

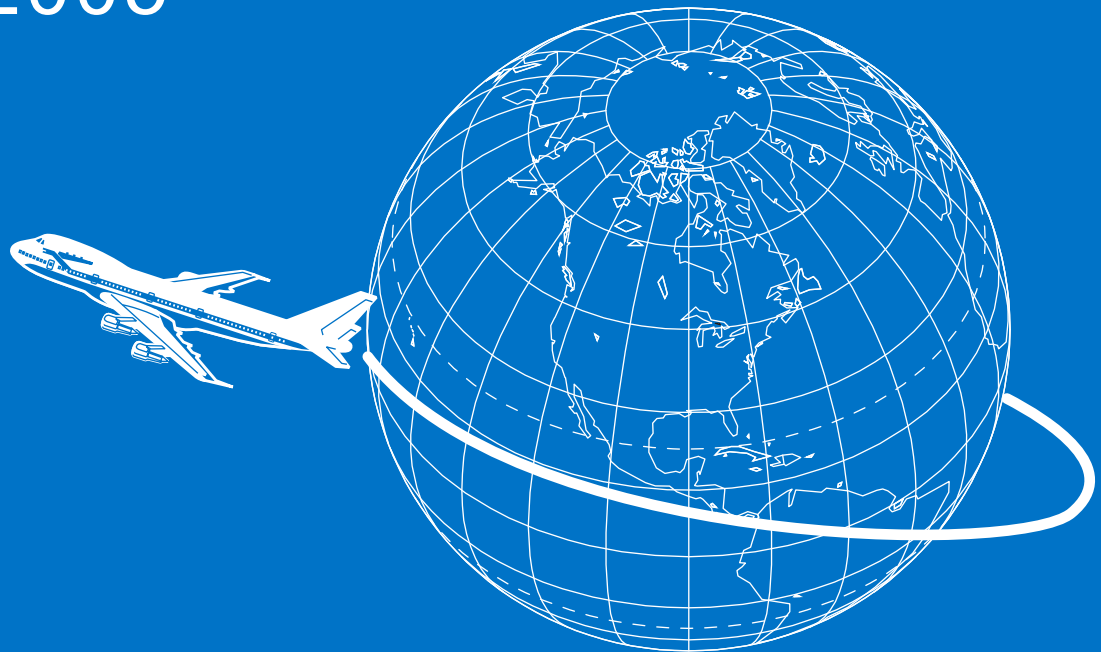
Doc 9862



Documentation for the session
of the Assembly in 2007

Annual Report of the Council

2005



International Civil Aviation Organization

VISION, MISSION AND STRATEGIC OBJECTIVES

ICAO works to achieve its vision of safe, secure and sustainable development of civil aviation through cooperation amongst its Contracting States. To implement this vision, the Council adopted the following Strategic Objectives for the period 2005-2010:

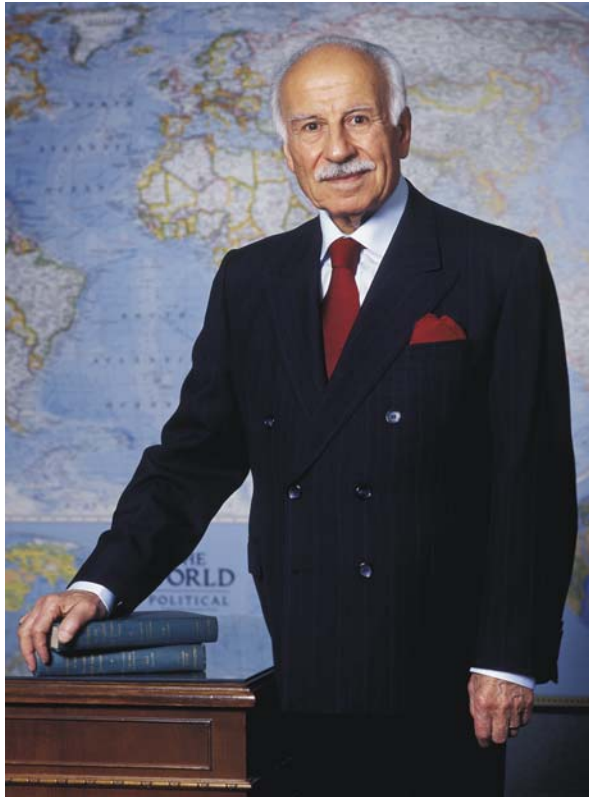
- Safety – Enhance global civil aviation safety
- Security – Enhance global civil aviation security
- Environmental Protection – Minimize the adverse effect of global civil aviation on the environment
- Efficiency – Enhance the efficiency of aviation operations
- Continuity – Maintain the continuity of aviation operations
- Rule of Law – Strengthen law governing international civil aviation

These objectives reflect the status, role and responsibilities of ICAO as the:

- leader in the development and promotion of SARPs and in auditing compliance to them;
- institution facilitating and assisting its Contracting States in the implementation of SARPs, Air Navigation Plans, and ICAO policies;
- promoter of global air transport policies for an efficient international civil aviation system;
- ultimate venue for crisis management in international civil aviation;
- body dealing with the development and diffusion of international air law and with the settlement of international civil aviation disputes; and
- central institution for global governance in civil aviation.

In addition, the six Strategic Objectives form the basis of the Strategic Positioning of the Organization as:

- the global driver of safety management systems designed to achieve measurable results in aviation safety;
- the promoter and coordinator of performance-based security measures amongst States;
- the leading international organization pursuing unified and coordinated measures to reduce civil aviation's impact on the environment; and
- the key driver in the implementation of harmonized air traffic management systems and performance-based efficiency improvements.



**TO THE ASSEMBLY
OF THE
INTERNATIONAL CIVIL AVIATION ORGANIZATION**

I have the honour to transmit, at the direction of the Council, its Report for the year 2005 prepared in compliance with Article 54(a) of the Convention on International Civil Aviation. It constitutes documentation for the next regular Session of the Assembly, which will be convened in 2007, but it is being circulated to Contracting States now for their information. It will also be sent to the Economic and Social Council of the United Nations in pursuance of Article VI, paragraph 2 (a) of the Agreement between the United Nations and ICAO.

The Report was prepared by the Secretariat and circulated in draft form to the Representatives of Council Member States for their suggestions. The Council, as a body, did not formally examine or adopt it but, as in the past, delegated to its President authority to approve the final text after considering all the suggestions received.

The 2005 Annual Report of the Council is my last as Council President. Since first elected to the position in 1976, I have witnessed and been part of the extraordinary evolution of global air transport. I take this opportunity to share my views on the direction of civil aviation in the decades to come.

It is a fact that air transport brings tremendous benefits to humanity in terms of economic, social and cultural development. The industry currently employs 29 million people, directly or indirectly, and represents 8 per cent of the world's gross domestic product, or some US\$3 000 billion. Some 40 per cent of manufactured goods by value are shipped by air and many national economies are dependent on air transport, which also supports the world's largest industry — travel and tourism.

For air transport to contribute to the well-being of people in the years ahead, it must keep growing in a safe and orderly manner, as intended by the Convention on International Civil Aviation. Managing growth will then be the overarching challenge facing the world aviation community in the first half of the 21st century.

In fact, traffic has grown practically every year since the creation of ICAO in 1944. In 2005, passenger traffic on scheduled carriers of ICAO Contracting States reached the two billion mark for the first time. A long-term projected growth of 3.5 per cent annually would push that number to more than 2.5 billion by the year 2015. This translates into more than 30 million aircraft departures. Cargo traffic should also increase substantially at over 5 per cent annually, well above the anticipated economic growth worldwide. In 2005, some 38 million tonnes of cargo, representing approximately 40 per cent of manufactured goods by value, were shipped by air.

These numbers assume that we will have succeeded in keeping in check major impediments to sustained growth, such as airspace and airport congestion, threats to the security of airline operations, airports and critical ground installations such as air traffic control towers, as well as the negative impact of aviation on the environment.

ICAO's role will continue to be one of leadership and assistance to its Contracting States, according to the six strategic objectives established by the Council in 2004 and designed to enhance the safety and security of global civil aviation, minimize its adverse effect on the environment, enhance the efficiency and maintain the continuity of aviation operations, and strengthen law governing international civil aviation.

In terms of safety, this means promoting effective synergy between our Universal Safety Oversight Audit Programme (USOAP), our Unified Strategy and the growing application of Safety Management Systems (SMS) worldwide, three key elements of a global safety strategy based on transparency and sharing of information among States and the industry. Safety must become a way of life for everyone involved with civil aviation.

Our security strategy is based on the ICAO Plan of Action for Strengthening Aviation Security, adopted by the High-level Ministerial Conference of 2002, along with the Universal Security Audit Programme (USAP). Fundamental to the success of the Plan is the operational complementarities of USAP, the ICAO Aviation Security (AVSEC) Mechanism and technical cooperation projects. In the long term, we must diligently assess new and emerging threats, particularly man-portable air defence systems (MANPADS); continually monitor and upgrade existing security processes to ensure they are commensurate with the level of threat identified; and expedite the clearance of passengers and cargo at airports while maintaining the highest level of security.

Environmental protection is a daunting task. Aircraft today are 70 per cent more energy efficient than they were in the 1970s, but in terms of noise and air pollution, the sustained growth in the number of flights may negate this otherwise phenomenal achievement. We must pursue our work diligently through the Council's Committee on Aviation Environmental Protection (CAEP), in close cooperation with the United Nations Framework Convention on Climate Change (UNFCCC) and other interested parties, so that ever fewer people are affected by aircraft noise and engine emissions.

The 11th ICAO Air Navigation Conference held in 2003 established the future direction for the development of a globally harmonized and seamless global air navigation system, with the Global ATM Operational Concept at its core. This blueprint aims at ensuring the safe and orderly development and implementation of global air traffic management that takes into account efficiency, regularity, cost-effectiveness and environmental protection.

ICAO's policy on air transport liberalization is contained in the Declaration of Global principles of the fifth Worldwide Air Transport Conference, also held in 2003. It aims to create an environment in which international air transport may develop and flourish in a stable, efficient and economical manner without compromising safety and security and while respecting social and labour standards. Our continued efforts at protecting the well-being of passengers and people on the ground from communicable diseases will also be a major consideration.

Finally, we must continue to maintain a unified global legal framework, in force and continually adapted to the requirements of international civil aviation.

A Business Plan, which was adopted in 2005, will translate the Strategic Objectives into action plans and will ensure a link between planned activities, organizational cost and performance assessment. Support mechanisms, such as the Technical Co-operation Programme and the International Financial Facility for Aviation Safety (IFFAS), will continue to provide assistance to States in meeting their obligations under the Chicago Convention.

As always, our best guarantee for meeting the strategic objectives, and thereby ensuring the safe and orderly growth of air transport well into the future, is to work in close cooperation with all members of the world aviation community.

It has been a privilege to be associated with this extraordinary Organization for 53 years. I was honoured to have been elected to 11 consecutive mandates as President of the Council. I leave ICAO in good hands, confident that the spirit of global consensus upon which it is built will always guide international civil aviation in helping to create and preserve friendship and understanding among nations and peoples of the world.

Assad Kotaite
President of the Council

CONTRACTING STATES

Afghanistan	Georgia	Palau
Albania	Germany	Panama
Algeria	Ghana	Papua New Guinea
Andorra	Greece	Paraguay
Angola	Grenada	Peru
Antigua and Barbuda	Guatemala	Philippines
Argentina	Guinea	Poland
Armenia	Guinea-Bissau	Portugal
Australia	Guyana	Qatar
Austria	Haiti	Republic of Korea
Azerbaijan	Honduras	Republic of Moldova
Bahamas	Hungary	Romania
Bahrain	Iceland	Russian Federation
Bangladesh	India	Rwanda
Barbados	Indonesia	Saint Kitts and Nevis
Belarus	Iran (Islamic Republic of)	Saint Lucia
Belgium	Iraq	Saint Vincent and the Grenadines
Belize	Ireland	Samoa
Benin	Israel	San Marino
Bhutan	Italy	Sao Tome and Principe
Bolivia	Jamaica	Saudi Arabia
Bosnia and Herzegovina	Japan	Senegal
Botswana	Jordan	Serbia and Montenegro
Brazil	Kazakhstan	Seychelles
Brunei Darussalam	Kenya	Sierra Leone
Bulgaria	Kiribati	Singapore
Burkina Faso	Kuwait	Slovakia
Burundi	Kyrgyzstan	Slovenia
Cambodia	Lao People's Democratic Republic	Solomon Islands
Cameroon	Latvia	Somalia
Canada	Lebanon	South Africa
Cape Verde	Lesotho	Spain
Central African Republic	Liberia	Sri Lanka
Chad	Libyan Arab Jamahiriya	Sudan
Chile	Lithuania	Suriname
China	Luxembourg	Swaziland
Colombia	Madagascar	Sweden
Comoros	Malawi	Switzerland
Congo	Malaysia	Syrian Arab Republic
Cook Islands	Maldives	Tajikistan
Costa Rica	Mali	Thailand
Côte d'Ivoire	Malta	The former Yugoslav Republic of Macedonia
Croatia	Marshall Islands	Timor-Leste
Cuba	Mauritania	Togo
Cyprus	Mauritius	Tonga
Czech Republic	Mexico	Trinidad and Tobago
Democratic People's Republic of Korea	Micronesia (Federated States of)	Tunisia
Democratic Republic of the Congo	Monaco	Turkey
Denmark	Mongolia	Turkmenistan
Djibouti	Morocco	Uganda
Dominican Republic	Mozambique	Ukraine
Ecuador	Myanmar	United Arab Emirates
Egypt	Namibia	United Kingdom
El Salvador	Nauru	United Republic of Tanzania
Equatorial Guinea	Nepal	United States
Eritrea	Netherlands	Uruguay
Estonia	New Zealand	Uzbekistan
Ethiopia	Nicaragua	Vanuatu
Fiji	Niger	Venezuela
Finland	Nigeria	Viet Nam
France	Norway	Yemen
Gabon	Oman	Zambia
Gambia	Pakistan	Zimbabwe

TABLE OF CONTENTS

	<i>Page</i>
Chapter 1. Facts about ICAO	1
What it is	1
What it does	1
How it works.....	2
ICAO publications	3
The ICAO website at www.icao.int	3
Strategic objectives and business plan.....	4
Structure of ICAO Secretariat	5
 Chapter 2. The Organization	 7
1. Highlights for 2005	7
2. The Council	7
3. Personnel	10
4. Familiarization Course.....	11
5. Language services and publications.....	11
6. Registry, distribution and sales	12
7. Finance.....	13
 Chapter 3. Principal trends and developments in civil aviation.....	 17
1. Global and regional economic developments	17
2. Traffic	18
3. Finances.....	20
4. Organizational and commercial developments	21
5. Economic regulation.....	24
6. Aircraft accidents.....	26
7. Acts of unlawful interference	27
 Chapter 4. Projects given special attention.....	 29
A. Safety – Enhance global civil aviation safety	29
B. Security – Enhance global civil aviation security	33
C. Environmental protection – Minimize the adverse effect of global civil aviation on the environment	35
D. Efficiency – Enhance the efficiency of aviation operations	38
E. Continuity – Maintain the continuity of aviation operations	41
F. Rule of law – Strengthen law governing international civil aviation	42

	<i>Page</i>
Chapter 5. Technical Co-operation.....	43
1. Synopsis.....	43
2. Finance.....	50
3. Personnel	54
4. Fellowship awards.....	54
5. Equipment and subcontracts.....	55
6. UNDP and trust fund programmes.....	55
 Chapter 6. Constitutional and Legal questions	 57
1. Work programme of the Legal Committee and Legal meetings	57
2. Ratifications, adherences and acceptances	58
3. Assistance in the field of aviation war risk insurance	60
4. Special support.....	60
5. Registration of agreements and arrangements.....	61
6. Privileges, immunities and facilities.....	61
 Chapter 7. Regional activities	 63
 Part I. Regional Offices	
1. General.....	63
2. Highlights of activities of Regional Offices	63
 Part II. Regional Commissions	
1. General.....	68
2. African Civil Aviation Commission (AFCAC)	68
3. European Civil Aviation Conference (ECAC).....	69
4. Latin American Civil Aviation Commission (LACAC)	71
 Chapter 8. Relations with other international organizations.....	 73
1. The United Nations.....	73
2. Inter-agency bodies.....	75
3. Specialized agencies.....	76
4. Other international organizations	77

APPENDICES

	<i>Page</i>
Appendix 1. International Air Law Instruments — Ratifications and Adherences during 2005	A-1
Appendix 2. Annexes to the Convention.....	A-7
Appendix 3. The Council, Air Navigation Commission and Council Committees	A-15
Appendix 4. Meetings held in 2005.....	A-19
Appendix 5. Participation of States and international organizations in main ICAO meetings in 2005.....	A-21
Appendix 6. Saleable publications issued in 2005.....	A-25
Appendix 7. National distribution of Professional Category staff as of 31 December 2005	A-27
Appendix 8. Technical Co-operation projects	A-33
Appendix 9. Distribution of Technical Co-operation field staff by nationality, grade and programme — 2005	A-65
Appendix 10. Field personnel recruitment — 2005.....	A-67
Appendix 11. Fellowship awards made during 2005 under ICAO programmes.....	A-79
Appendix 12. Equipment procurement and subcontracts	A-85
Appendix 13. Tables relating to Chapter 3.....	A-89
Appendix 14. Missions to States and Territories by Regional Office staff in the air navigation, air transport, aviation security and technical cooperation fields (RAO)	A-101
Appendix 15. Frequency of attendance by States and Territories at ICAO Regional Office meetings and subjects covered	A-105
Appendix 16. Specific activities of Regional Offices in the air navigation, air transport, aviation security and technical cooperation fields	A-115
Glossary	A-121

CHAPTER 1. FACTS ABOUT ICAO

what it is . . .

what it does . . .

how it works . . .

WHAT IT IS . . .

The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations and was created with the signing in Chicago, on 7 December 1944, of the *Convention on International Civil Aviation*. ICAO is the permanent body charged with the administration of the principles laid out in the Convention. It sets the standards for aviation safety, security, efficiency and regularity, as well as for aviation environmental protection, and encourages their implementation.

ICAO's membership comprises 189 Contracting States. Its headquarters are in Montréal and it has regional offices in Bangkok, Cairo, Dakar, Lima, Mexico City, Nairobi and Paris.

WHAT IT DOES . . .

The aims and objectives of ICAO, as contained in Article 44 of the Chicago Convention, are to develop the principles and techniques of international air navigation and to foster the planning and development of international air transport so as to:

- ensure the safe and orderly growth of international civil aviation throughout the world;
- encourage the arts of aircraft design and operation for peaceful purposes;
- encourage the development of airways, airports and air navigation facilities for international civil aviation;
- meet the needs of the peoples of the world for safe, regular, efficient and economical air transport;
- prevent economic waste caused by unreasonable competition;
- ensure that the rights of Contracting States are fully respected and that every Contracting State has a fair opportunity to operate international airlines;
- avoid discrimination between Contracting States;
- promote safety of flight in international air navigation; and
- promote generally the development of all aspects of international civil aeronautics.

HOW IT WORKS . . .

The constitution of ICAO is the *Convention on International Civil Aviation* to which each ICAO Contracting State is a party. The Organization has a sovereign body, the Assembly, and a governing body, the Council. The chief officers are the President of the Council and the Secretary General.

The Assembly, composed of representatives from all Contracting States, meets every three years, reviewing in detail the complete work of the Organization and setting policy for the coming years. It also decides on a triennial budget.

The Council, composed of representatives from 36 States, is elected by the Assembly for a three-year term and provides continuing direction to the work of ICAO. One of the major duties of the Council is to adopt international Standards and Recommended Practices (SARPs) and to incorporate these into the Annexes to the *Convention on International Civil Aviation*. The Council is assisted by the Air Navigation Commission, the Air Transport Committee, the Committee on Joint Support of Air Navigation Services, the Finance Committee, the Committee on Unlawful Interference and the Technical Co-operation Committee.

The Secretariat, headed by the Secretary General, has five main divisions: the Air Navigation Bureau, the Air Transport Bureau, the Technical Co-operation Bureau, the Legal Bureau, and the Bureau of Administration and Services.

ICAO works in close collaboration with other specialized agencies of the United Nations such as the International Maritime Organization, the International Telecommunication Union, and the World Meteorological Organization. The International Air Transport Association, the Airports Council International, the International Federation of Air Line Pilots' Associations, and other international organizations participate in many ICAO meetings.

Annexes to the Convention

Annex 1	Personnel Licensing
Annex 2	Rules of the Air
Annex 3	Meteorological Service for International Air Navigation
Annex 4	Aeronautical Charts
Annex 5	Units of Measurement to be Used in Air and Ground Operations
Annex 6	Operation of Aircraft
Annex 7	Aircraft Nationality and Registration Marks
Annex 8	Airworthiness of Aircraft
Annex 9	Facilitation
Annex 10	Aeronautical Telecommunications
Annex 11	Air Traffic Services
Annex 12	Search and Rescue
Annex 13	Aircraft Accident and Incident Investigation

Annex 14	Aerodromes
Annex 15	Aeronautical Information Services
Annex 16	Environmental Protection
Annex 17	Security — Safeguarding International Civil Aviation Against Acts of Unlawful Interference
Annex 18	The Safe Transport of Dangerous Goods by Air

ICAO PUBLICATIONS

The *Catalogue of ICAO Publications and Audio-visual Training Aids* provides titles, abstracts, language versions available, and ordering information and is issued yearly in hard copy. Supplements to the Catalogue list new publications and audio-visual training aids as they become available, as well as amendments, supplements, etc. Most ICAO publications are issued in English, French, Russian and Spanish; Arabic and Chinese are being introduced on a gradual basis. The publications produced in 2005 are listed in Appendix 6; information on Annexes and PANS is in Appendix 2.

The fastest way to order ICAO publications is online at <http://www.icao.int> (Publications — eCommerce, Online Ordering) using Visa or MasterCard. All transactions conducted on this eCommerce dedicated server are encrypted and secure. These services are currently available in English only; service in other languages is under development.

THE ICAO WEBSITE AT www.icao.int

ICAO's home page at www.icao.int offers a main window for the general public into the work, various activities and meetings of the Organization. The French version of the public website was launched.

The ICAO eSHOP at www.icao.int/eshop, a commercial website developed with the goal of selling publications over the Internet, offers online access to various sets of ICAO documentation for an annual fee. Subscriptions give access to the full texts of International Conventions and Protocols, Annexes to the *Convention on International Civil Aviation*, publications pertaining to Air Traffic Management and the Annual Reports of the Council. There are currently over one hundred subscribers.

The ICAO-NET is a restricted website featuring unique sets of ICAO documents, including all legal instruments and ICAO Annexes to the *Convention on International Civil Aviation*. President and Secretary General memoranda were added to the ICAO-NET. One hundred and eighty-four States, all resident National delegations and 77 international organizations have access.

The Organization's online presence and use of the Internet for dissemination of information and documentation are continually expanding; in 2005, over 8 300 new web pages were added, many of them in English, Arabic, Chinese, French, Russian and Spanish, and 10 000 existing pages were updated. The State letter electronic distribution system now includes individual State letters and a trilingual interface.

STRATEGIC OBJECTIVES AND BUSINESS PLAN

In June 2005, the ICAO Secretariat developed an ICAO Business Plan for the period 2005 to 2007 to support the implementation of the six Strategic Objectives:

Safety – Enhance global civil aviation safety

Security – Enhance global civil aviation security

Environmental Protection – Minimize the adverse effect of global civil aviation on the environment

Efficiency – Enhance the efficiency of aviation operations

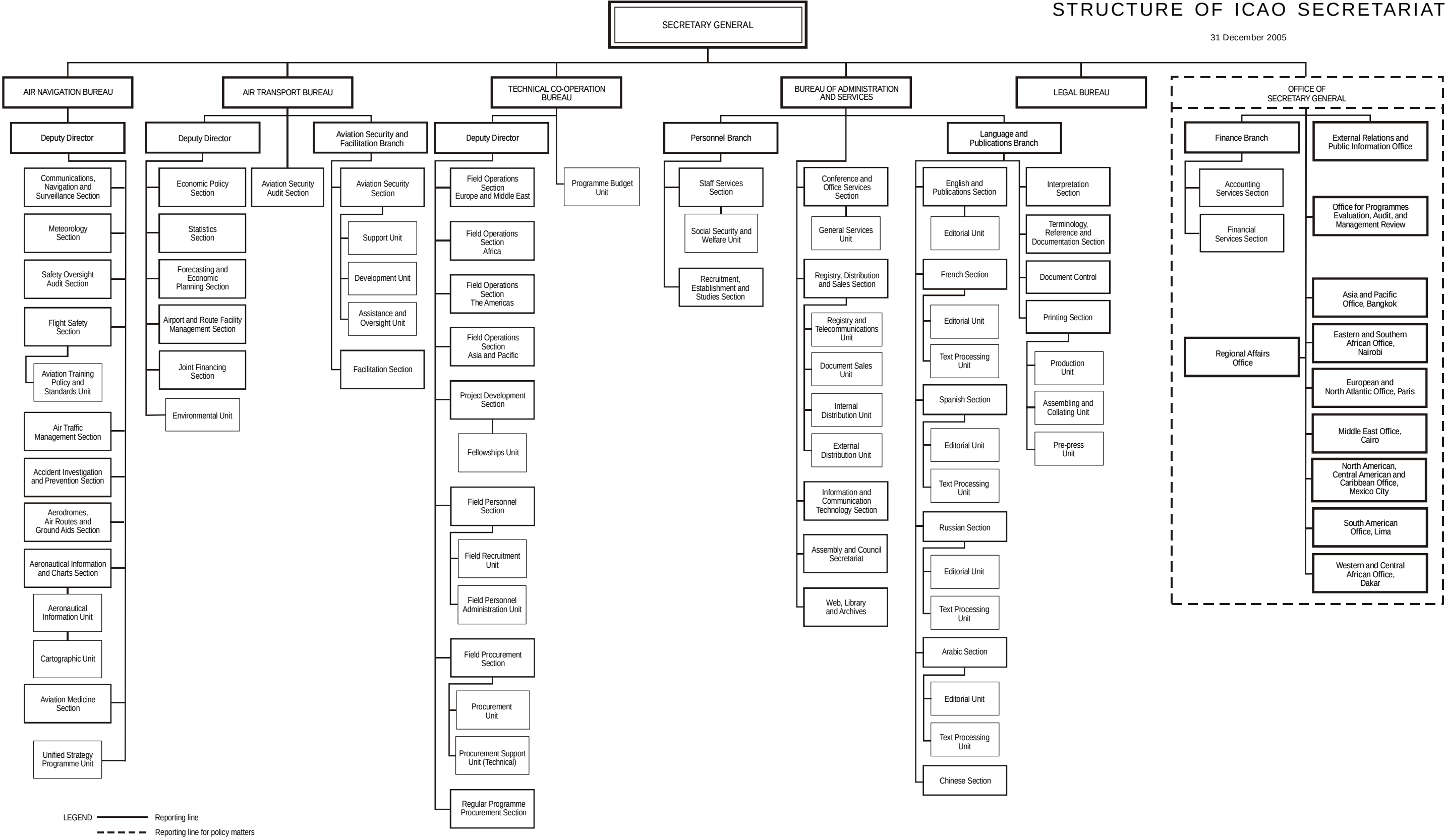
Continuity – Maintain the continuity of aviation operations

Rule of Law – Strengthen law governing international civil aviation.

The goals of the Business Plan, which integrates the programme activities of all Bureaus and Regional Offices, are to attain a requirements-driven, results-oriented Organization and to introduce new working methods by ensuring the optimal use of limited resources. Together the Strategic Objectives and the Business Plan provide the basis for a reporting framework that unites strategies, activities, funds and time frames into an effective means to monitor and evaluate outcomes.

STRUCTURE OF ICAO SECRETARIAT

31 December 2005



CHAPTER 2. THE ORGANIZATION

1. HIGHLIGHTS FOR 2005

In January, the minimum vertical distance between aircraft flying in the airspace of North, Central and South America and the Caribbean was reduced by half, from 2 000 to 1 000 ft. This initiative, referred to as reduced vertical separation minimum (RVSM), resulted in more efficient flight operations and related benefits for airlines, passengers and the environment. Similarly, RVSM was implemented in the airspace over Armenia, Azerbaijan, Georgia and the High Seas portion of the Russian Federation Rostov Flight Information Region.

In March, the Council unanimously adopted new Standards for nitrogen oxide (NOx) emissions which are 12 per cent more stringent than the previous levels agreed to in 1999. These Standards will be applicable to new engines as of 2008.

On 18 April, the Protocol amending Article 56 of the Chicago Convention, adopted in 1989, entered into force. It provides for the increase in the Air Navigation Commission from 15 to 19 members.

An ICAO Runway Safety Toolkit on CD-ROM, produced by ICAO and Embry-Riddle Aeronautical University, was distributed to all Contracting States in June.

On 3 September, Timor-Leste became the 189th Contracting State of the Organization by virtue of its adherence to the Chicago Convention.

2. THE COUNCIL

On recommendations of the ANC, the Council adopted amendments to Annexes 1, 2, 6 (Parts I, II and III), 10, 11, 14 (Volume I), 16 (Volumes I and II), and 18. The Council also adopted amendments to Annexes 9 and 17. On behalf of the Council, the President of the Council approved amendments to the PANS-ATM and the *Regional Supplementary Procedures* in accordance with the established procedure.

Pursuant to United Nations General Assembly Resolution 42/112, ICAO observed 26 June as the International Day against Drug Abuse and Illicit Trafficking. In accordance with Assembly Resolution A27-12 (Role of ICAO in the suppression of illicit transport of narcotic drugs by air) and a related Council Resolution, ICAO remains strongly committed to continuing work on this subject with a high degree of priority.

Reports on the financial situation of the Organization were presented sessionally to the Council. In November, it was noted that, excluding the Working Capital Fund, the estimated cash balance of the Organization as at 28 October was equivalent to approximately one month's average expenditure. The President of the Council appealed to those States which were represented on the Council, and to all other Contracting States, which had not paid their contributions for 2005 or had not paid them in full to take the necessary measures to pay them in full as soon as possible.

The Council approved the assessment of Timor-Leste, which became a Contracting State of ICAO on 3 September, and approved a proposal made by Comoros for the settlement of arrears of contributions.

In the field of aviation safety, the Council approved procedures for the application of Article 54 j) of the *Convention on International Civil Aviation* in order to deal with States having significant compliance shortcomings with regard to ICAO safety-related Standards.

The Council adopted a new comprehensive systems approach to the Universal Safety Oversight Audit Programme (USOAP), with a view to helping States develop stronger internal processes to respond to safety threats. Complete final safety oversight audit reports will be made available to all Contracting States, with a view to encouraging concerted action on the implementation of corrective measures.

The Council approved the convening of a Conference of Directors General of Civil Aviation on a Global Strategy for Aviation Safety (ICAO Headquarters, 20 to 22 March 2006), which will assess the current status of aviation safety.

In the field of the environment, the Council adopted, for applicability in 2008, new oxides of nitrogen (NO_x) standards which are 12 per cent more stringent than the previous levels agreed to in 1999.

In the area of facilitation, the Council was provided with sessional reports on progress towards the establishment of a public key directory (PKD) under the aegis of ICAO to support the interoperability of the electronically enhanced machine readable passports currently under development in many Contracting States.

In the aviation security field, the Council reviewed reports on the implementation and evolution of the Universal Security Audit Programme (USAP); on strategies to improve assistance to States in establishing and maintaining viable and sustainable aviation security systems through a coordinated assistance and development programme; on the implementation, through voluntary contributions of States, of the ICAO Aviation Security Plan of Action; and on the progressive integration of the Aviation Security (AVSEC) Plan of Action into the Regular Programme during the 2005-2006-2007 triennium.

In June, the Council approved the ICAO position on items of interest to aviation which are on the agenda for the International Telecommunication Union (ITU) World Radiocommunication Conference (2007) (WRC-07), as well as an amendment to the ICAO policy statements included in the *ICAO Handbook on Radio Frequency Spectrum Requirements for Civil Aviation including statement of approved ICAO policies* (Doc 9718).



Security experts were certified as aviation security instructors following completion of a certification course at ICAO Headquarters on 17 June 2005

When considering matters related to the *Convention on International Interests in Mobile Equipment* (Doc 9793) and the Protocol thereto (Doc 9794), both signed at Cape Town on 16 November 2001, the Council confirmed a decision which it took in principle on 22 November 2000 that ICAO assume the functions of Supervisory Authority of the International Registry upon the entry into force of the two instruments. In November, when reviewing information on the forthcoming entry into force, on 1 March 2006, of the Cape Town Convention and Protocol, the Council decided to establish a Commission of Experts to assist it in the performance of its functions of Supervisory Authority.

The Council reviewed reports on progress made by the Special Group on the Modernization of the Rome Convention of 1952 at its First and Second Meetings, and agreed to convene a Third Meeting of the Group at ICAO Headquarters in February 2006.

In November, the Council reviewed reports on the development of an ICAO contingency plan in preparation for a potential avian influenza pandemic. It was emphasized that the Organization should closely follow the situation and should coordinate its actions with the World Health Organization (WHO), the International Air Transport Association (IATA), the Food and Agriculture Organization (FAO) and Airports Council International (ACI).

As part of the ongoing effort to increase the efficiency and effectiveness of ICAO, the Council reviewed progress reports on the further development of the Organization's Strategic Objectives and Business Plan. When reviewing the trends affecting international civil aviation and the Organization, the Council commented on the need to shift the Organization's focus towards implementing existing Standards, as opposed to developing new ones, as well as on the need for Standards to be clear

and concise. The need to accord a higher priority to facilitating implementation of Standards was also highlighted, as was the view that ICAO should look beyond the detection of deficiencies toward identifying remedies to help make the skies safer.

3. PERSONNEL

There were 707 posts in the Establishment in 2005: 299 in the Professional and higher categories and 408 in the General Service category; these totals included 75 Technical Co-operation funded posts. Compared to the 2004 Establishment, the total number of posts decreased by 87. There were 276 Professional category personnel in service on 31 December, 19 less than on 31 December 2004. The total figure includes 11 staff members whose posts are funded by regional civil aviation bodies, but excludes 2 Associate Experts funded by France and 1 Junior Professional Officer funded by Italy. Nineteen Trust Funds posts, funded by the Joint Financing Agreement (1), AVSEC Mechanism (9), France (3), United Kingdom (1), Republic of Korea (2) and the United States (3) are also excluded from the total of Professional category personnel. During the year, 25 Professional category personnel¹ left the service of the Organization, 4 staff members were reassigned to extra-budgetary posts and 10 new appointees from 7 Contracting States reported for duty. Since the last report, 1 nationality² represented in the Secretariat was lost through departure, 1 nationality³ represented in the Secretariat was gained through recruitment, so that on 31 December 2005 there were 79 nationalities⁴ represented, the same as at the end of 2004. At the close of 2005, there were 22 vacant posts.

The external appointments made to posts subject to equitable geographical representation (EGR) from non- and under-represented States exceeded the target set by Council. The distribution level of Professional posts was examined to ascertain whether some existing posts could be re-designated to a lower level in order to recruit professionals in the early stages of their career, without compromising the highest standards of efficiency, competency and integrity.

A number of steps were taken to enhance the affirmative action programme to improve the recruitment and status of women in ICAO. As a result, a positive trend was observed in the number of applications from women for posts subject to EGR as well as in the number of women occupying these posts in the Secretariat.

Following the example of the UN, ICAO considered and implemented family-friendly policies for both female and male staff. These included flexible working arrangements and family support services through the Employee Assistance Programme (EAP).

The United Nations (UN) integrated Human Resources Management (HRM) Framework was

1. Eighteen by retirement, 5 by resignation, 1 by expiry of contract, and 1 through secondment to a Technical Cooperation Project in Nigeria.

2. Iraq.

3. Iceland.

4. See Appendix 7.

adopted by ICAO to assist in the management of its human resources. A review of the existing Human Resources (HR) policies and practices was undertaken and a Confidential Employee Survey was conducted. As a result, a number of HR strategies were approved to address the issues identified for improvement. These strategies related to employment, career management, performance management, compensation and benefits and good governance.

Human capital assessment and strategic workforce planning were initiated. ICAO managers were requested to provide the future competencies/job profiles needed by the Organization for the next three triennia. Any gap identified between the current and future skills/competencies will serve as a basis for the development and implementation of HR strategies such as recruitment, training and succession planning. To assist in the assessment of current workforce skills and competencies, Employee Skills Profiles for all staff were completed, summarizing their education, experience and language qualifications.

4. FAMILIARIZATION COURSE

The 47th ICAO Familiarization Course, held at Headquarters from 14 to 29 July, was attended by 38 participants, 18 of whom attended at ICAO's expense, 14 at their Governments' expense and 6 as observers.

The purpose of the Course was to familiarize participants with the structure and functioning of ICAO. After the Course concluded in Montréal, a number of participants paid short visits to the Regional Offices accredited to their countries.

5. LANGUAGE SERVICES AND PUBLICATIONS

The Electronic Documents and Enquiry Network (EDEN) and the document management system, Hummingbird DM, were tested and implemented on a gradual basis throughout the Organization. These systems will increase the efficiency of the Organization by migrating from the manually intensive Document Control system to an ICAO-wide, multi-user, web-based network and will be instrumental in creating a paperless environment by allowing users to submit their documents electronically and to track them online. In addition, it will speed up the process of posting electronic documents on the ICAO-NET. There was also an increase in the number of Contracting States who have electronic access to documentation and publications through the ICAO-NET. Additional steps were taken to encourage electronic distribution and to reduce printing and distribution of hard copies. The publications produced in 2005 are listed in Appendix 6; information on Annexes and PANS is in Appendix 2.

The translation output for Headquarters and the Regional Offices decreased by 22.2 per cent and

the volume of interpretation decreased by 20.5 per cent. Comparative figures for the last 4 years are given below:

Year	Translation (in pages)	Interpretation (in staff days)
2005	27 765	2 238
2004	35 696	2 815
2003	38 518	2 735
2002	31 898	2 353

Due to increasing electronic distribution, the overall number of page impressions decreased from 88.1 million in 2004 to 63 million in 2005, a decrease of 28.5 per cent.

In 2005, the International Standard Book Number (ISBN), used by publishers, booksellers, libraries and others to expedite handling, inventory control, etc., was assigned to a total of 200 publications in all six working languages.

Digitalization of historical records continued, gradually making complete sets of Assembly documentation and ICAO Journals available on the ICAO website.

6. REGISTRY, DISTRIBUTION AND SALES

Following the positive outcome of a survey conducted in the year 2004 to review the internal distribution requirements of ICAO, with the aim of reducing the distribution and production of documents in paper format within the ICAO Secretariat, the survey was repeated in 2005 and also extended to cover the National Delegations. This has resulted in a further reduction of printed documentation, as well as achieving wider utilization of ICAO-NET services.

In an effort to broaden the use of information and communication technology, an upgraded web-based application of the Central Registry Information System Database (REGIS II) was made available to users within the Secretariat, thus improving the efficiency of the Organization's records management system.

Receipts from sales of publications in 2005 totalled \$4 493 590. Table 2-1 gives comparative figures for 2003, 2004 and 2005.

Table 2-1. Receipts from sales of ICAO publications

	2005 U.S.\$	2004 U.S.\$	2003 U.S.\$
Sales from Headquarters	3 457 489	3 294 127	3 232 391
Sales from or through Regional Offices	576 184	548 318	520 091
Sales through Sales Agencies	459 917	300 228	356 944
TOTAL	4 493 590	4 142 673	4 109 426

7. FINANCE

The budget appropriations for 2005-2006-2007 and the financing of the appropriations, as approved by the Assembly, are shown in Table 2-2.

As shown in Table 2-3, the final appropriation for 2005 was adjusted to \$60 707 231, as a result of:

- i) the deferral of \$1 978 299 from 2004 appropriations to 2005 in accordance with Financial Regulation 5.11;
- ii) the transfer of \$260 000 between Major Programmes in accordance with Financial Regulation 5.10;
- iii) the increase in appropriation of \$460 000 in accordance with Financial Regulation 5.2c); and
- iv) the carry-over of \$6 400 068 from 2005 appropriations to 2006 in accordance with Financial Regulation 5.6.

The actual expenditure for 2005 against the appropriation amounted to \$60 457 967.

Assessments for 2005 on Contracting States amounted to \$58 515 776 including an assessment of \$8 776 from one new Contracting State. Assessments for 2005 actually received by the year's end amounted to \$58 846 905, or 97.15 per cent as compared with 96.75 per cent at the end of 2004 and 95.27 per cent at the end of 2003. In addition, \$1 929 277 was received in respect of assessments for previous years. The total outstanding arrears of assessments as at 31 December 2005 amounted to \$12 529 636 compared with \$12 790 042 as at 31 December 2004.

Table 2-4 shows the financial position of the Organization, in terms of cash balances in the General and Working Capital funds, at the beginning of the year and at the end of each quarter, with the corresponding figures for 2004.

The above relates to operations under the Regular Programme of the Organization, financed by appropriations made by the Assembly. The operating expenditures of the Technical Co-operation Bureau are financed by the Technical Co-operation Administrative and Operational Services Cost Fund (AOSCF), while certain other support personnel and expenses are financed from other special Funds.

**Table 2-2. Appropriations for 2005, 2006, 2007
(Resolution A35-22)**

	2005 U.S.\$	2006 U.S.\$	2007 U.S.\$
Appropriations	64 669 000	65 820 000	66 511 000
To be financed by:			
Miscellaneous income	5 162 000	5 413 000	5 723 000
Assessments	58 507 000	60 407 000	60 788 000
Transfer from the Incentive Scheme for Long-Outstanding Arrears Account	1 000 000	—	—

Table 2-3. Revised appropriations for 2005

	Appropriations 2005 Res. A35-22 U.S.\$	Deferral from prior year U.S.\$	Supplementary (C 176/14) U.S.\$	Transfers between Major Programmes U.S.\$	Carry-over to following year U.S.\$	Revised appropriations U.S.\$	Actual expenditures U.S.\$
I. General Policy and Direction	1 082 000	50 000	—	—	-144 686	987 314	977 319
II. Air Navigation	9 024 000	53 000	400 000	200 000	-707 408	8 969 592	8 889 298
III. Air Transport	5 325 000	46 000	60 000	-50 000	-535 075	4 845 925	4 800 999
IV. Legal	1 163 000	—	—	60 000	-260 330	962 670	953 188
V. Regional and Other Programmes	16 966 000	12 000	—	—	-1 937 125	15 040 875	15 022 969
VI. Administrative Support	25 262 000	—	—	-130 000	-1 228 866	23 903 134	23 828 799
VII. Finance, External Relations/Public Information and Programmes Evaluation, Audit and Management Review	3 840 000	140 000	—	-80 000	-456 693	3 443 307	3 443 307
VIII. Universal Safety Oversight Audit Programme	2 007 000	1 677 299	—	—	-1 129 885	2 554 414	2 542 088
TOTAL	64 669 000	1 978 299	460 000	0	-6 400 068	60 707 231	60 457 967

Table 2-4. Financial position (cash balance) of the Organization

As at	2005			2004		
	General Fund U.S.\$	Working Capital Fund U.S.\$	Total U.S.\$	General Fund U.S.\$	Working Capital Fund U.S.\$	Total U.S.\$
1 January	12 526 224	5 994 780	18 521 004	10 324 853	5 994 780	16 319 633
31 March	9 884 040	5 994 780	15 878 820	7 449 699	5 994 780	13 444 479
30 June	13 674 940	5 994 780	19 669 720	3 570 206	5 994 780	9 564 986
30 September	21 491 451	5 994 780	27 486 231	9 938 795	5 994 780	15 933 575
31 December	16 616 392	5 992 179	22 608 571	12 526 224	5 994 780	18 521 004

CHAPTER 3. PRINCIPAL TRENDS AND DEVELOPMENTS IN CIVIL AVIATION

This chapter summarizes the principal trends and developments in civil aviation and the work of ICAO in 2005. Tables in Appendix 13 provide detailed statistics on the data presented in this chapter. The statistics and conclusions shown in this chapter and Appendix 13 may differ from those publicized by other organizations, as they may originate from different sources and they may also be interpreted using different criteria.

1. GLOBAL AND REGIONAL ECONOMIC DEVELOPMENTS

Recovery of the world economy was still going strong in 2005 with gross domestic product (GDP) growth estimated to average 4.8 per cent in real terms, somewhat lower than in the previous year (Figure 1). The robust service sector output counterbalanced the initial slow growth in manufacturing production and trade, both of which strengthened towards year end. However, higher prices for crude oil and refined products had a weakening impact. Industrialized countries achieved a GDP growth rate of 2.7 per cent, weaker than the level achieved in 2004. The North American economy grew by 3.4 per cent, abating at the same pace as the global economy (by about 0.7 percentage points) compared to the previous year.

Despite the ongoing rapid expansion of emerging markets, GDP growth for developing countries slowed down and consolidated at 7.2 per cent, well above the world average but with significant regional variations. Africa's economy achieved a 5.2 per cent GDP increase, a weakening performance since 2004. The aggregate economy of the region with the largest share of the world economy, Asia and the Pacific, grew slightly slower in 2005, at a 5.6 per cent rate, reflecting the impact of higher oil prices which was to a large extent compensated by strong industrial production and trade. Developing countries in the Asia and the Pacific Region contributed significantly as their average GDP grew by 8.6 per cent; China's and India's GDP alone showed remarkable growth at 9 and over 8 per cent respectively. Asia's newly industrialized economies posted a 4.6 per cent GDP growth, showing a reduction of 1.2 percentage points over the previous year, due mainly to the slow-down in the information technology sector. Japan's GDP grew by 2.7 per cent, while the Australian and the New Zealand economies demonstrated a growth of 2.5 and 2.2 per cent, respectively.

The European Region achieved an average GDP growth of 2.4 per cent, to which the European currency area contributed at a 1.3 per cent rate, a significant downturn over 2004, due to weakening domestic demand, which was only partially offset by stronger export growth. The Central and Eastern European economies grew around 5.3 per cent, while the GDP growth of the economies of the Commonwealth of Independent States averaged at a 6.5 per cent rate.

Following a strong rebound in 2004, economic growth in the Latin American and the Caribbean Region continued at a more sustainable pace in 2005 with an increase of 4.3 per cent. The main factors supporting the growth momentum were strong commodity and raw material exports as well as broad terms-of-trade gains, while weaker manufacturing exports were a hampering factor.

With crude oil production reaching a 20-year high and prices continuing to rise, the Middle East Region's economy grew at a rate of 5.9 per cent in 2005, slightly higher than the growth rate achieved in 2004.

The world trade volume in goods and services is estimated to have grown by approximately 7.3 per cent in 2005, around 3 percentage points lower than in 2004.

International tourist arrivals in 2005 increased by an estimated 5.5 per cent. The World Tourism Organization (UNWTO) estimates that approximately 808 million tourists travelled to foreign countries in 2005, some 42 million more than the previous year (Figure 2). The highest growth in arrivals occurred in Africa at about 10 per cent, followed by Asia and the Pacific (just over 7 per cent) and the Middle East (7 per cent), the Americas (6 per cent) and Europe (4 per cent).

2. TRAFFIC

Scheduled Operations

The total scheduled traffic carried by the airlines of the 189 Contracting States of ICAO amounted to about 2 020 million passengers and some 38 million tonnes of freight. The overall passenger/freight/mail tonne-kilometres performed showed an increase of some 6.3 per cent over 2004, with international tonne-kilometres showing an increase of about 6.7 per cent (Tables 1 and 2). Figure 3 shows the trend from 1996 to 2005.

In 2005 the average passenger load factor on total scheduled services (domestic plus international) increased to 75 per cent, and the weight load factor increased to 63 per cent from 73 per cent and 62 per cent respectively in 2004 (Table 3 and Figure 4).

On a regional basis, 33 per cent of the total traffic volume (passengers/freight/mail) was carried by North American airlines. Asia/Pacific airlines carried some 29 per cent, European airlines 27 per cent, Middle East airlines 5 per cent, Latin American/Caribbean airlines 4 per cent and African airlines 2 per cent (Table 4).

Data for individual countries (Tables 5 and 6) show that in 2005 about 41 per cent of the total volume of scheduled passenger, freight and mail traffic was accounted for by the airlines of the United States, China (excluding the traffic from the Special Administrative Regions of Hong Kong

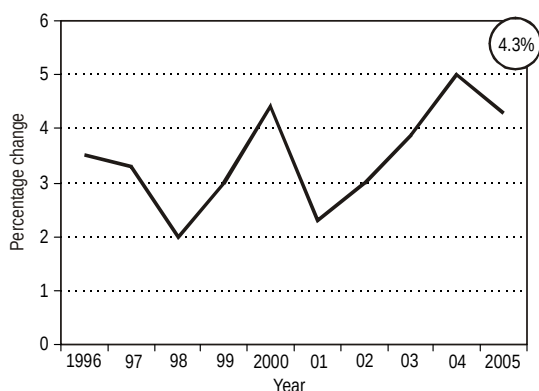


Figure 1. Development in world GDP in constant prices
year-on-year changes, 1996 – 2005

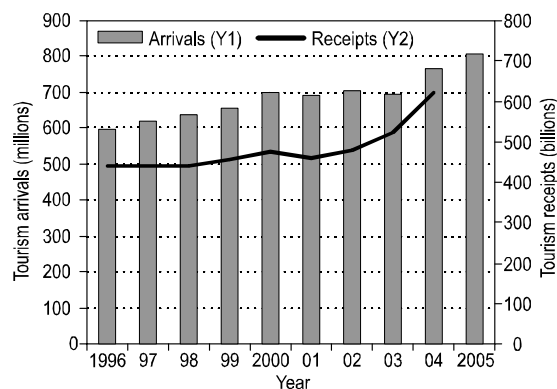


Figure 2. International tourism receipts and arrivals
U.S. dollars, 1996 – 2005

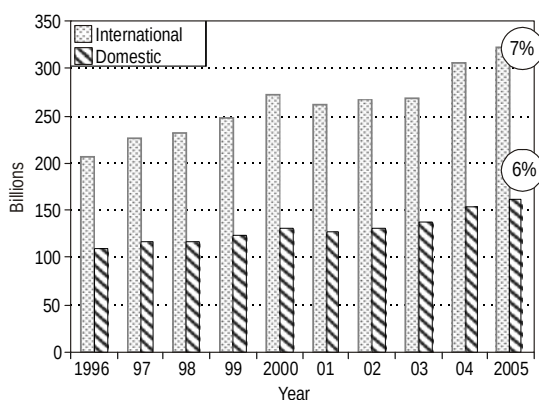


Figure 3. Scheduled traffic
tonne-kilometres performed, 1996 – 2005

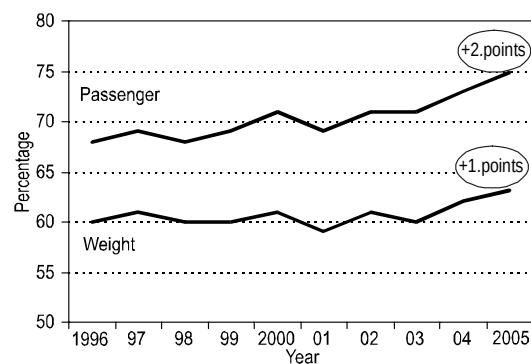


Figure 4. Load factors
scheduled services, 1996 – 2005

and Macao) and Germany (about 31, 5 and 5 per cent, respectively). On international services, some 31 per cent of all traffic was carried by the airlines of the United States, Germany and the United Kingdom (about 16, 8 and 7 per cent, respectively).

Non-scheduled Commercial Operations

It is estimated that, in 2005, the total international non-scheduled passenger-kilometres decreased by about 2 per cent compared with 2004, with the non-scheduled share of overall international air passenger traffic decreasing some one percentage point to about 11 per cent (Figure 5 and Table 7). Domestic non-scheduled passenger traffic represents about 7 per cent of total non-scheduled passenger traffic and around 1 per cent of total domestic passenger traffic worldwide.

Airport Operations

In 2005, the 25 largest airports in the world handled some 1 172 million passengers, according to preliminary estimates (Table 8). During the same period, the airports concerned (15 of which are located in North America, 6 in Europe and 4 in Asia) also handled some 12 million commercial air transport movements.

3. FINANCES

Airlines

Preliminary estimates for 2005 indicate that the world's scheduled airlines as a whole experienced a small operating profit despite rising fuel prices (Table 9 and Figure 6).

The operating revenues of scheduled airlines of ICAO Contracting States are tentatively estimated at \$ 413.3 billion¹ in 2005 and operating expenses for the same airlines at \$ 409.0 billion, giving an operating profit of 1 per cent of operating revenues. This follows an operating profit of 0.9 per cent in 2004.

Per tonne-kilometre, operating revenues increased from 77.1 cents in 2004 to an estimated 80.2 cents in 2005, while operating expenses increased from 47.7 cents to an estimated 49.7 cents.

1. All dollar amounts listed in this chapter are in U.S. dollars, unless otherwise specified. Also, 1 billion represent 1 000 million.

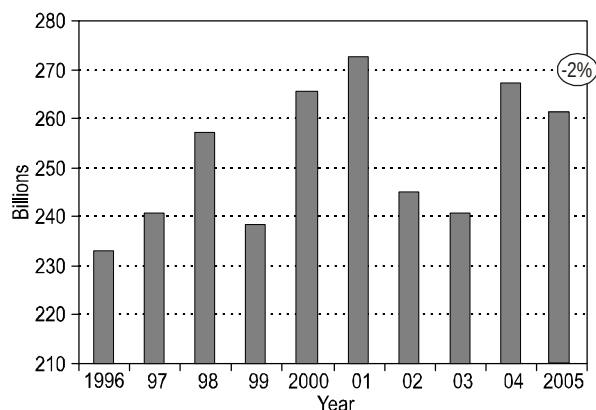


Figure 5. International non-scheduled traffic passenger-kilometres performed, 1996 – 2005

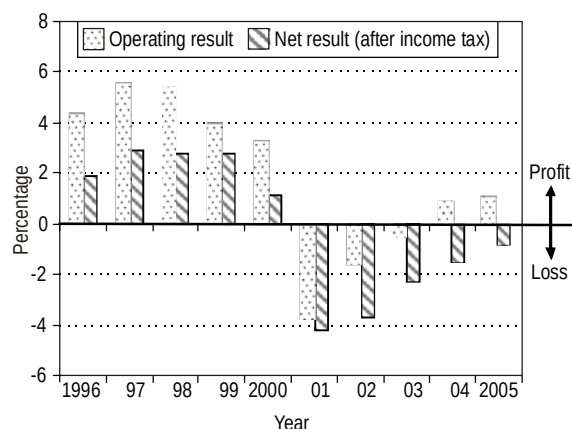


Figure 6. Financial results scheduled airlines, 1996 – 2005

Airports and air navigation services

There had been a sharp decline in airport operating margins from 2000 through 2003. As traffic recovered in 2004, both operating margins and profits improved in 2004 and 2005. According to the Airports Council International (ACI), the association's member airports capital expenditure for new infrastructure, which was about \$31 billion in 2004, reached a record of some \$36 billion in 2005.

The overall financial situation of air navigation services providers also continued to improve in 2005, partly due to the decrease, for the second year in a row, of annual spending on air traffic management systems (as a consequence of the recent modernization of these systems worldwide).

4. ORGANIZATIONAL AND COMMERCIAL DEVELOPMENTS

Airports and air navigation services

Airports

After the slow-down experienced since 2001, the process of airport privatization/commercialization regained momentum in 2005, particularly in Asia. For example, the Government of China liberalized its policy regarding airport ownership, allowing greater participation of the private sector in airport investment and management. Following the completion in 2004 of the transfer of ownership and control from the central Government to local provincial governments of some 90 airports across China, this evolution towards diversified ownership of China's airports is accelerating. In India, the process of airport restructuring and development of new ("greenfield") airports is gaining momentum, with two greenfield airports to be commissioned by March 2008 (Bangalore and Hyderabad), and the two gateway airports of New Delhi and Mumbai being assigned to two joint venture companies.

A new trend in 2005, in particular in Europe, is that of the acquisition of shares in privatized airports by multinational airport companies and consortiums (e.g. Brussels, Copenhagen and Rome airports), and airlines (Frankfurt airport).

The improved financial situation experienced by major airports over the last two years has renewed the interest of investors prompting some airports to embark on large-scale development projects, e.g. terminals, hangars, control towers and other building facilities, to cope with the increasing volume of passengers and cargo. Projects that are under way include the following:

- at London-Heathrow Airport in the United Kingdom, there is a new terminal 5 under construction;
- the airports in Moscow, the Russian Federation, have reached a record high level of capital investments;
- Dubai Airport in the United Arab Emirates is undergoing a major infrastructure expansion programme; part of this expansion is aimed at the introduction of new larger aeroplanes (NLA), e.g. the Airbus A380;
- in the United States, despite airline financial difficulties, high fuel prices, enhanced security measures, and other challenges, many major airports are planning for large infrastructure investments; and
- in order to cope with the growth in traffic, China will spend \$17.4 billion to improve existing airports and to build new ones over the next five years.

Air navigation services

The provision of air navigation services is undergoing important structural changes. For example, in Europe, the “Single European Sky” project is changing the traditional way of providing air navigation services by promoting the organization of airspace irrespective of national boundaries.

Up to 40 States worldwide have commercialized the provision of their air navigation services. In Germany, the government is proposing to sell 74.9 per cent of the shares of the Deutsche Flugsicherung (DFS), retaining only 25.1 per cent. In France, the Direction Générale de l'Aviation Civile (DGAC) was restructured to focus on three core activities: regulatory functions, safety oversight and certification, and the provision of air navigation services now under the responsibility of the Air Navigation Services Department (DSNA).

The cooperative trend between air navigation services providers continued in 2005, particularly in Europe. With the “Single European Sky” initiative, Europe is engaged in a legislative process regarding rules for designation/certification of air navigation services providers, the establishment of functional airspace blocks, a single charging scheme, and new extensive interoperability rules and standards. Activities of air navigation services providers in 2005 have been centered on developing closer cooperation among the main industry stakeholders, the air navigation services providers, their customers, their employees and the technology providers.

Carriers

On the basis of schedules published in multilateral airline schedule guides, it is estimated that at the end of 2005 there were approximately 811 air carriers worldwide providing international and/or domestic scheduled passenger services (including 74 air carriers which provide both scheduled passenger and all-freight services) and about 91 operating only scheduled all-freight services. The total number of air carriers in 2005 is estimated to be 902 air carriers, almost the same number as in 2004.

Aircraft

Between 1996 and 2005, the reported number of commercial air transport aircraft in service increased by about 30 per cent from 17 034 to 22 133 (excluding aircraft with a maximum take-off mass of less than 9 000 kg). Within these totals, turbojet aircraft numbers increased by about 32 per cent, from 13 784 to 18 246, over the same period (Figure 7 and Table 10).

In 2005, 2 140 jet aircraft were ordered (compared with 908 in 2004) and 918 aircraft were delivered (compared with 914 in 2004). The backlog of unfilled orders at the end of 2005 was 4 494 aircraft compared with 3 258 at the end of 2004.

The financial commitment in terms of jet aircraft orders placed with the major aircraft manufacturers in 2005 is estimated to be about \$ 160 billion while the backlog is about \$ 350 billion.

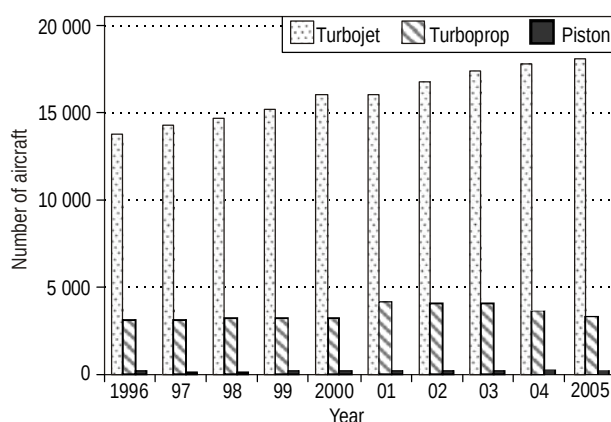


Figure 7. Total commercial air transport fleet
1996 – 2005

The number of turboprop aircraft ordered in 2005 was 348, with 47 aircraft delivered during the year.

Most active aircraft type transactions, 2005

Aircraft	Orders	Deliveries	Backlog
Boeing 737	574	212	1 175
Airbus 320	568	121	959
Boeing 787	235	0	291
Airbus 319	206	142	446
Boeing 777	155	40	282
Airbus 321	103	17	178

5. ECONOMIC REGULATION

During the year, a total of 86 bilateral air services agreements were reportedly concluded or amended by 75 States. Continuing a trend, over 70 per cent of these agreements and amendments contained some form of liberalized regulatory arrangements. For example, 16 “open skies” agreements were concluded among 19 countries; these agreements provide for full-market access without restrictions on designations, route rights, capacity, frequencies, code-sharing and tariffs. By December 2005, 118 open skies agreements had been concluded (31 in the last three years) involving 85 States. Approximately 65 per cent of the agreements involved developing countries.

Air transport liberalization activities also continued at the regional level in response to the increasingly competitive environment and liberalization challenges. Regional and/or plurilateral liberalization arrangements have the basic objectives of providing greater market access and improving services among the member States concerned. By December 2005, there were at least 11 such arrangements with several other potential arrangements in the pipeline. During the year, there were several noteworthy developments, in particular, in January, Peru withdrew from the Multilateral Agreement on the Liberalization of International Air Transportation (MALIAT) known as the Kona “open skies” agreement; in May, the African Ministers responsible for air transport adopted a plan of action to expedite and monitor the implementation of the Yamoussoukro Decision of 1999, which liberalizes intra-African air services; in September, 10 member States of the Association of Southeast Asian Nations (ASEAN) adopted a roadmap to liberalize air cargo services in 2008 and passenger services in 2010, as well as to build a common ASEAN aviation market in 2015.

The European Commission conducted negotiations on air services agreements with third countries. The Commission’s negotiating mandate conferred by the Council of the European Union (EU) is to negotiate, on behalf of all member States, an Open Aviation Area (OAA) agreement with the United States, a Euro-Mediterranean aviation agreement with Morocco, and a European Common Aviation Area (ECAA) agreement with the countries of the Western Balkans. A first-step OAA agreement with

the United States was tentatively agreed upon in November and the latter two agreements were initialled in December. The Commission also conferred a so-called “horizontal” mandate to negotiate with third countries on the replacement of certain specific provisions in the existing agreements declared contrary to Community law by a judgement of the Court of Justice of the European Communities in November 2002. “Horizontal” agreements have been initialled by 20 States, and two of them were formally signed (Chile in October and Ukraine in December). In addition, the Commission asked the Council to grant negotiating mandates for OAAs with China and the Russian Federation and other important third countries, such as Australia, Chile, India and New Zealand.

At the multilateral level, the Council for Trade in Services of the World Trade Organization (WTO-OMC), at its meeting in September, formally commenced the second review of the Annex on Air Transport Services of the General Agreement on Trade in Services (GATS). Paragraph 5 of the Annex requires that the review be conducted at least every five years. The first review, which started in 2000 and ended in 2003, resulted in the Annex remaining unchanged and continuing to cover the three so-called “soft” rights, namely: aircraft repair and maintenance, selling and marketing of air transport, and computer reservation system (CRS) services.

At the national level, several States moved to liberalize domestic air transport markets and relax restrictions on international air services on a unilateral basis. For example, following the initial designation of six airlines last year, the Government of Nigeria designated two more airlines to operate intra- and intercontinental services. In August, the Government of Venezuela introduced a fare-band system, which allows airlines to set certain domestic air fares within the prescribed zones at their own discretion. In September, the Government of the United Kingdom announced the liberalization of foreign airlines’ Fifth Freedom air services to/from the regional airports. In October, the Government of Pakistan announced an “open skies” policy for international passenger and cargo services to/from Gwadar airport.

The rapid growth of low-cost carriers (LCCs) prompted mixed regulatory reactions among States. In March, the Government of Indonesia announced that it would limit foreign LCCs’ landing rights at four major airports. In August, the Government of China adopted more flexible regulatory measures in treating service provisions and pricing for newly-established domestic LCCs. In September, the European Commission adopted guidelines on financing of airports and start-up aid to airlines, especially LCCs, departing from regional airports. The guidelines reflect the Commission’s decision of February 2004 on the establishment of Ryanair at Charleroi (Belgium).

The steady expansion of alliances, especially the three global groupings (Star Alliance, oneworld, and SkyTeam), and the increase in mergers continued to attract attention from regulatory authorities. In Europe, the European Commission approved, in July, an acquisition of Swiss International Air Lines by Lufthansa subject to conditions, including the surrender of slots at major airports. In the United States, the Department of Transportation (DOT) approved and granted antitrust immunity to an alliance agreement between America West Airlines and Royal Jordanian Airlines in January and, in October, to a tri-party agreement among American Airlines, LAN Airlines and LAN Peru. In June, the United States Department of Justice (DOJ) decided not to object to the merger of America West Airlines and US Airways, but submitted to the DOT, in August, a comment against the grant of antitrust immunity to the expanded SkyTeam alliance. In the Pacific region, the

Australian Competition and Consumer Commission (ACCC), in February, authorized the continuation of an alliance between Qantas and British Airways for a further period of five years.

Many States continued to provide varying forms of State aid to their national airlines facing financial difficulties. For example, in April, the Government of Jamaica committed a maximum subsidy of \$30 million per year for Air Jamaica. In May, the European Commission authorized a rescue aid of about Euro 100 million for Cyprus Airways by the Government of Cyprus. In some States, bankruptcy codes may also act as an indirect form of State assistance for bankrupted airlines, such as for United Airlines (bankruptcy protection from December 2002), Hawaiian Airlines (from March 2003 to June 2005), US Airways (from September 2004 to September 2005), Varig (from June 2005), Delta Air Lines (from September 2005) and Northwest Airlines (from September 2005).

6. AIRCRAFT ACCIDENTS

The aircraft accidents covered under this heading exclude incidents caused by acts of unlawful interference, which are shown under Section 7.

Scheduled Operations

Preliminary information on aircraft accidents involving passenger fatalities in scheduled air services worldwide shows that in 2005 there were 18 aircraft accidents with passenger fatalities involving aircraft with a maximum certificated take-off mass of more than 2 250 kg. The number of passenger fatalities involved was 713. This compares with 9 fatal accidents and 203 passenger fatalities in 2004 (Table 11). Though between 2004 and 2005 there was an increase in traffic, passenger fatalities per 100 million passenger-kilometres increased to 0.02 from 0.01 in 2004 because of the relatively high number of fatal accidents. The number of fatal aircraft accidents per 100 million aircraft-kilometres flown increased to 0.06 from 0.03 and the number of fatal aircraft accidents per 100 000 landings increased to 0.07 from 0.04 in 2004 (Figure 8).

The safety levels are significantly different for the various types of aircraft operated on scheduled passenger services. For instance, in turbojet aircraft operations, which account for over 98 per cent of the total volume of scheduled traffic (in terms of passenger-kilometres performed), there were 9 accidents in 2005 with 567 passenger fatalities; in turboprop and piston-engined aircraft operations, which account for just over 1 per cent of the total scheduled passenger traffic volume, there were also 9 accidents but with 146 passenger fatalities. The fatality rate for turbojet aircraft operations was, therefore, far lower than for propeller-driven aircraft.

Non-scheduled Commercial Operations

Non-scheduled commercial operations include both the non-scheduled flights of scheduled airlines and all air transport flights of non-scheduled commercial operators. Data available to ICAO on the safety of non-scheduled passenger operations show that there were 18 accidents involving passenger fatalities on aircraft with a maximum certificated take-off mass of more than 2 250 kg in 2005 (including 4 aircraft operating all-cargo services with passengers on board) the same number of fatal accidents as in 2004. These accidents accounted for 278 passenger fatalities in 2005 compared with 207 in 2004.

In non-scheduled operations performed with aircraft of more than a maximum certificated take-off mass of 9 000 kg, whether by scheduled airlines or non-scheduled operators, there were 11 accidents involving 251 passenger fatalities in 2005.

7. ACTS OF UNLAWFUL INTERFERENCE

During the year, 6 acts of unlawful interference were recorded. These acts consisted of 2 unlawful seizures, 2 facility attacks, and 2 other acts of unlawful interference (Table 12). These acts are included in the annual statistics to assist in the analysis of trends and developments (Figure 9).

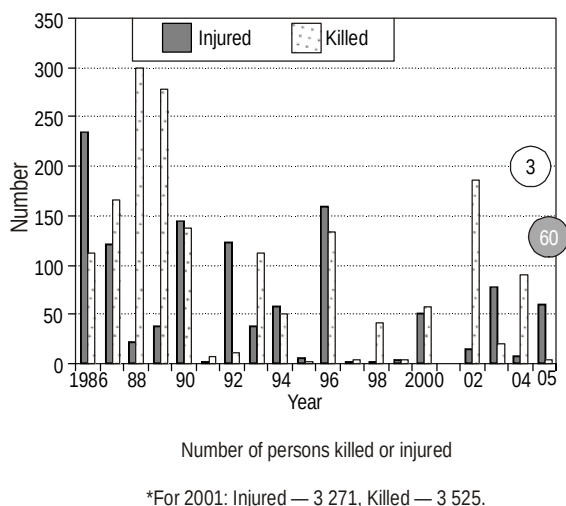
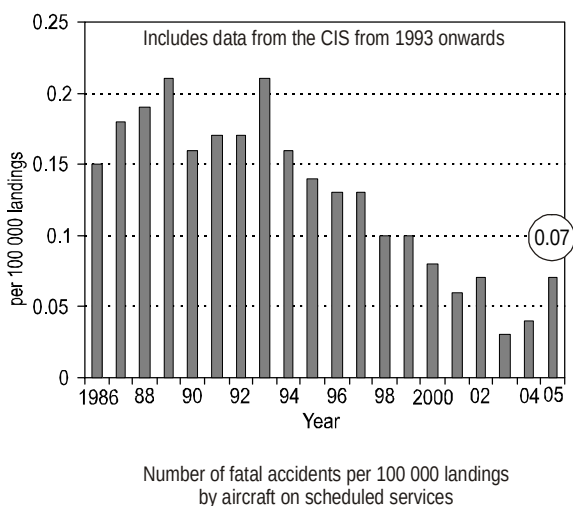
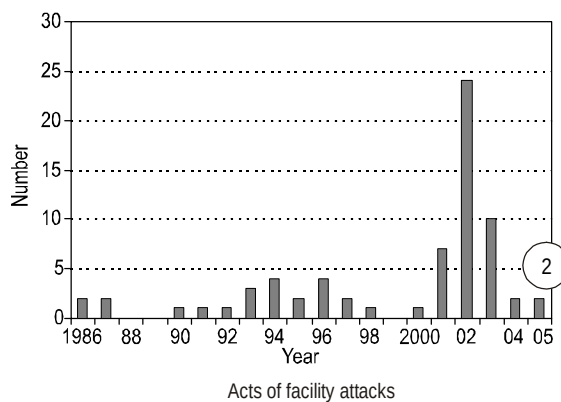
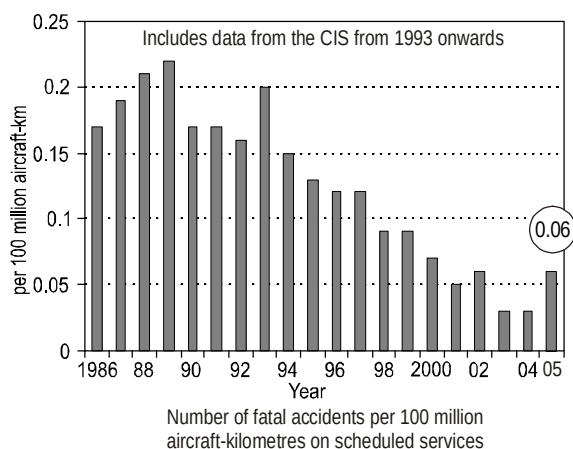
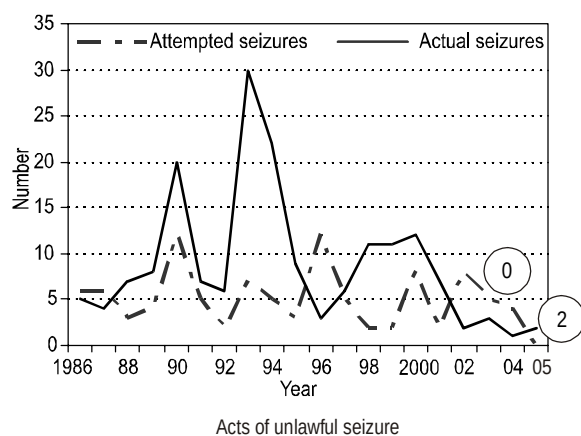
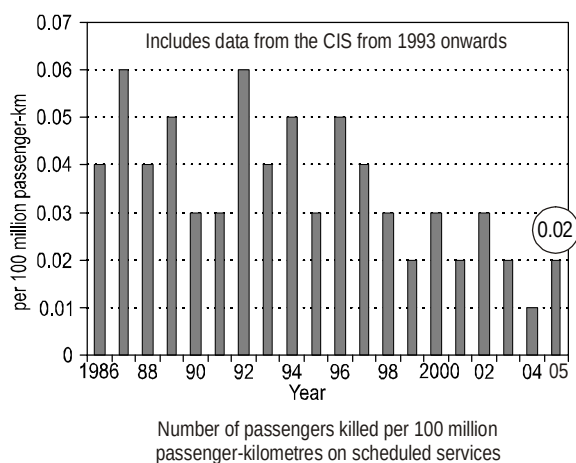


Figure 8. Aircraft accident statistics
1986 – 2005

Figure 9. Aviation security statistics
1986 – 2005

CHAPTER 4. PROJECTS GIVEN SPECIAL ATTENTION

A. SAFETY – ENHANCE GLOBAL CIVIL AVIATION SAFETY

Safety enhancement mechanisms

Unified Strategy Programme

Based on Assembly Resolution A35-7, the Organization explored a number of avenues to provide assistance to States and facilitate the exchange and sharing of safety-related information. The ICAO Unified Strategy Programme (USP) was initiated in order to coordinate the efforts and resources of the Organization to assist States in resolving safety-related deficiencies based on the principles of increased transparency and cooperation. The programme is developing a Flight Safety Information Exchange (FSIX) service, which is a web-based tool that will serve as a forum to access operational and safety-related information, including links to ICAO Universal Safety Oversight Audit Programme (USOAP) audit reports. Efforts for providing assistance to States through partnerships and the formation of regional safety oversight organizations (RSOOs) are under way. The programme is also developing means and procedures for International Financial Facility for Aviation Safety (IFFAS) financial institutions and other stakeholders to be matched with States or RSOOs in need of financial assistance in order to implement sustainable solutions to safety-related deficiencies.

Procedure for transparency and disclosure of information regarding significant compliance shortcomings with respect to safety-related SARPs

With regard to Resolution A35-7, the Council approved a procedure for transparency and disclosure of information regarding a State having significant compliance shortcomings with respect to safety-related SARPs, including failure to act in accordance with its safety oversight obligations. Within the scope of Article 54 j) of the ICAO Convention, the matter would be brought to the attention of the Council, which may decide to make a recommendation or determination as appropriate. This procedure would only be applied after having exhausted all other avenues for States to rectify their deficiencies and with due emphasis on the provisions of assistance via the USP.

Universal Safety Oversight Audit Programme — Comprehensive Systems Approach

Pursuant to Assembly Resolution A35-6 — *Transition to a comprehensive systems approach for audits in the ICAO Universal Safety Oversight Audit Programme (USOAP)*, a new phase of the Programme was launched on 1 January. In preparation for the launching of audits under the comprehensive systems approach, and in view of the expanded scope of the Programme to cover

the safety-related provisions in all safety-related Annexes, ICAO conducted a series of seven Regional Seminar/Workshops for National Safety Oversight Coordinators on the implementation of the comprehensive systems approach, one in each of ICAO's Regional Offices.

Audit activities under the comprehensive systems approach commenced in April 2005 with a total of ten audits conducted during the year (nine Contracting States and one international organization). Additionally, six ICAO Safety Oversight Auditor Training courses were conducted during 2005 in order to train, as audit team members, a sufficient number of ICAO officers and State officials seconded to ICAO.

ICAO developed a series of audit tools: a State Aviation Activity Questionnaire, sixteen Compliance Checklists (one for each of the sixteen Annexes under the scope of the Programme) and eight audit protocols covering, respectively, the legal and organizational aspects and the six core audit areas identified in Assembly Resolution A35-6 (personnel licensing, operation of aircraft, airworthiness of aircraft, air navigation services, aircraft accident and incident investigation, and aerodromes). These tools assist Contracting States and ICAO in the preparation and conduct of the audits.



**Second safety oversight audit training course
held in Montréal from 22 February to 3 March 2005**

In October, the Safety Oversight Audit Section was audited and re-certified by Moody International Certification as being compliant under ISO Standard ISO 9001:2000 — Quality Management Systems — Requirements.

Carriage of Air Operator Certificate (AOC)

Work began on an amendment proposal for Annex 6, Parts I and III, requiring the carriage of a copy of the Air Operator Certificate (AOC) during international air transport operations. Such a provision would enable Contracting States to more easily identify which State has responsibility for regulatory oversight of an aircraft used in international air transport operations and the authorizations, conditions and limitations issued to the operator by the State of the Operator in conjunction with the AOC. The amendment would also strengthen the AOC by providing for its mutual recognition by Contracting States, and would clarify the responsibilities of the State of the Operator with respect to the State whose airspace is used. The new provisions would promote compliance with ICAO Standards by enabling a Contracting State to refuse to recognize an AOC, if the State of the Operator is unable to verify that the holder meets the applicable Standards specified in the Annexes to the Convention.

Safety management systems

As a follow up to the 35th Session of the Assembly and the Eleventh Air Navigation Conference, a proposal to harmonize the provisions relating to safety management in Annex 6 – *Operation of Aircraft*, Annex 11 – *Air Traffic Services*, and Annex 14 – *Aerodromes*, was circulated to States for comment. The proposal calls on States to establish a safety programme that requires aircraft operators, ATS service providers and aerodrome operators to have a safety management system in order to achieve an acceptable level of safety and systematically manage safety in their operations. In addition, accountability for safety is to be clearly defined.

An integral part of the introduction of Standards and Recommended Practices (SARPs) for safety management is the availability of suitable guidance material. Work was completed on a draft ICAO Safety Management Manual, which is planned for publication in 2006 in English, with other language versions to follow.

Performance-based standards

Revision of Annex 6, Part III

The Secretariat, with the assistance of the Helicopter/Tilt-Rotor Study Group (HTSG), has developed a comprehensive amendment for Annex 6, Part III, to take into account current practices in the helicopter industry, as well as the capabilities of the newer generations of helicopters and the varied environments in which they operate. A key feature of this amendment is the shift, wherever possible, from prescriptive standards to performance-based standards, which permit States a degree of flexibility when introducing regulations that meet the needs of their operators. As a part of the performance-based approach, the concept of risk management was introduced to permit

increased utilization of single-engine helicopters. Performance-based standards are expected to increase compliance with ICAO SARPs and improve safety and efficiency requirements for the operation of helicopters.

Search and rescue (SAR) in the Africa-Indian Ocean (AFI) region

Search and rescue (SAR) forms an integral part of the global aviation safety structure. A key SAR project aimed at improving the quality of SAR services in participating States, funded by the Government of France and managed through ICAO's Air Navigation Bureau in cooperation with the African Civil Aviation Commission (AFCAC), was initiated in 2002. During 2005, States benefited from the following elements of the project:

- on-going SAR system evaluations (by December 2005, 27 of 40 requested evaluations had been completed);
- a manual on the organization of SAR exercises;
- SAR training sessions (by the end of 2005, over 100 students had participated; and
- the future establishment of regional SAR funding mechanisms.

Protection of the spectrum for aeronautical safety services and applications

Preparation for ITU WRC-07

Special attention was given to the protection of the radio-frequency spectrum allocated to aeronautical safety services, including the aeronautical mobile (route) service and the aeronautical radio navigation service, in relation to the ITU World Radiocommunication Conference (2007) (WRC-07). The ICAO position for the ITU WRC-07 was approved by Council. The Secretariat promoted the ICAO position at meetings of regional telecommunication organizations. In preparation for WRC-07, the Aeronautical Communications Panel (ACP) and the Navigation Systems Panel (NSP) considered developments that could have an impact on the ICAO position.

Aviation medicine

Major rewrite of medical provisions in Annex 1

Medical knowledge, medical technology and aeromedical practice have developed significantly over the past three decades; consequently, many provisions in Annex 1 were updated. For example, the improved ability to assess the future risk of pilot incapacitation from cardiac disease, along with better treatment techniques, has enabled many pilots to return to flying when previously they would have been disqualified.

The amendments that became applicable during 2005 brought the medical provisions up to date and aligned them with established aeromedical practice in many developed aviation countries. In addition, several provisions were rephrased to facilitate understanding as well as ensure that the wording corresponded to modern medical usage.

Integration of new larger aeroplanes

The second phase of the ICAO Action Plan for the introduction of new larger aeroplanes continued. In October, the second meeting of the Aerodromes Panel Working Group of the Whole considered the progress made to date in the review of the Annex 14, Volume I Code Letter F specifications. In addition to aerodrome design, the Working Group of the Whole also reviewed the progress on airport operational services, heliport design, rescue and fire fighting, and visual aids.

European Aviation Safety Agency (EASA)

On 15 July 2002, the European Community adopted Regulation (EC) No. 1592/2002 of the European Parliament, on common rules in the field of civil aviation and established a European Aviation Safety Agency (EASA). This regulation provides for the transfer of regulatory competencies in the fields of airworthiness, continuing airworthiness and environmental certification from the Member States of the European Union (EU) to EASA. All EU Member States which are also ICAO Contracting States have advised ICAO in writing of the transfer of such competencies to EASA.

This transfer of competencies to EASA reflects on the scope of the ICAO safety oversight audits under the comprehensive systems approach; therefore, ICAO performed an audit of EASA. The audit results will be made available following the established timelines as set forth in the *Safety Oversight Audit Manual* (Doc 9735). It should be noted that ICAO Contracting States that are Members of the EU will always be responsible for audit results that are derived from the audits carried out on EASA. Once a EU Member State's audit has been completed, the latest EASA safety oversight audit report will be linked to the final safety oversight audit report of the State concerned.

B. SECURITY – ENHANCE GLOBAL CIVIL AVIATION SECURITY

Aviation Security (AVSEC)

The Universal Security Audit Programme (USAP)

In 2005, ICAO aviation security audit teams completed 61 audits of States and their primary international airports. With the total number of audited States at 105, the USAP passed the halfway mark of the initial cycle of 189 audits. Auditor training courses to certify aviation security experts

were held in Buenos Aires (May), Kuala Lumpur (August), and Oklahoma City (September) bringing the total number of auditors certified as ICAO audit team members to 156, representing 69 States from all of the ICAO regions.

Significant attention was devoted to providing feedback to States on the adequacy of their corrective action plans to rectify deficiencies identified through the ICAO audits. Analysis of audit results on levels of compliance with Annex 17 Standards is performed on an ongoing basis and regularly updated. Follow-up visits were initiated to evaluate the degree of progress made by States in implementing the ICAO audit recommendations. These visits are scheduled two years after the initial audit, and are normally conducted by security officers posted in the Regional Offices.

Coordinated aviation security assistance and development programme

The objective of the coordinated aviation security assistance and development programme is to improve the level and quality of assistance provided to States and thus enable them to establish and maintain viable and sustainable aviation security systems, was approved by the Council in November. The strategy was initiated to further enhance assistance and support to States to effectively develop their aviation security infrastructure, to enhance existing infrastructure and to correct aviation security deficiencies revealed under the Universal Security Audit Programme (USAP) through, *inter alia*, closer cooperation with States, regional and international bodies, as well as multinational funding institutions, so as to generate innovative assistance and funding programmes in the aviation security field.

Effective implementation of this initiative would help bring key players in aviation security together under a coordinated assistance programme avoiding duplication of efforts by establishing operational relationships with, for example, the Organization for Security and Cooperation in Europe (OSCE), the United Nations Office on Drugs and Crime (UNODC) and the UN Counter-Terrorism Committee (CTC).

Facilitation

Passenger Name Record (PNR) Guidelines

The Twelfth Edition of Annex 9 – *Facilitation* (July 2005) calls on States to conform their Passenger Name Record (PNR) requirements and the handling of such data to guidelines developed by ICAO. In August, ICAO disseminated guidelines to all its Contracting States to assist them in implementing the Annex's recommendation. The guidelines set uniform measures for PNR data transfer and the subsequent handling of such data by States. The guidelines also address the necessity of incorporating PNR data policy into national laws and regulations while observing the relevant laws of both the States of departure and destination. A limited list of available PNR data elements is provided, and the guidelines enumerate conditions, for example, on the use, storage and disclosure of transferred data.

Public Key Directory (PKD) and e-Passport specifications (see www.icao.int/mrtd)

The technical specifications for e-Passports, to be published in 2006 in Doc 9303, will constitute the standard for an “e-Passport”. This standard specifies that the face will be the primary biometric to be used worldwide. The compressed image of the face will be stored, along with the data from the machine readable zone of the passport, in a contactless integrated circuit (IC). To assure the reader of the chip that the data therein, including the facial image, are valid, the data will be digitally “signed”. A specially tailored public key infrastructure (PKI) has been specified, in order to protect the signed data from counterfeiting or unauthorized alteration by ensuring that any overwriting of data on the chip can be detected. The public keys will be distributed universally and reliably to all States and to those airlines reading e-Passports through a central public key directory (PKD) being set up by ICAO.

Universal Implementation of Machine Readable Passports (MRPs)

Standard 3.10 of the Twelfth Edition of Annex 9 requires all 189 Contracting States of ICAO to begin issuing only MRPs in accordance with the specifications of Doc 9303, Part 1, no later than 1 April 2010. ICAO has set up a special project to assist those States in converting their systems to produce MRPs, with the objective of universal implementation ahead of the April 2010 deadline. In the interests of achieving this objective (deemed an important part of the ICAO Aviation Security Plan of Action), ICAO is prepared to provide assistance in the form of project planning, education and training, arrangements for financing, procurement assistance, start-up project management, and/or system evaluation services upon requests from Contracting States.

C. ENVIRONMENTAL PROTECTION – MINIMIZE THE ADVERSE EFFECT OF GLOBAL CIVIL AVIATION ON THE ENVIRONMENT

Aviation and environmental protection

The Committee on Aviation Environmental Protection (CAEP) continued to study options for limiting or reducing the impact of aircraft noise and engine emissions on the environment. The CAEP Steering Group met in Montréal from 3 to 7 October 2005 to review the progress of the environmental work programme.

A framework to address the interdependencies of environmental measures is under development. This framework will provide a more solid basis for future decisions on appropriate measures to minimize aviation’s impact on the environment. CAEP is also exploring tools to be used to evaluate the evolution of the impact of aircraft noise, and local and global emissions related to aviation.



**The TAG-MRTD held its sixteenth meeting
in Montréal from 26 to 28 September 2005**

Aircraft noise

On 9 August, the second ICAO Aircraft Noise Certification Workshop was held as part of RIO INTERNOISE 2005 and provided a forum for discussions with experts from civil aviation authorities responsible for noise certification and manufacturers. Work continued on monitoring new technology related to the reduction of sonic boom, the development of criteria for certification of future supersonic aircraft, and on the analysis of the correlation between noise certification levels and operational noise levels.

A Noise Certification Database was developed and will be made available on the ICAO website. It is a user-friendly database that enables direct consultations on the noise levels of various aircraft types. A similar database on emissions is also available on this site.

In concomitance with this year's UN World Environmental Day – “Green Cities”, a State letter was disseminated to States on the importance of appropriate land use planning in the vicinity of airports and invited States to provide information on their practices in this area for incorporation in the *Airport*

Planning Manual, Part 2 – Land Use and Environmental Control (Doc 9184). Work on updating the *Guidance on the Balanced Approach to Aircraft Noise Management* (Doc 9829) and associated documents continued.

Aircraft engine emissions

CAEP continued to study options to limit or reduce emissions from aviation. Focus was placed on technical, operational and market-based options, and on cooperation with relevant UN Organizations active in the field of Climate Change, particularly the United Nations Framework Convention on Climate Change (UNFCCC). The eleventh session of the Conference of the Parties to the Climate Change Convention (COP 11) and its Subsidiary Bodies was held in conjunction with the first session of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP 1) in Montréal, from 28 November to 9 December 2005. ICAO was represented at these meetings and provided information to the Twenty-third session of the Subsidiary Body for Scientific and Technical Advice (SBSTA 23) on the latest developments on emissions from aviation and the High Level segments of the COP/MOP 1 on ICAO activities relevant to the Convention.

ICAO is considering to what extent technology can help reduce the impact of engine emissions through improved engine or airframe design. The emissions considered include those already regulated by ICAO Standards and others, such as particulates, which could be relevant to the production of condensation trails and cirrus cloud formation. As for NO_x, ICAO increased the stringency limits, adopted in 1981, by 20 per cent in 1993 and by 16 per cent on average in 1999. A further reduction of 12 per cent over the existing Standard was adopted in 2005 and is due for applicability on new engines as of 2008, and the CAEP is committed to review the NO_x Standards in 2010 and is exploring long-term goals for NO_x. Aircraft have a long life cycle, which makes it especially important for ICAO to have a long-term vision for a stable international framework. New guidance material on local air quality, and in particular on the characterization of airport emissions, is under development.

ICAO continued to promote its guidance material for States on best operating practices and identified new potential actions for minimizing greenhouse gas emissions. CAEP is developing practical tools for evaluating the environmental benefits of CNS/ATM system enhancements at the State level.

Following a request from the 35th Session of the Assembly, ICAO set in motion further studies on the scientific, economic and legal aspects of local air quality and greenhouse gas emissions charges. In September, a special legal group of the Council met to respond to standing legal issues related to the possible implementation of such charges. In light of the results of that work, and further considerations by the Council, it was decided that CAEP would concentrate its efforts on the development of guidance material on emissions charges related to local air quality focusing, in this instance, on NO_x (Oxides of Nitrogen). CAEP continued to conduct studies and develop appropriate guidance for including international aviation in an open emissions trading system.

D. EFFICIENCY – ENHANCE THE EFFICIENCY OF AVIATION OPERATIONS

Modernization of the air navigation systems (CNS/ATM)

Revision of the Global Plan

The global air traffic management (ATM) operational concept, endorsed by the Eleventh Air Navigation Conference in 2003 (AN-Conf/11), provides a vision for implementation of a global ATM system. Subsequent to a consultative meeting in 2004 with the Air Navigation Commission, industry partners developed an ATM implementation road map with the goal of attaining near- and medium-term benefits while working toward the global ATM system envisioned in the operational concept. At the Commission's request, this road map was integrated into the Global Air Navigation Plan for CNS/ATM Systems; the revised Global Plan will be reviewed by the Council in the second half of 2006.

The revised Global Plan contains a set of initiatives aimed at facilitating the evolution of the work already accomplished by the Planning and Implementation Regional Groups (PIRGs). Most significantly, the Global Plan will be supported by planning tools (e.g. software applications, planning documentation, web-based reporting forms, and project management tools) which States and PIRGs will use to guide their work and as a basis for establishing performance objectives and implementation time lines. Planning in accordance with the revised Global Plan will ensure effective interaction between staff at ICAO Headquarters and in the Regional Offices, resulting in harmonization and alignment of regional programmes and implementation activities. It is gradually becoming the baseline for measuring achievements and implementation of a global ATM system as the evolution continues from a systems based to a performance-based approach to planning and implementation of air navigation infrastructure.

Global Navigation Satellite System (GNSS) Developments

In February, the first multi-functional transport satellite (MTSAT) was launched by Japan in support of the MTSAT satellite-based augmentation system (MSAS). Preparations for the launch of the second MTSAT are being finalized. The European Geostationary Navigation Overlay System (EGNOS) began its initial operations phase in July. Reference stations for the wide area augmentation system (WAAS) were installed in Canada and Mexico. Over two hundred WAAS-based approach with vertical guidance (APV) procedures were implemented in the United States. The Indian SBAS system (GPS Aided GEO Augmented Navigation (GAGAN) system) is currently in its technology demonstration phase. Physical installation of reference stations at seven locations has been completed and integration has started. Development and prototype installation of ground-based augmentation system (GBAS) equipment are under way. The first Block IIR-M (replacement-modernized) satellite was added to the global positioning system (GPS) constellation in September. The first test satellite for the GALILEO system was launched in December.



GNSS Seminar held in Bangkok on 11 May 2005

Operational use of automatic dependent surveillance — broadcast (ADS-B)

The first meeting of the Operational Data Link Panel (OPLINKP), formerly the Automatic Dependent Surveillance Panel (ADSP), was held at ICAO Headquarters in Montréal from 12 to 23 September. Experts from 12 States and three international organizations assessed ongoing data link trials and finalized material which will assist in the implementation of air traffic services data link applications.

The panel concentrated on developing operational procedures to use ADS-B as a means of satisfying existing ground surveillance (radar-like) requirements. This effort was in concert with the work of the Separation and Airspace Safety Panel (SASP) on a comparative analysis of ADS-B and secondary surveillance radar (SSR). The work by SASP supports a horizontal separation minimum of 9.3 km (5.0 NM), based on radar and/or ADS-B. SASP also finalized a safety case document that addresses the issues in support of this separation minimum, based on ADS-B.

The aviation community has been investigating ADS-B with a view to providing, in the short term, a cost-effective replacement of current systems, and, in the long term, increasing airborne situational awareness and providing for airborne separation assistance. This initiative constitutes a major contribution towards the development of ATM surveillance systems, and supports, in a timely manner, the work of the planning and implementation regional groups (PIRGs) as well as States. The ICAO Air Navigation Commission is scheduled to review the OPLINKP/1 Report in 2006.

A study of an essential service and tourism development route scheme

In July, the Secretariat published a study arising from the work of the Fifth Worldwide Air Transport Conference (ATConf/5, Montréal, 2003), on an Essential Service and Tourism Development Route (ESTDR) scheme. The study examined how existing essential air services schemes have supported specific domestic and regional routes, and how such approaches might be applied, at States' discretion, in an international context. In cooperation with the World Tourism Organization (UNWTO), the study elaborated on a support mechanism, which could be incorporated into an ESTDR scheme, for the development of tourism routes, particularly to Least Developed Countries. In November, ICAO and UNWTO announced the launch of a programme of training courses in collaboration with Airport Strategy and Marketing (ASM) Limited to enable States to implement an ESTDR scheme efficiently and effectively.

A study of the safety and security aspects of liberalization

As one of the follow-up tasks of ATConf/5, the Secretariat conducted a study on the safety and security aspects of economic liberalization. The study reviewed various situations arising from the regulatory liberalization process and the evolution of business and operating practices in the air transport industry in order to identify areas which could have implications for safety and security. The purpose was to determine if any gaps exist in the current ICAO provisions, and to ensure that the global safety and security regulatory system, including relevant ICAO Standards and Recommended Practices (SARPs), continue to adequately address changes and developments in international civil aviation.

The findings of the study, reviewed by the Council in June, identified various situations that warrant closer attention by States, and provided clarification on how relevant ICAO provisions should be implemented to address some of these situations. By decision of the Council, the Secretariat study was disseminated under cover of State letter EC 2/93, AN 11/41-05/83 of 12 August 2005 to Contracting States for their information and appropriate action.

Maximizing civil aviation's economic contribution — challenges and potentials

ICAO's study on the *Economic Contribution of Civil Aviation* is published in ICAO Circular 292, Volume 1: Global Perspective and Volume 2: Assessment Methodologies. As one of the follow-up activities, the Air Transport Bureau organized, together with the World Bank (WB) and the Air Transport Action Group (ATAG), the first joint development forum on *Maximizing the Economic Contribution of Civil Aviation – Challenges and Potentials*, from 6 to 8 June at ICAO Headquarters. It was attended by 113 participants from regulatory bodies, transport ministries, civil aviation authorities, airlines, airports and aerospace manufacturers.

The objectives were to promote air transport as a catalyst for economic development, to advocate private/public sector partnerships, to review changes in policies, management and technologies affecting air transport, to address constraints in operating air transport systems and services, and to identify regulatory approaches, benchmarks and other measures for remedial action. Four working groups addressed constraints of civil aviation policy and planning, infrastructure and air transport

operations and, on that basis, drew conclusions regarding supportive approaches, policies, measures or instruments. Information on this forum's proceedings is available at <http://www.icao.int/ATWorkshop/>.

Single European sky implementation programme

In Europe, reform of ATM is a priority. Legislation within the European Union to establish a Single European Sky (SES) became effective in April 2004. For the objectives of the SES to be fully met, it was recognized at an early stage that substantial investment in new technology and changes to operating concepts and procedures would be necessary. All major members of the ATM community have recognized the need for collaborative efforts by the European States, within the SES framework. Consequently, a European Commission Regulation was adopted in 2005, setting common requirements for the provision of air navigation services in the member States of the European Union and European Economic Area.

A master plan for the future development of the European ATM Network, namely, the Single European Sky Implementation Programme (SESAR), is being developed. Its main objective is to achieve interoperability convergence by 2012 and full interoperability by 2022. It is to be organized in two phases:

- a two-year definition phase, starting in 2005; and
- a fifteen to twenty-five year development and implementation phase, commencing in 2007.

E. CONTINUITY – MAINTAIN THE CONTINUITY OF AVIATION OPERATIONS

Avian Influenza

Avian influenza is a disease normally confined to birds; however, in recent years, a variant of the virus began to affect humans. At the end of 2005, over 130 human cases had been reported and approximately half of those cases were fatal. According to the World Health Organization (WHO), there is a significant possibility that a human outbreak could become widespread, causing illness and death on a global scale. To mitigate the effects, the World Health Organization published a "Global Influenza Preparedness Plan", which includes recommendations for the aviation industry. However, further work is needed to develop more detailed guidelines of specific relevance to aviation; consequently, a small team, coordinated by ICAO with participation by the World Health Organization, the International Air Transport Association (IATA) and Airports Council International (ACI), was established to work with other agencies to develop such guidelines for publication in 2006.

F. RULE OF LAW – STRENGTHEN LAW GOVERNING INTERNATIONAL CIVIL AVIATION

Aviation law — Modernization of the Rome Convention of 1952

ICAO continued work on the modernization of the Rome Convention of 1952. A Special Group established by the Council held two meetings to consider a Draft Convention on Damage Caused by Foreign Aircraft to Third Parties. The Group paid particular attention to the possibility of establishing a mechanism to pay compensation to victims above the amounts which airlines may be able to provide through insurance.

Aviation security (AVSEC) — Measures to cover new and emerging threats

In view of the threat presented by man-portable air defense systems (MANPADS), ICAO participated in the UN Open-Ended Working Group on Tracing Illicit Small Arms and Light Weapons. On 17 June, the Working Group recommended an international instrument to be adopted by the UN General Assembly, which covers, *inter alia*, “portable launchers of anti-aircraft missile systems”.

CHAPTER 5. TECHNICAL CO-OPERATION

Brief summaries of technical cooperation projects are shown in Appendix 8 under country, inter-country and inter-regional listings.

1. SYNOPSIS

The different types of cooperation programmes administered by the Technical Co-operation Bureau (TCB) are:

1. United Nations Development Programme (UNDP), including cost sharing;
2. Trust Funds (TF), including Management Service Agreements (MSAs);
3. Civil Aviation Purchasing Service (CAPS); and
4. Associate Experts Programme.

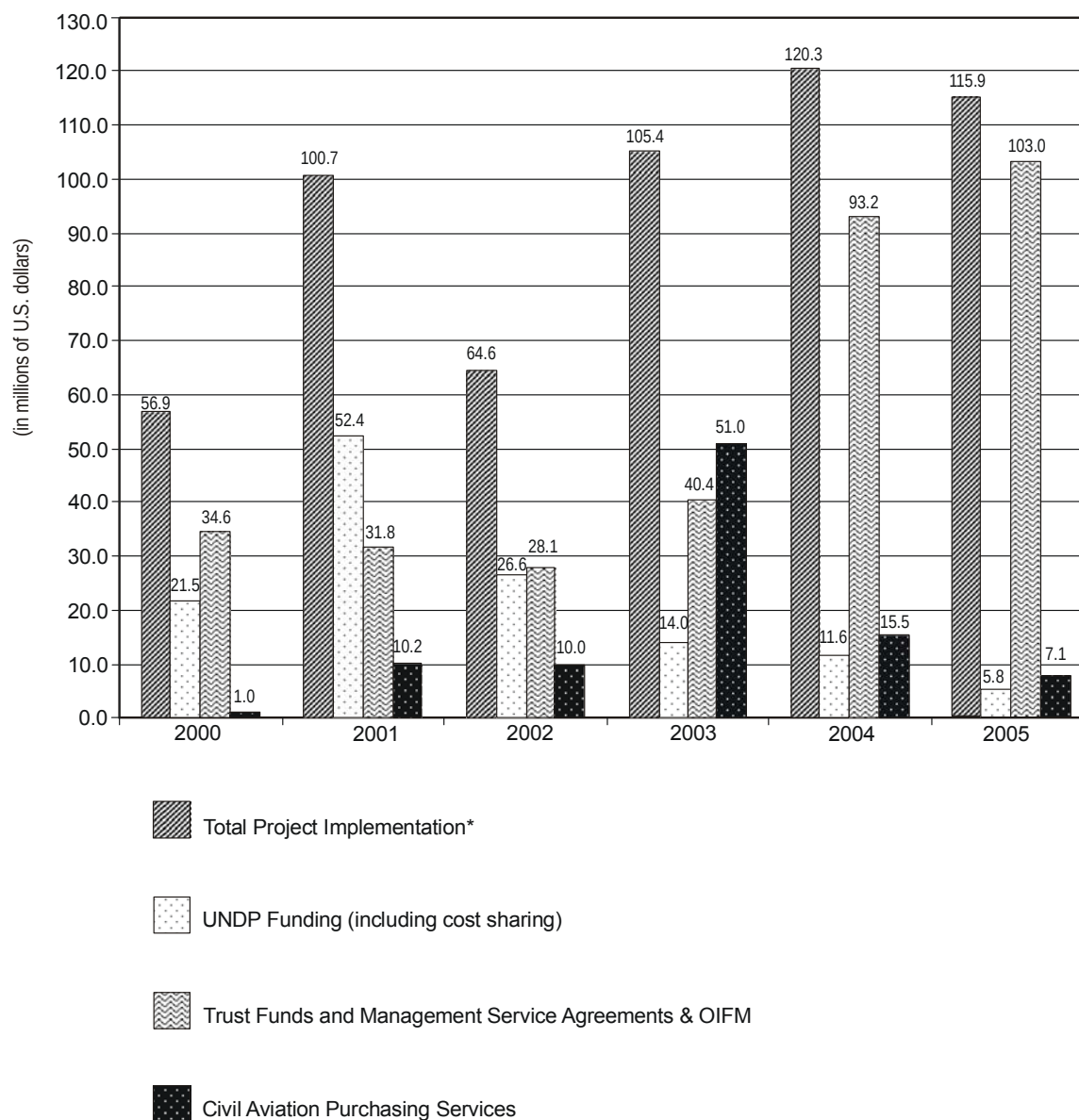
In addition, under the ICAO Objectives Implementation Funding Mechanism (OIFM), Airbus contributed \$200 000¹; the Boeing Company contributed \$200 000; and the European Commission contributed \$463 507. Details of these contributions are included in the project summaries.

The funds made available through ICAO to provide technical cooperation to States in 2005 were less than those provided in 2004. UNDP core funding in 2005 amounted to \$0.18 million. The total programme available for implementation in 2005, including portions of projects implemented by governments, amounted to \$146.0 million, of which \$115.9 million was actually implemented, representing a delivery rate of 79 per cent. ICAO project implementation under the UNDP programme, which was mostly cost sharing and included projects for which ICAO acted as Implementing Agency, were \$5.8 million in 2005, compared with \$11.6 million in 2004. Implementation in respect of Trust Fund and Management Service Agreement expenditures, including the ICAO OIFM, increased in 2005 to \$25.2 million compared with \$18.0 million in 2004. The Civil Aviation Purchasing Service (CAPS) which is, in effect, another form of Trust Fund, has 118 governments or organizations registered to use this facility. Its CAPS implementation decreased in 2005 to \$7.1 million compared with \$15.5 million in 2004.

Diagrams 5-1, 5-2A and 5-2B show the performance of ICAO technical cooperation over the years 2000 to 2005 in terms of the annual programme implementation and its three basic elements of cooperation — experts, fellowships and equipment.

1. All amounts listed in this chapter are in U.S. dollars.

Diagram 5-1. Annual Programme Implementation — ICAO Technical Co-operation Programme



*Includes expenditures incurred by ICAO in implementing agency capacity and procurement of equipment effected by ICAO, but payments made by the governments to suppliers.