article 17*

##### **Publicity and appeal**

1. Member States shall make public the reports following consultation referred to in Article 16 and justify their decisions taken.
2. Member States shall ensure that decisions taken pursuant to this Regulation are properly reasoned and are subject to an effective review or appeal procedure.

#### *Article 18*

##### **Facilitation of compliance monitoring**

Air navigation service providers shall facilitate inspections and surveys by the national supervisory authority or by a recognised organisation acting on the latter's behalf, including site visits and visits without prior notice. The authorised persons shall be empowered:

- (a) to examine the relevant accounting documents, asset books, inventories and any other material relevant to the establishment of air navigation charges;
- (b) to take copies of or extracts from such documents;
- (c) to ask for an oral explanation on site;
- (d) to enter relevant premises, lands or means of transport.

Such inspections and surveys shall be carried out in compliance with the procedures in force in the Member State in which they are to be undertaken.

#### *Article 19*

##### **Entry into force**

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply as from 1<sup>st</sup> January 2006.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, [...]

*For the Commission*  
[...]  
*Member of the Commission*

## ANNEX I

### TRANSPARENCY OF THE COST BASE

#### 1. REPORTING TABLE

Member States and air navigation service providers shall fill the following reporting table for each charging zone under their responsibility.

The figures shall be actual figures for year (n-3) until year (n-1) and planned figures for year (n) onwards. Actual costs shall be established on the basis of the certified accounts. Planned costs shall be established in accordance with the business plan required by the certificate.

Costs shall be established in Euros.

**Table 1: TOTAL COSTS**

**Organisation:**

**Charging Zone:**

**Year n:**

	(n-3) A	(n-2) A	(n-1) A	(n) F	(n+1) F	(n+2) P	(n+3) P	(n+4) P	(n+5) P
<b>Detail by nature</b>									
Staff									
Other Operating Costs									
Depreciation									
Cost of Capital									
Exceptional items									
<b>Total costs</b>									
<b>Detail by services</b>									
Air Traffic Management									
Communication									
Navigation									
Surveillance									
Search and Rescue									
Aeronautical Information									
Meteorological services									
Supervision costs									
Other State costs									
<b>Total costs</b>									



(n-3) A	(n-2) A	(n-1) A	(n) F	(n+1) F	(n+2) P	(n+3) P	(n+4) P	(n+5) P
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**Complementary information on the exchange rate of the national currency with the Euro.**

Exchange rate (1 EUR =)								
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(n-3) A	(n-2) A	(n-1) A	(n) F	(n+1) F	(n+2) P	(n+3) P	(n+4) P	(n+5) P
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**Complementary information on the cost of capital**

Average operating capital								
Of which, average long term assets								
Cost of capital before tax (%)								
Return on equity (%)								
Average interest of debts (%)								

## 2. ADDITIONAL INFORMATION

In addition, Member States and air navigation service providers shall provide the following information:

- Description of the methodology used for allocating costs of facilities or services between different air navigation services based on the list of facilities and services listed in ICAO Regional Air Navigation Plan, European Region (Doc 7754) and description of the methodology used for allocating those costs between different charging zones;
- Justification of differences between planned and actual figures for year (n-1);
- Justification of the five-year planned costs based on the business plan;
- Detail of the costs incurred by Member States (“Other State costs”);
- Justification for the cost of capital, including the components of the asset base;
- Detail of the cost for each aerodrome for each terminal charging zone;
- Breakdown of the meteorological costs between direct costs and “MET core costs” defined as the costs of supporting meteorological facilities and services that also serve meteorological requirements in general. These include general analysis and forecasting, weather radar and satellite observations, surface and upper-air observation networks, meteorological communication systems, data-processing centres and supporting core research, training and administration. Justification of the methodology used for allocating MET core costs to civil aviation and between charging zones.

## ANNEX II

### CHARGING MECHANISM

#### 1. REPORTING TABLE

Member States shall fill the following reporting table for each charging zone under their responsibility. When a charging zone extends across the airspace of more than one Member State, they shall fill the table jointly in accordance with the arrangements referred to in Article 5(3).

The figures shall be actual figures for year (n-3) until year (n-1) and planned figures for year (n) onwards. The “Total costs” shall be established as the sum of all total costs presented in Table 1 which are allocated to this charging zone.

**Table 2: UNIT RATE CALCULATION**

Organisation(s):

Charging Zone:

Year n:

	(n-3) A	(n-2) A	(n-1) A	(n) F	(n+1) F	(n+2) P	(n+3) P	(n+4) P	(n+5) P
<b>Unit Rate (in Euros)</b>									
Total costs (1)									
Costs of exempted flights									
Amounts carried over to year (n)									
Total service units									
Chargeable service units									
Unit rate									

(1) As the sum of all total costs presented in Table 1 which are allocated to this charging zone.

	(n-3) A	(n-2) A	(n-1) A	(n) F	(n+1) F	(n+2) P	(n+3) P	(n+4) P	(n+5) P
<b>Unit Rate (in national currency)</b>									
Exchange rate (1 EUR =)									
Unit Rate									

	(n-3) A	(n-2) A	(n-1) A	(n) F	(n+1) F	(n+2) P	(n+3) P	(n+4) P	(n+5) P
<b>Balance to be carried over (in national currency)</b>									
Charges billed to users									
Actual total costs									
Actual costs of exempted flights									
Amounts carried over to year (n)									
Balance of year (n)									

## **2. ADDITIONAL INFORMATION**

In addition, the Member States concerned shall the following information:

- Justification of the establishment of the different charging zones, in particular with regard to terminal charging zones and potential cross-subsidies between aerodromes;
- Justification of the calculation of the forecast chargeable service units;
- Description and justification of the methodology used to with respect to the recovery of the balance resulting from over or under recovery of previous years;
- Justification of the choices related to the policy on exemptions and description of the financing means to cover the related costs;
- Description and justification of incentives applied on air navigation service providers and, in particular, the modalities to be applied in setting regulatory conditions on the level of unit rates. Description and justification of the objectives in term of performance set by the National Supervisory Authority and on the modalities to take them into account in the setting of maximum unit rates;
- Description and justification of the plans of air navigation service providers in order to meet projected demand and performance objectives.
- Description and justification of incentives applied on airspace users;

### **ANNEX III**

#### **CALCULATION OF THE EN ROUTE SERVICE UNITS**

1. The en-route service unit shall be calculated as the multiplication of the distance factor and the weight factor for the aircraft concerned.
2. The distance factor shall be obtained by dividing by one hundred the number of kilometres flown in the great circle distance between the entry and the exit point of the charging volume, according to the latest known flight plan filed by the aircraft concerned for air traffic flow purposes.
3. If the exit and entry point of one flight are identical in a charging volume, the distance factor shall be equal to the distance in the great circle distance between these points and the most distant point of the flight plan.
4. The distance to be taken into account shall be reduced by 20 kilometres for each take-off from and for each landing on the territory of a Member State.
5. The weight factor, expressed as a figure taken to two decimal places, shall be the square root of the quotient obtained by dividing by fifty the number of metric tons in the highest maximum certified take-off weight of the aircraft.

### **ANNEX IV**

#### **CALCULATION OF THE TERMINAL SERVICE UNITS**

1. The terminal service unit shall be equal to the weight factor for the aircraft concerned.
2. The weight factor, expressed as a figure taken to two decimal places, shall be the quotient, obtained by dividing by fifty the number of metric tons in the highest maximum certified take-off weight of the aircraft, to the power of 0.7. However, in a transitional period of two years, this exponent shall be comprised between 0.5 and 0.9. For this purpose, an average shall be taken by type of aircraft certified.