Doc 9082

ICAO's Policies on Charges for Airports and Air Navigation Services

Approved by the Council
and published by its decision

Ninth Edition — 2012

International Civil Aviation Organization

Doc 9082

ICAO's Policies on Charges for Airports and Air Navigation Services

Approved by the Council
and published by its decision

Ninth Edition — 2012

International Civil Aviation Organization

Published in separate English, Arabic, Chinese, French, Russian
and Spanish editions by the
INTERNATIONAL CIVIL AVIATION ORGANIZATION
999 University Street, Montréal, Quebec, Canada H3C 5H7

For ordering information and for a complete listing of sales agents
and booksellers, please go to the ICAO website at www.icao.int

Sixth edition 2001
Seventh edition 2004
Eighth edition 2009
Ninth edition 2012

Doc 9082, *ICAO's Policies on Charges for Airports and Air Navigation Services*
Order Number: 9082
ISBN 978-92-9231-953-3

© ICAO 2012

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, without prior permission in writing from the International Civil Aviation Organization.

AMENDMENTS

Amendments are announced in the supplements to the *Catalogue of ICAO Publications;* the Catalogue and its supplements are available on the ICAO website at www.icao.int. The space below is provided to keep a record of such amendments.

RECORD OF AMENDMENTS AND CORRIGENDA

AMENDMENTS		
No.	Date	Entered by

CORRIGENDA		
No.	Date	Entered by

TABLE OF CONTENTS

Foreword ..... *(vii)*

Section I. General **I-1**

Council I-1
Scope and proliferation of charges I-1
Organizational and managerial issues I-1
Autonomy and privatization I-1
International cooperation I-2
Best practices I-2
Charges collection I-2
Economic oversight I-2
Economic performance and minimum reporting requirements I-3
Consultation with users I-3
Charges I-3
Airport and air navigation services planning I-3
Consultation process I-4
First-resort mechanism I-4
Pre-funding of projects I-4
Currency issues I-5

Section II. ICAO's policies on airport charges **II-1**

The cost basis for airport charges II-1
Airport charging systems II-2
Landing charges II-3
Parking and hangar charges II-3
Passenger service charges II-3
Security charges II-3
Noise-related charges II-4
Emissions-related aircraft charges to address local air quality (LAQ) problems at or around airports II-4
Development of revenues from concessions, rental of premises and "free zones" II-6
Fuel concession fees II-6

Section III. ICAO's policies on charges for air navigation services **III-1**

The cost basis for air navigation services charges III-1
Allocation of costs of air navigation services among aeronautical users III-2
Air navigation services charging systems III-2
Approach and aerodrome control charges III-3
Route air navigation services charges III-3
Charges for air navigation services used by aircraft when not over the provider State III-4

Appendix 1. Guide to the facilities and services to be taken into account in determining airport costs A1-1

Appendix 2. Guide to the facilities and services to be taken into account in determining the total costs of air navigation services A2-1

Appendix 3. Glossary of terms A3-1

FOREWORD

1. *ICAO's Policies on Charges for Airports and Air Navigation Services* contain the recommendations and conclusions of the Council resulting from ICAO's continuing study of charges in relation to the economic situation of airports and air navigation services provided for international civil aviation. The policies, which are intended for the guidance of Contracting States, are mainly based on the recommendations made in this field by the various conferences on the economics of airports and air navigation services, which are held regularly by ICAO. The last such conference took place in Montréal from 15 to 20 September 2008 (*Report of the Conference on the Economics of Airports and Air Navigation Services (CEANS)* (Doc 9908) refers). As per a recommendation adopted by CEANS and endorsed by the ICAO Council, States are encouraged to incorporate the four key charging principles of non-discrimination, cost-relatedness, transparency and consultation with users into their national legislation, regulation or policies, as well as into their future air services agreements, in order to ensure compliance by airport operators and air navigation services providers (ANSPs).

2. ICAO's commitment in the field of airport and air navigation services charges has its principal origin in Article 15 — *Airport and similar charges*, of the *Convention on International Civil Aviation*. This commitment has found further expression in the Organization's *Consolidated Statement of Continuing ICAO Policies in the Air Transport Field*, which is updated at each regular Session of the Assembly; currently, in Resolution A37-20, Appendix F — *Airports and air navigation services*, the Assembly, inter alia, requests the Council to ensure that the guidance and advice contained in Doc 9082 are current and responsive to the requirements of Contracting States.

3. The Council wishes to draw attention to the distinction between the policies contained in this document, which concern airport and air navigation services charges only, the policies on customs duty in Article 24 of the *Convention on International Civil Aviation*, and the Council's policies and guidance on taxation set out in *ICAO's Policies on Taxation in the Field of International Air Transport* (Doc 8632), which address taxation of fuel, lubricants and other consumable technical supplies, as well as taxation of income of international air transport enterprises and aircraft and other moveable property; and taxes on the sale and use of international air transport. As considered by the Council, a charge is a levy that is designed and applied specifically to recover the costs of providing facilities and services for civil aviation, and a tax is a levy that is designed to raise national or local government revenues, which are generally not applied to civil aviation in their entirety or on a cost-specific basis.

4. The financial situation of airports and of ANSPs, as well as of their primary users, fluctuates with the performance of global, national and regional economies. Airports and ANSPs have a high proportion of fixed costs, mainly funded by traffic, and therefore in times of decreased demand are challenged to maintain high standards of safety, security and quality of service. Aircraft operators seek to reduce the charges they pay. It is recognized that it is difficult to reconcile the long-term planning horizon of airports and ANSPs with the shorter-term requirements of aircraft operators. Therefore, a mutual understanding between providers and users is important in addressing these challenges.

5. A number of factors exert an important influence on the organization and economic development of airports and air navigation services. These include the growing liberalization of air services, air carrier concentration including mergers and alliances, changes in approaches to financing with airports (in particular) and ANSPs being expected to assume primary responsibility for financing investments in their infrastructure requirements, capacity management and environmental concerns.

6. The number of autonomous entities operating airports or air navigation services is expected to increase. This is resulting in more situations where an airport is operated by a different entity from that providing air navigation services (both approach/aerodrome control and route air navigation services). Also, additional resources will be required to deal with the problem of airport and airspace congestion, and to implement satellite-based communications,

navigation and surveillance (CNS) and air traffic management (ATM) systems, based on the ICAO Global ATM Operational Concept, as well as other multinational facilities and services.

7. Under these circumstances many airports and ANSPs may find it necessary to increase their charges and, in the case of airports, place greater emphasis on further developing revenues from non-aeronautical sources. However, recognizing that users face restrictions with regard to their choice of particular airports and of routes to be flown, it is recommended that caution be exercised when attempting to compensate for shortfalls in revenue and that account be taken of the effects of increased charges on aircraft operators and end-users.

8. There should be a balance between the respective interests of airports and ANSPs on one hand and of aircraft operators and end-users on the other, in view of the importance of the air transport system to States and its influence in fostering economic, cultural and social interchanges between States. This applies particularly during periods of economic difficulty. It is therefore recommended that States encourage increased cooperation between airports and ANSPs and aircraft operators to ensure that the economic difficulties facing them all are shared in a reasonable manner.

9. The problems involved in providing and maintaining the airport and air navigation facilities and services required by the Regional Air Navigation Plans are particularly difficult for the less advanced economies, principal among these problems being the limited financial resources available for economic development in general, the higher priority assigned to other sectors of the economy whose needs are considered more urgent, the under utilization of airports and air navigation services, the high cost of obtaining equipment from other States and the difficulties in recruiting and retaining sufficient numbers of qualified personnel. The Council will continue to take appropriate action towards obtaining more assistance for the States concerned in planning and financing airport and air navigation infrastructure as well as with regard to the provision of adequate human resources.

10. Further to a suggestion arising from the 2008 Conference (CEANS), the ICAO Secretariat collects information from States on their implementation of the principles applicable to charges for airports and air navigation services, as set out in the present document. This information is published on the ICAO website (http://www.icao.int) in the form of a supplement to this document and is updated from time to time.

11. A glossary of terms as used in the present policies on charges is contained in Appendix 3. To assist States in the implementation of the policies, the ICAO Secretariat has developed and maintains two manuals: the *Airport Economics Manual* (Doc 9562) and the *Manual on Air Navigation Services Economics* (Doc 9161). Parallel Assembly and Council policy on the regulation of air carriers is contained in *Policy and Guidance Material on the Economic Regulation of International Air Transport* (Doc 9587), which is similarly complemented by a *Manual on the Regulation of International Air Transport* (Doc 9626). ICAO collects and publishes information on aeronautical charges worldwide in *Tariffs for Airports and Air Navigation Services* (Doc 7100), while traffic and financial data for airports and air navigation services are collected through statistical forms and periodic surveys that are published on ICAO's websites (http://www.icao.int and http://www.icaodata.com, respectively).

SECTION I. GENERAL

Council

1. The Council strongly encourages States to apply the following policies regarding charges for airports and air navigation services.

Scope and proliferation of charges

2. It is recommended that States:

i) Permit the imposition of charges only for services and functions which are provided for, directly related to, or ultimately beneficial for, civil aviation operations; and

ii) Refrain from imposing charges which discriminate against international civil aviation in relation to other modes of international transport.

3. In this regard the Council is concerned about the proliferation of charges on air traffic and notes that the imposition of charges in one jurisdiction can lead to the introduction of charges in another jurisdiction.

Organizational and managerial issues

Autonomy and privatization

4. Experience gained worldwide indicates that where airports and air navigation services are operated by autonomous entities their overall financial situation and managerial efficiency have generally improved. Such autonomous entities were established by governments, although many, in particular airports, have since been transferred partly or completely to private enterprises.

5. It is therefore recommended that where this is economically viable and in the best interest of providers (airports and ANSPs) and users, States consider establishing autonomous entities to operate their airports or air navigation services, recognizing that in some circumstances a single entity may operate both airports and air navigation services, and that the entity may be in the form of an autonomous civil aviation authority.

6. When considering the commercialization or privatization of airports and ANSPs, States should bear in mind that they are ultimately responsible for safety, security and economic oversight of these entities.

7. Whenever an autonomous entity is established, whether by a government or by private interests, to operate an airport(s) and/or provide air navigation services, the State should ensure that all relevant obligations of the State specified in the Convention on International Civil Aviation, its Annexes and in air services agreements are complied with and that ICAO’s policies are observed.

International cooperation

8. International cooperation is encouraged through a regional approach in the provision and operation of air navigation services where this is beneficial for the providers and users concerned and with a view to facilitating the efficient and cost-effective implementation of the ICAO Global ATM Operational Concept on the basis of the guidance provided in the *Global Air Navigation Plan* (Doc 9750). (See also Foreword, paragraph 6, and Section I, paragraph 11.)

Best practices

9. States should ensure the use of best practices of good corporate governance for airports and ANSPs, as applicable. Consideration should be given to: objectives and responsibilities of the entities; shareholders' rights; responsibilities of the board; role and accountability of management; relationship with interested parties; and disclosure of information.

10. In order to promote transparency, efficiency and cost-effectiveness in the provision of an appropriate quality of services and facilities, airports and ANSPs should apply management best practices in all areas of their business.

Charges collection

11. States should ensure that a legal framework for the collection of charges is in place. Airports and ANSPs or, where applicable, a State, should have an effective system for the collection of charges. Accounting systems must be precise and invoicing accurate. The system should also include credit control and enforceable recovery procedures. It is recommended that the entity responsible for air navigation services consider participating in joint charges collection when it is advantageous.

Economic oversight

12. States' exercise of their economic oversight responsibilities should be clearly separated from the operation and provision of airports and air navigation services, with roles and powers clearly defined for each function.

13. The main purpose of economic oversight should be to achieve a balance between the interests of airports and ANSPs, including government-operated providers, and those public policy objectives that include, but are not limited to, the following:

i) Minimize the risk of airports and ANSPs engaging in anti-competitive practices or abusing any dominant position they may have;

ii) Ensure non-discrimination and transparency in the application of charges;

iii) Ascertain that investments in capacity meet current and future demand in a cost-effective manner; and

iv) Protect the interests of passengers and other end-users.

To promote these objectives, consistent with the form of economic oversight adopted, States should ensure that airports and ANSPs consult with users and that appropriate performance management systems are in place.

14. States should adopt an approach to economic oversight that meets their specific circumstances. The degree of competition between providers, the costs and benefits of different forms of oversight, as well as the legal,

institutional and governance frameworks should be taken into consideration when selecting the appropriate approach. Regulatory interventions should be used only when required and kept to a minimum.

15. States should consider adopting a regional approach to economic oversight where individual States lack the adequate capacity to perform their economic oversight responsibilities.

Economic performance and minimum reporting requirements

16. Performance management is an important management tool for providers, users and regulators. Consistent with the form of economic oversight adopted, States should ensure that providers develop and implement appropriate performance management systems that include:

i) Defining performance objectives with the purpose, as a minimum, to continuously improve performance in four key performance areas (KPAs), i.e. safety, quality of service, productivity and cost-effectiveness, it being understood that States may choose additional KPAs according to their objectives and their particular circumstances;

ii) Selecting and reporting at least one relevant performance indicator and its target for each of the KPAs selected;

iii) Using the results to evaluate and improve performance; and

iv) Undertaking consultations with users and other interested parties to achieve a mutual understanding and consensus, where appropriate, on performance objectives, level of performance targets and plans to achieve the targets.

Consultation with users[1]

Charges

17. Consultation with airport and air navigation services users before changes in charging systems or levels of charges are introduced is important.

18. The purpose of consultation is to ensure that the provider gives adequate information to users relating to the proposed changes and gives proper consideration to the views of users and the effect the charges will have on them. Agreement between providers and users is desirable. However, where agreement is not reached, the provider is free to impose the charges proposed, subject to a right of appeal to, or other determination by, a body independent of the provider, where available. If no appeal mechanism is in place, it is even more important that providers and users make every effort to reach an agreement on any changes in charging systems or levels of charges before they are introduced.

Airport and air navigation services planning

19. Users or their representative organizations should also be consulted concerning capacity development and investment plans. The purpose of such consultation is to ensure that the developments proposed meet current and future capacity requirements, and that users are aware of the potential financial implications. Similarly, in order to

1. Consultation with users should cover all aspects of charges contained in this policy document where there are principles referring to consultation(s).

facilitate the planning process, users, particularly aircraft operators, should provide advance planning data to individual providers on a five- to ten-year forecast basis. Such data should include future types, characteristics and numbers of aircraft expected to be used, the anticipated growth of aircraft movements, and passengers and cargo to be handled.

20. Commercially sensitive data disclosed by any party should be properly protected so as not to discourage effective consultation.

Consultation process

21. Where there are no provider/users cooperative arrangements in place that are acceptable to all parties concerned, States are encouraged to ensure that a clearly defined, regular consultation process is established with users by providers. Specific procedures for effective consultation should be determined on a case-by-case basis taking into account the form of economic oversight adopted by the State. The procedures at individual airports and airspace will also need to take into account the size and scale of the airport's and the ANSP's activities. Subject to these considerations, it is recommended that:

i) When a revision of charges or the imposition of new charges is contemplated by a provider or other competent entity, appropriate notice should normally be given to users or their representative organizations at least four months in advance, in accordance with the rules and regulations applicable in each State.

ii) In any such revision of charges, or imposition of new charges, the users should be given the opportunity to submit their views and consult with the provider or other competent entity. Users should be provided with transparent and appropriate financial, operational and other relevant information to allow them to make informed comments.

iii) Reasonable advance notice, of at least one month, of the final decision on any revision of charges or imposition of new charges should be given to the users. This one-month period does not need to be in addition to the four months prescribed in i) above.

iv) Consultations, in general, should make clear the nature of proposals, the parties most likely to be affected, the specific questions on which feedback is requested, and the time schedule for responses. All interested parties should be given the opportunity to present their views. Decision documents should provide the rationale for the decision taken.

First-resort mechanism

22. In the interest of airports, ANSPs and users, there may be a need for a neutral party at the national level to pre-empt and resolve disputes on charges before they enter the international arena. Such a first-resort mechanism should be flexible, with focus on conciliation or mediation but with the possibility of arbitration if the State concerned so decides. The mechanism, if required, should be established in a manner consistent with the form of economic oversight adopted.

Pre-funding of projects

23. Pre-funding of projects through charges should not be used to fully recover costs in advance of commissioning of new airport or air navigation facilities or infrastructure but may be accepted in specific circumstances, after having allowed for possible contributions from non-aeronautical revenues, where this can assist in financing long-term, large-scale investment, provided that strict safeguards are in place, including the following:

i) Effective and transparent economic oversight of charges and the related provision of services, including performance management;

ii) Comprehensive and transparent accounting, with assurances that resulting charges are, and will remain, earmarked for civil aviation services or projects;

iii) Advance, transparent and substantive consultation by providers and, to the greatest extent possible, agreement with users regarding significant projects being pre-funded; and

iv) Application for a limited period of time with users benefiting from lower charges and from smoother transition in changes to charges than would otherwise have been the case once new facilities or infrastructure are in place.

Currency issues

24. It is recommended that:

i) Under normal circumstances, airport and air navigation services charges be expressed and payable in the local currency of the State concerned;

ii) Under special circumstances, for example, where economic conditions are not stable, when a State proposes, or allows, denomination of charges in other than local currency, aircraft operators could apply the same currency of denomination, using the same exchange rate, for their local ticket sales;

iii) Every effort be made to remove obstacles preventing an aircraft operator based in one State from transferring in convertible currency its net income from sales in another State; and

iv) In the case of charges that are billed on a regional basis (i.e. on behalf of several States or by a jointly operated agency), it may be advantageous to both providers and users to denominate and pay charges in a single convertible currency[2].

2. Further aspects of currency conversion, remittance of earnings and payment of local expenses are contained in *Policy and Guidance Material on the Economic Regulation of International Air Transport* (Doc 9587).

SECTION II. ICAO'S POLICIES ON AIRPORT CHARGES

The cost basis for airport charges

1. As a general principle it is desirable, where an airport is provided for international use, that the users shall ultimately bear their full and fair share of the cost of providing the airport. It is therefore important that airports maintain accounts that provide information adequate for the needs of both airports and users, and that the facilities and services related to airport charges be identified as precisely as possible. In determining and allocating the total cost to be met by charges on international air services, the list in Appendix 1 may serve as a general guide to the facilities and services to be taken into account. Airports should maintain accounts that provide a satisfactory basis for determining and allocating the costs to be recovered, should publish their financial statements on a regular basis, and should provide appropriate financial information to users in consultations[1]. Moreover, it is recommended that States consider the application by airports, where appropriate, of internationally accepted accounting standards.

2. In determining the cost basis for airport charges, the following principles should be applied:

i) The cost to be allocated is the full cost of providing the airport and its essential ancillary services, including appropriate amounts for cost of capital and depreciation of assets, as well as the costs of maintenance, operation, management and administration. Consistent with the form of economic oversight adopted, these costs may be offset by non-aeronautical revenues.

ii) In general, aircraft operators and other airport users, including end-users, should not be charged for facilities and services they do not use, other than those provided for and implemented under the Regional Air Navigation Plan.

iii) Only the cost of those facilities and services in general use by international air services should be included, and the cost of facilities or premises exclusively leased or occupied and charged for separately should be excluded.

iv) While airports should maintain cost data in sufficient detail to facilitate consultation, transparency and economic oversight, it may be beneficial to develop more aggregated cost bases in certain circumstances for the purpose of setting charges. However, the aggregation should be done in a logical and transparent manner accompanied by safeguards, as appropriate, regarding consultation and, where possible, agreements with users to avoid discrimination among users.

v) An allocation of costs should be considered in respect of space or facilities utilized by government authorities.

vi) The proportion of costs allocable to various categories of users, including State aircraft, should be determined on an equitable basis, so that no users shall be burdened with costs not properly allocable to them according to sound accounting principles.

vii) Costs related to the provision of approach and aerodrome control should be separately identified. (Principles applicable to the recovery of such costs are addressed in Section III, paragraph 7.)

1. Guidance on accounting contained in the *Airport Economics Manual* (Doc 9562) may be found useful in this context, although there are other approaches.

viii) Airports may produce sufficient revenues to exceed all direct and indirect operating costs (including general administration, etc.) and so provide for a reasonable return on assets at a sufficient level to secure efficient financing in capital markets for the purpose of investing in new or expanded airport infrastructure and, where relevant, to remunerate adequately holders of airport equity.

ix) The capacity of users to pay should not be taken into account until all costs are fully assessed and distributed on an objective basis. At that stage the contributing capability of States and communities concerned should be taken into consideration, it being understood that any State or charging authority may recover less than its full costs in recognition of local, regional or national benefits received.

x) Costs directly related to oversight functions (safety, security and economic oversight) for airport services may be included in the airport's cost basis, at the State's discretion.

Airport charging systems

3. Charging systems at international airports should be chosen in accordance with the following principles:

i) Any charging system should, so far as possible, be simple and suitable for general application at international airports.

ii) Charges should not be imposed in such a way as to discourage the use of facilities and services necessary for safety, such as lighting and navigation aids.

iii) Charges should be determined on the basis of sound accounting principles and may reflect economic principles as required, provided that these are in conformity with Article 15 of the *Convention on International Civil Aviation* and other principles in the present policies.

iv) The charges must be non-discriminatory both between foreign users and those having the nationality of the State in which the airport is located and engaged in similar international operations, and between two or more foreign users.

v) Consistent with the form of economic oversight adopted, States should assess, on a case-by-case basis and according to local or national circumstances, the positive and negative effects of differential charges applied by airports. States should ensure that the purpose, creation and criteria for differential charges are transparent. Without prejudice to modulated charging schemes, the costs associated with such differential charges should not be allocated to users not benefiting from them. Charges offered for the purpose of attracting or retaining new air services should only be offered on a temporary basis.

vi) To avoid undue disruption to users, increases in charges should be introduced on a gradual basis; however, it is recognized that in some circumstances a departure from this approach may be necessary.

vii) Where charges are levied by different entities at an airport, they should, so far as possible, be consolidated for invoicing purposes. The combined revenues should be distributed among the entities concerned as applicable.

viii) Maximum flexibility should be maintained in the application of all charging methods to permit introduction of improved techniques as they are developed.

ix) Airport charges levied on international general aviation, including business aviation, should be assessed in a reasonable manner, having regard to the cost of the facilities needed and used and the goal of promoting the sound development of international civil aviation as a whole.

Landing charges

4. The following principles should be taken into account when landing charges are established:

i) Landing charges should be based on the aircraft weight formula. The maximum certificated take-off weight as indicated in the certificate of airworthiness (or other prescribed document) should be used, while considering local restrictions that may affect aircraft maximum take-off weight. Allowance should be made for the use of a fixed charge per aircraft or a combination of a fixed charge with a weight-related element, in certain circumstances, such as at congested airports and during peak periods.

ii) Where charges for approach and aerodrome control are levied as part of the landing charge or separately, they should be consistent with policies on charges for air navigation services (see Section III, paragraph 7).

iii) Stage length flown should not be a factor in determining landing charges.

Parking and hangar charges

5. The following principles should be applied in establishing parking and hangar charges:

i) For the determination of charges associated with use of parking, hangar and long-term storage of aircraft, maximum permissible take-off weight and/or aircraft dimensions (area occupied) and length of stay should be used so far as possible as the basis.

ii) Any period of free parking time for aircraft immediately following landing should be determined locally by considering aircraft scheduling, space availability and other pertinent factors.

Passenger service charges

6. Efficiency of collecting airport charges levied on passengers should be considered to avoid queues and delays at airports. It is recommended that where the collection of a passenger service charge directly from passengers at an airport gives rise to such facilitation problems, these charges should be levied through the aircraft operators where practicable. The need for consultations between airport entities and users at the local level with a view to alleviating collection problems should be emphasized.

Security charges

7. States are responsible for ensuring the implementation of adequate security measures at airports pursuant to the provisions of Annex 17 — *Security* to the *Convention on International Civil Aviation*. They may delegate the task of providing individual security functions to such agencies as airport entities, aircraft operators and local police. It is up to States to determine in which circumstances and the extent to which the costs involved in providing security facilities and services should be borne by the State, the airport entities or other responsible agencies. With reference to the recovery of security costs from the users, the following general principles should be applied:

i) Consultations should take place before any security costs are assumed by airports, aircraft operators or other entities.

ii) The entities concerned may recover the costs of security measures at airports from the users in a fair and equitable manner, subject to consultation.

iii) Any charges for, or transfers of, security costs to providers, aircraft operators and/or end-users should be directly related to the costs of providing the security services concerned and should be designed to recover no more than the relevant costs involved.

iv) Civil aviation should not be charged for any costs that would be incurred for more general security functions performed by States such as general policing, intelligence gathering and national security.

v) No discrimination should be exercised between the various categories of users when charging for the level of security provided. Additional costs incurred for extra levels of security provided regularly on request to certain users may also be charged to these users.

vi) When the costs of security at airports are recovered through charges, the method used should be discretionary, but such charges should be based on either the number of passengers or aircraft weight, or a combination of both factors. Security costs allocable to airport tenants may be recovered through rentals or other charges.

vii) Security charges may be levied either as additions to other existing charges or in the form of separate charges but should be subject to separate identification of costs and appropriate explanation.

Noise-related charges

8. Although reductions are being achieved in aircraft noise at source, many airports will need to continue the application of noise alleviation or prevention measures. Costs incurred in implementing such measures may, at the discretion of States, be attributed to airports and recovered from the users. States have the flexibility to decide on the method of cost recovery and charging to be used in light of local circumstances. In the event that noise-related charges are to be levied, consultations should take place on any items of expenditure to be recovered from users and the following principles should be applied:

i) Noise-related charges should be levied only at airports experiencing noise problems and should be designed to recover no more than the costs applied to their alleviation or prevention.

ii) Any noise-related charges should be associated with the landing fee, possibly by means of surcharges or rebates, and should take into account the noise certification provisions of Annex 16 — *Environmental Protection* to the *Convention on International Civil Aviation* in respect of aircraft noise levels.

iii) Noise-related charges should be non-discriminatory between users and not be established at such levels as to be prohibitively high for the operation of certain aircraft.

Emissions-related aircraft charges to address local air quality (LAQ) problems at or around airports

9. Although reductions in certain pollutants emitted by aircraft engines that affect LAQ are being addressed by a variety of measures of a technical or operational nature, some States may opt to apply emissions charges to

address LAQ problems at or around airports. Costs incurred in mitigating or preventing the problem may, at the discretion of States, be attributed to airports and recovered from the users. States have the flexibility to decide on the method of cost recovery and charging to be used in the light of local circumstances[2]. In the event that LAQ emissions-related charges are to be levied, the following principles should be applied:

i) LAQ emissions-related charges should be levied only at airports with a defined LAQ problem, either existing or projected, and should be designed to recover no more than the costs of measures applied to the mitigation or prevention of the damage caused by the aircraft.

ii) The cost basis for charges should be established in a transparent manner, and the share directly attributable to aircraft should be properly assessed.

iii) Consultations with stakeholders should take place before any such charges are imposed on users.

iv) LAQ emissions-related charges should be designed to address the LAQ problem in a cost-effective way.

v) LAQ emissions-related charges should be designed to recover the costs of addressing the LAQ problem at airports from the users in a fair and equitable manner, should be non-discriminatory between users, and not be established at such levels as to be prohibitively high for the operation of certain aircraft.

vi) It is recommended that in levying LAQ emissions-related charges special consideration be given to the need to reduce the potential impact on the developing world.

vii) LAQ emissions-related charges could be associated with the landing charges, possibly by means of surcharges or rebates, or in the form of separate charges but should be subject to the proper identification of costs.

viii) It is recommended that the aircraft emissions charges scheme be based on data that most accurately reflect the actual operations of aircraft. In the absence of such data, ICAO standardized landing/take off (LTO) cycle times-in-mode should be used (Annex 16 — *Environmental Protection* to the *Convention on International Civil Aviation*, Volume II — *Aircraft Engine Emissions*).

ix) Any State imposing LAQ emissions-related charges on aircraft that are in international operation should annually report the existence of such charging schemes to ICAO. The charging authority should maintain records regarding the fees collected and the use of funds to be made available to all users.

2. Additional guidance on LAQ emissions-related charges appears in *Guidance on Aircraft Emissions Charges Related to Local Air Quality* (Doc 9884).

Development of revenues from concessions, rental of premises and "free zones"

10. Income derived from such sources as concessions, rental of premises, and "free zones" is important to airports. It is recommended that, with the exception of concessions that are directly associated with the operation of air transport services, such as fuel, in-flight catering and ground handling, non-aeronautical revenues be fully developed, while keeping in mind the interests and needs of passengers and the public, and ensuring terminal efficiency[3].

Fuel concession fees

11. Where fuel "throughput" charges are imposed, they should be recognized by airport entities as being concession charges of an aeronautical nature. Fuel concessionaires should not add them automatically to the price of fuel to aircraft operators, although they may properly include them as a component of their costs in negotiating fuel supply prices with aircraft operators. The level of fuel "throughput" charges may reflect the value of the concessions granted to fuel suppliers and should be related to the cost of the facilities provided, if any. Alternatively, consideration may be given, where feasible, to replacing fuel "throughput charges" by fixed concession fees reflecting the value of the concession and related to the costs of the facilities provided, if any. Where imposed, any such charges or fees should be assessed by airport operators in such a manner as to avoid discriminatory effects, either direct or indirect, for both fuel suppliers and aircraft operators and to avoid their becoming an obstacle to the progress of civil aviation.

---

3. In the development and determination of the fees for concessions directly associated with the operation of air transport services, reference might be made to the relevant guidance contained in the *Airport Economics Manual* (Doc 9562) and to the model clause on ground handling for optional application in air services agreements in *Policy and Guidance Material on the Economic Regulation of International Air Transport* (Doc 9587).

SECTION III. ICAO'S POLICIES ON CHARGES FOR AIR NAVIGATION SERVICES

The cost basis for air navigation services charges

1. As a general principle, where air navigation services are provided for international use, the State may require the users of such services to pay the portion of costs properly allocable to them. At the same time, international civil aviation should not be asked to meet costs which are not properly allocable to it. States should ensure that ANSPs maintain their accounts, where appropriate in accordance with internationally accepted accounting standards, in a manner that ensures that air navigation services charges levied on international civil aviation are properly calculated.

2. An equitable cost-recovery system could comprise charges based on the allocation of total air navigation services costs incurred on behalf of users. The list in Appendix 2 may serve as a general guide for facilities and services to be accounted for.

3. The establishment of the cost basis for air navigation services charges should observe the following principles:

i) The cost to be allocated is the full cost of providing the air navigation services, including appropriate amounts for cost of capital and depreciation of assets, as well as the costs of maintenance, operation, management and administration.

ii) The costs to be taken into account should be those assessed in relation to the facilities and services, including satellite services, provided for and implemented under the ICAO Regional Air Navigation Plan(s), supplemented where necessary pursuant to recommendations made by the relevant ICAO Regional Air Navigation Meeting, as approved by the Council. Any other facilities and services, unless provided at the request of aircraft operators, should be excluded, as should the cost of facilities or services provided on contract or by the aircraft operators themselves, as well as any excessive construction, operation or maintenance expenditures.

iii) The costs of air navigation services provided during the en-route, approach and aerodrome phases of aircraft operations should be identified separately where possible.

iv) The costs of supporting services such as aeronautical meteorological services (MET), aeronautical information services (AIS) and other ancillary services should also be identified separately.

v) Costs for certain security measures of a preventive nature for the provision of air navigation services, which are specifically related to civil aviation and performed on a routine basis, may be included in the cost basis for air navigation services charges to the extent that they have not already been considered in the context of safety-related measures. Civil aviation should not be charged for any costs that would be incurred for more general security functions performed by States such as general policing, intelligence gathering and national security. Further, costs associated with airport security should not be combined with security costs incurred with regard to air navigation facilities or services.

vi) Air navigation services may produce sufficient revenues to exceed all direct and indirect operating costs and so provide for a reasonable return on assets (before tax and cost of capital) to secure efficient financing for the purpose of investing in new or enhanced air navigation services infrastructure.

vii) Costs directly related to oversight functions (safety, security and economic oversight) for air navigation services may be included in the ANSP's cost basis, at the State's discretion.

4. In determining the costs to be recovered from users:

i) States may choose to recover less than full costs in recognition of local, regional or national benefits. Any approach towards full cost recovery should be a gradual progression.

ii) It is for each State to decide for itself whether, when, and at what level any air navigation services charges should be imposed. It is recognized that States in developing regions of the world, where financing the installation and maintenance of air navigation services is difficult, are particularly justified in asking the international aircraft operators to contribute through charges towards bearing a fair share of the cost of the services.

Allocation of costs of air navigation services among aeronautical users

5. The allocation of the costs of air navigation services among aeronautical users should be carried out in an equitable manner. The proportions of cost attributable to international civil aviation and attributable to others (including domestic civil aviation, State or other exempted aircraft, and non-aeronautical users) should be determined in such a way as to ensure that no users are burdened with costs not properly allocable to them according to sound accounting principles. It is also recommended that States ensure that basic utilization data in respect of air navigation services are maintained, when such information is relevant to the allocation and recovery of costs. Such data could include the number of flights by user category, whether domestic or international, as well as distances flown and information on aircraft type or weight[1].

Air navigation services charging systems

6. States should ensure that systems used for charging for air navigation services be established in accordance with the following principles:

i) Any charging system should, so far as possible, be simple, equitable and, with regard to route air navigation services charges, suitable for general application at least on a regional basis. The administrative cost of collecting charges should not exceed a reasonable proportion of the charges collected.

ii) Charges should not be imposed in such a way as to discourage the use of facilities and services necessary for safety or the introduction of new aids and techniques. The facilities or services provided for in the ICAO Regional Air Navigation Plan(s) or in any recommendations of the relevant ICAO Regional Air Navigation Meeting, as approved by the Council, are considered to be necessary for safety and efficiency.

1. Guidance on cost allocation is contained in the *Manual on Air Navigation Services Economics* (Doc 9161), although States may use any accounting approach they consider meets their particular requirements.

iii) Charges should be determined on the basis of sound accounting principles and may reflect economic principles as required, provided that these are in conformity with Article 15 of the *Convention on International Civil Aviation* and other principles in the present policies.

iv) The system of charges must not discriminate between foreign users and those having the nationality of the State or States responsible for providing the air navigation services and engaged in similar international operations, or between two or more foreign users.

v) Consistent with the form of economic oversight adopted, States should assess, on a case-by-case basis and according to local or national circumstances, the positive and negative effects of differential air navigation services charges. States should ensure that the purpose, creation and criteria for differential charges are transparent. Without prejudice to modulated charging schemes, the costs associated with such differential charges should not be allocated to users not benefiting from them. Charges offered for the purpose of attracting or retaining new air services should only be offered on a temporary basis.

vi) Charging systems should take into account the cost of providing air navigation services and the effectiveness of the services rendered.

vii) When charging systems are introduced or significantly revised, account should be taken of the economic and financial impact on both the users and the provider State or States. To avoid undue disruption to users, resulting increases in charges should be introduced on a gradual basis; however, it is recognized that in some circumstances a departure from this approach may be necessary.

viii) Charges should be levied in such a way that no facility or service is charged for twice with respect to the same utilization. In cases where certain facilities or services have a dual role (for example, approach and aerodrome control as well as en-route air traffic control), their cost should be equitably allocated for charging purposes.

ix) The charges levied on international general aviation, including business aviation, should be assessed in a reasonable manner, having regard to the cost of the facilities needed and used and the goal of promoting the sound development of international civil aviation as a whole.

x) States should refrain from segmenting Flight Information Regions (FIRs) solely for the purpose of generating revenue unrelated to the costs of service provision.

Approach and aerodrome control charges

7. Where charges for approach and aerodrome control are levied, whether as part of the landing charge or separately, the charge should, so far as possible, be a single element of the landing charge or a single charge per flight and could take aircraft weight into account but less than in direct proportion.

Route air navigation services charges

8. The charge for route air navigation services should be, so far as possible, a single charge per flight for all route air navigation services provided at the national or regional level. The charge could be based essentially on:

i) The distance flown within a defined area.

ii) The aircraft weight.

If used, the element of distance flown should be applied by means of a distance scale using great circle distances or other commonly agreed distances. If used, the element of aircraft weight should be applied by means of a weight scale using broad intervals which should be standardized so far as possible. This weight scale should take into account, less than proportionately, the relative productive capacities of the different aircraft types concerned.

9. Without prejudice to the guidelines provided above, which constitute a charging system for general application, it is recognized that:

i) The characteristics of a given airspace will determine the most appropriate charging method for that airspace, having regard to the type of traffic, the distances flown, and the characteristics of the aircraft in that airspace.

ii) When the distance flown and/or the aircraft types are reasonably homogeneous, the distance and weight elements may be separately or jointly neglected as the case may be.

iii) In some circumstances, it may be considered appropriate to use a combination of a flat charge per flight and a charge based on the parameters recommended above in recognition of an element of fixed costs in providing air traffic services.

Charges for air navigation services used by aircraft when not over the provider State

10. Providers of air navigation services for international use may require all users to pay their share of the cost of providing them regardless of whether or not the utilization takes place over the territory of the provider State. Accordingly, wherever a State has accepted the responsibility for providing route air navigation services over another State, over the high seas, or in an airspace of undetermined sovereignty (in accordance with the provisions of Annex 11 — *Air Traffic Services* to the *Convention on International Civil Aviation* and Regional Air Navigation Agreements approved by the Council), the State concerned may levy charges on all users for the services provided. A State may delegate to another State or to an organization the authority to levy such charges on its behalf.

11. The collection of air navigation services charges in cases where the aircraft does not fly over the provider State poses difficult and complex problems. It is for the States to find the appropriate kind of machinery on a bilateral or regional basis for meetings between provider States and those of the users, aiming to reach as much agreement as possible concerning the facilities and services provided, the charges to be levied, and the methods of collecting these charges.

Appendix 1

GUIDE TO THE FACILITIES AND SERVICES TO BE TAKEN INTO ACCOUNT IN DETERMINING AIRPORT COSTS[1]

Approach, landing and take-off facilities and services

Landing area with cleared approaches and taxiways with necessary drainage, fencing, etc. Also, lights for approach, landing, taxiing and take-off, as well as communications and other special aids for approach, landing and take-off (sometimes provided by other than the airport operator).

Approach and aerodrome control: air traffic control for approach, landing, taxiing and take-off with necessary communications, navigation and surveillance supporting services. (Approach and aerodrome control is sometimes partly or wholly provided by other than the airport operator. See also Appendix 2.)

Meteorological services (MET) (frequently provided by an entity other than the airport operator). (See also Appendix 2 as to when an allocation of the costs of these services, proportional to their utilization for airport operations, should be considered.)

Fire and ambulance service in attendance.

Terminals, aircraft parking space, hangars and other facilities and services provided for aircraft operators

Passenger and public waiting rooms and concourses with necessary heating, lighting, janitor service, approach roads, etc.

Accommodation for aircraft operators' offices, traffic counters and air crews, and for the handling of passengers and cargo.

Assistance in handling passengers and cargo, and necessary equipment.

Special servicing of aircraft (air conditioning, cleaning, etc.).

Towing and other handling of aircraft.

Space for parking and long-term storage of aircraft.

Hangar, workshop, stores, garage and other technical accommodation.

Land leased to aircraft operators for various purposes.

1. Further guidance on airport accounting is provided in the *Airport Economics Manual* (Doc 9562).

Provision of aircraft fuel (usually via concessions) and other technical supplies, and also of maintenance and repairs for aircraft.

Communication facilities (aircraft operating agency messages — Class B).

Common services such as the provision of light, heat, power and heating fuel.

Security measures, equipment, facilities and personnel for the following functions

Security control, including screening of passengers and their cabin baggage.

Security control, including screening of hold baggage.

Security control of cargo, mail and other goods.

Security control of airport and airline personnel.

Monitoring of aircraft and security restricted areas.

Background checks on persons with access to security restricted areas.

Identification systems for security purposes at airports.

Training of security personnel.

Note.— These functions relate to the Standards and Recommended Practices of ICAO's Annex 17 (and the definitions used therein) imposing on each Contracting State to have as its primary objective the safety of passengers, crew, ground personnel and the general public in all matters related to safeguarding against acts of unlawful interference with civil aviation.

Accommodation for other than aircraft operators

Accommodation for non-aeronautical facilities such as shops, hotels, restaurants, ground transport providers, banks/money exchanges, post office and telecommunications.

Facilities paid for directly by the public (car parking, sightseeing, etc.).

Accommodation for necessary government activities, customs, immigration, public health, agricultural quarantine, etc.

Land rented to other than aircraft operators (including grazing rights, etc.).

Noise alleviation and prevention

Noise monitoring systems, noise suppressing equipment and noise barriers.

Land or property acquired around airports.

Soundproofing of buildings near airports and other noise alleviation measures, including those arising from legal or governmental requirements.

Mitigation and prevention of emissions affecting local air quality (LAQ)

LAQ monitoring of the airport and its vicinity.

Airport-related emission inventory calculation and dispersion modelling.

Installation of fixed ground power and ventilation for aircraft at piers, aimed at mitigating emissions.

Installation of low-emission fuel station (for example, liquid natural gas or bio-fuels) for handling equipment and airside traffic, aimed at mitigating emissions.

Improvements to aircraft ground movement systems such as taxiways designed to reduce emissions.

Note.— The first two items qualify only to the extent it is believed aircraft may be contributing or are contributing to an LAQ problem.

Appendix 2

GUIDE TO THE FACILITIES AND SERVICES TO BE TAKEN INTO ACCOUNT IN DETERMINING THE TOTAL COSTS OF AIR NAVIGATION SERVICES[1]

Air traffic management

Air traffic management (ATM): The dynamic, integrated management of air traffic and airspace including air traffic services (ATS), airspace management and air traffic flow management (ATFM) — safely, economically and efficiently — through the provision of facilities and seamless services in collaboration with all parties and involving airborne and ground-based functions.

ATS is divided into air traffic control service (ATC), flight information service (FIS) and alerting service. ATC is further divided into the following services:

Aerodrome control service: Air traffic control service for aerodrome traffic, provided only by aerodrome control towers.

Approach control service: Air traffic control service for arriving or departing controlled flights. This includes services provided in a terminal control area, which is normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes. Approach control service is provided either by an aerodrome control tower or area control centre. Alternatively, approach control service may instead be provided by an approach control unit when it is considered necessary or desirable to establish a separate such unit.

Area control service: Air traffic control service for controlled flights in control areas (en route), provided either by an area control centre or, in rare cases, by a unit providing approach control service where no area control centre is established.

FIS and alerting service are provided to all aircraft that are subject to ATC or that otherwise are known to relevant ATS units. In addition, alerting service is provided to any aircraft known or believed to be the subject of unlawful interference.

ATFM is typically organized with a centralized flow management unit. A flow management cell (or flow management position) is established in each participating area control centre.

Communications, navigation and surveillance (CNS) systems

Ground and/or satellite-based aeronautical communications (both air-ground and ground-ground), navigation and surveillance systems necessary for safety and regularity of flights. Major elements of these systems are:

Communications: Ground and/or satellite-based facilities supporting aeronautical fixed service (AFS), aeronautical mobile service (AMS) and aeronautical broadcast service.

1. Further guidance on determining and allocating costs of air navigation services is contained in the *Manual on Air Navigation Services Economics* (Doc 9161).

Navigation: Conventional ground-based radio and visual aids to navigation, global navigation satellite system (GNSS) and its associated augmentation systems in support of all phases of flight.

Surveillance: Primary/secondary surveillance radars and other ground/satellite-based facilities supporting the automatic dependent surveillance (ADS) and/or ADS-Broadcast (ADS-B).

Meteorological services (MET)

All those parts of MET allocable to civil aviation, including in particular, among the facilities and services whose costs are to be so allocated, those that furnish civil aviation with meteorological forecasts, briefs and observations, as well as SIGMET information, VOLMET broadcasting material and any other meteorological data provided by States for the use of civil aviation. The costs of all MET provided to civil aviation should, where appropriate, be allocated between air traffic services provided for airports and air traffic services provided en route. In States where more than one international airport is involved, consideration could be given, where possible, to allocating the costs attributable to airport utilization between the airports concerned.

Aeronautical information services (AIS)

All those services concerning the provision of aeronautical information/data necessary for the safety, regularity and efficiency of civil air navigation, including the costs of transition from the traditional product-centred and paper-based AIS to the data-centred and digital aeronautical information management (AIM).

Other ancillary aviation services

All those parts of the services allocable to civil aviation of any permanent civil establishment of equipment and personnel maintained for the purposes of providing such services as search and rescue and accident investigation.

Appendix 3

GLOSSARY OF TERMS

The following terms are described as they apply in the context of these policies.

Air navigation services. This term includes air traffic management (ATM, see Appendix 2), communications, navigation and surveillance systems (CNS), meteorological services (MET) for air navigation, search and rescue (SAR) and aeronautical information services (AIS). These services are provided to air traffic during all phases of operations (approach, aerodrome control and en route).

Air navigation services provider (ANSP). Any entity providing ATM and/or other of the air navigation services mentioned above.

Autonomous entity. An independent entity established for the purpose of operating and managing one or more airports and/or air navigation services, which is empowered to manage and use the revenues it generates to cover its costs.

Annex 11. Refers to ICAO Annex 11 — *Air Traffic Services* — to the *Convention on International Civil Aviation*.

Annex 16. Refers to ICAO Annex 16 — *Environmental Protection* — to the *Convention on International Civil Aviation*.

Annex 17. Refers to ICAO Annex 17 — *Security* — to the *Convention on International Civil Aviation*.

Benchmarking. The process of either making comparisons over time within a single organization (internal benchmarking) or of comparing performance between two or more organizations (external benchmarking) in order to make improvements.

Best practices. Practices that, over time, have proven cost-effective, efficient and successful in bringing quality products and services to the marketplace.

Commercialization. An approach to management of facilities and services in which business principles are applied or emphasis is placed on development of commercial activities.

Corporate governance. Overseeing the running of a company or an entity by its management and its accountability to shareholders and other interested parties.

Concession. The right to operate a certain commercial activity at an airport, commonly on an exclusive basis and usually at a specified location.

Council. The Council of ICAO.

Depreciation of assets. The decrease in the value of an asset due to wear and tear through use, action of the elements, inadequacy or obsolescence normally over a predetermined period of time (depreciation period/book life of the asset).

Differential charges. Any preferential charges, rebates, discounts or other reductions in the charges normally payable for the use of airport and air navigation facilities and services.

Economic oversight. The function by which a State supervises commercial and operational practices of an airport or an ANSP.

Financial statements. These include the income statement and the balance sheet. The income statement summarizes all revenues and expenses, with the difference between the two totals being either a profit or a loss. The balance sheet summarizes assets and liabilities, with the difference between the two representing an increase or decrease in net worth.

Fixed costs. Costs which in the short term remain unchanged regardless of whether or not the volume of services provided increases or decreases.

Free zones. A defined area adjacent to or within the boundary of an international airport of a State where goods may be imported, stored, processed and exported without being subject to any such import, export or transit duties and taxes as may normally be applicable to goods moving to or from that State.

Fuel "throughput" charges. A concession fee levied by an airport on aviation fuel sold at the airport.

Global Air Navigation Plan. Strategic document that describes the methodology for global air navigation harmonization. It contains guidance on the ATM improvements necessary to support a uniform transition to the ATM system envisioned in the ICAO Global ATM Operational Concept.

Global Air Traffic Management (ATM) Operational Concept. A high-level description of the ICAO vision of an integrated, harmonized and globally interoperable ATM system.

Great circle distance. The length of the shorter arc of the great circle joining two points. (***Great circle***. A circle on the surface of the earth, the plane of which passes through the centre of the earth.)

Key performance areas (KPAs). Key areas of performance corresponding to the expectations of providers, regulators, users and other interested parties.

Local air quality (LAQ) emissions-related charges. Charges levied on aircraft with respect to aircraft engine emissions that have effects on local air quality.

Modulated charges. Charges that are adjusted according to the time and/or situation of use of the facility or service concerned (for example, peak/off-peak hours, air traffic congestion, noise and local air quality aspects).

Multinational facility or service. A facility/service established for the purpose of servicing international air navigation in airspace extending beyond the airspace serviced by a single State. It could be operated by one State, a group of States or an international operating agency. Guidance on the establishment of such a facility or service is included in all regional air navigation plans.

Performance management. An interactive process through which the performance of providers is expected to improve over time. This process consists of several steps, i.e. defining performance objectives, selecting performance indicators and setting their targets, monitoring performance, and reporting and assessing performance.

Pre-funding. Financing of an airport or air navigation facility project through charges levied on users prior to completion of the facility concerned.

Privatization. Transfer of full or majority ownership of facilities and services to the private sector.

Providers. In this document, refers to entities providing and operating airports or air navigation services.

Regional plan. The relevant ICAO Regional Air Navigation Plan.

Rental of premises. The right to occupy certain defined premises against payment of a fee.

Revenues from non-aeronautical sources. Any revenues received by an airport in consideration for the various commercial arrangements it makes in relation to the granting of concessions, the rental or leasing of premises and land, and "free-zone" operations, even though such arrangements may in fact apply to activities that may themselves be considered to be of an aeronautical character (for example, concessions granted to oil companies to supply aviation fuel and lubricants and the rental of terminal building space or premises to aircraft operators). Also intended to be included are the gross revenues, less any sales tax or other taxes, earned by shops or services operated by the airport itself.

Users. This term refers to aircraft operators as users of airports and air navigation facilities and services. The term "end-users" refers to ultimate consumers in general (for example, passengers and shippers).

— END —

ISBN 978-92-9231-953-3